DOUGLAS ITALIA S.p.A

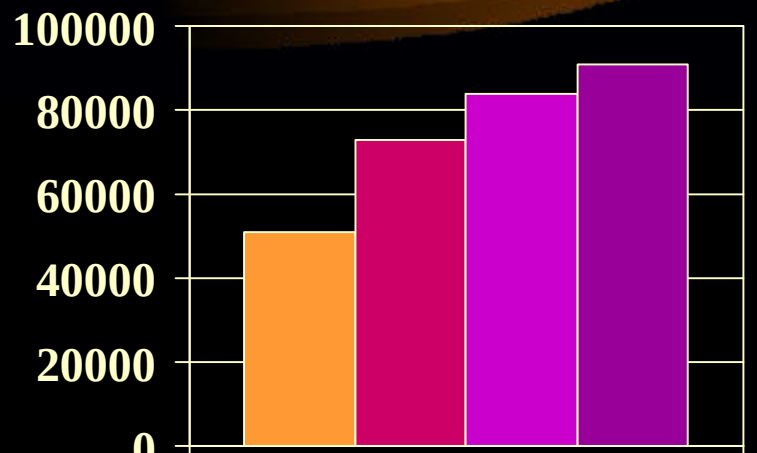
COMPANY PRESENTATION

PART OF THE DOUGLAS GROUP

GROUP TURNOVER

The Douglas Group due to its on-going commitment of investing and developing in new products and services has ensured a steady and continual growth rate is achieved and more importantly maintained.

Our priority is to continue in the same direction, ensuring that we as group continue to grow, develop and service all our customers.



	Lire x Million
1996	51000
1997	73000
1998	84000
1999	91000

THE COMPANY









INTRODUCTION

DOUGLAS ITALIA is a complete, ISO 9001 certified manufacturer of steam traps, manifolds, strainers/filters and sight flow indicators supplying world wide into the Petrochemical, Chemical, Power , Nuclear and OnShore/Offshore industries since its establishment in 1970.

DOUGLAS ITALIA is one of only a few companies worldwide who is manufacturering a complete range of steam traps and consequently able to offer the best type and style suited to meet the requirements of our customers specifications and applications. DOUGLAS ITALIA also includes in its range compressed air traps and air eliminators for liquid systems.

In addition to our steam trap range DOUGLAS ITALIA has developed over the years an extensive range of pipeline anxillaries specializing in the design and manufacture of Sight flow indicators, Conical , Y and Tee type Strainers, and more recently Simplex / Duplex strainers, Steam Separators and other products for special applications designed and developed within our in-house engineering products divison.

DOUGLAS ITALIA is a flexible and continously developing company. Within our engineering department part of the staff are dedicated to research and development, enabling us to improve our standard range of products and at the same time develop completely new ones to meet the every growing requests of our customers.

We hope that you will find our range of products of interest and you should require any further details or additonal information concerning DOUGLAS ITALIA or its products please do not hesitate to contact us, as we remain at your complete disposal.

COMMITMENT TO QUALITY

DOUGLAS ITALIA IS COMMITTED TO QUALITY

We consider quality not as an optional but as a must ensuring that all our customers receive not only a quality product but also a complete service which for us means:

- ISO 9001 certified quality system.
- Creating a quality culture.
- Ensuring all products are produced to the highest of standards.
- Ensuring deliveries are met.
- Giving complete satisfaction.

SGS ICS S.r.l.
Servizi di Certificazione Internazionale

Certificate N° 95.033

This is to certify that the Quality Management System of:

DOUGLAS ITALIA S.P.A.

Località Praciglie – 29013 CARPANETO PIACENTINO (PC) - Italy

has been assessed and registered as meeting the requirements of:

ISO 9001 / UNI EN ISO 9001 - Ed. 1994

Scope of registration:

Design, manufacturing and sales of steel and cast iron steam traps, steel, cast iron and bronze strainers, steel, cast iron and bronze sight glasses and steel manifolds.

SGS ICS S.r.l. - authorized representative

First issue: 07/08/1995
Last issue: 14/10/1998

SINCERT

Valid until 07/08/2001 *subject to satisfactory surveillance.*

PRODUCT RANGE

- ***STEAM TRAPS***
- ***THERMODYNAMIC***
- ***BALANCED PRESSURE THERMOSTATIC***
- ***THERMOSTATIC BIMETALLIC***
- ***FLOATING BALL***
- ***INVERTED BUCKET***
- ***COMPRESSED AIR TRAPS***
- ***AIR & GAS VENTS***
- ***STEAM MANIFOLDS***
- ***Y-TYPE STRAINERS***
- ***TEMPORARY STRAINERS***
- ***TEE- STRAINERS***
- ***SIMPLEX / DUPLEX STRAINERS***
- ***SIGHT FLOW INDICATORS***
- ***STEAM SEPARATORS***
- ***STEAM SILENCERS***
- ***EXHAUST HEADS***

STEAM TRAPS & MANIFOLDS

Thermodynamic

OPERATING PRINCIPLE;

is operated by the internal energy of steam.Condensate and air entering the trap raise the disc, and flow continously throughout the discharge orifice.

Steam entering the trap expands suddenly as it reaches the underside of the disc. The resulting high velocity causes a decrease in pressure under the disc (Bernouilli's Law). Steam above the disc is stationary and therefore at a higher pressure.

This pressure imbalance, forces the disc onto the seat, closing the trap. When condensate appears at the trap inlet, the steam above the disc condenses releasing the pressure and allowing the discharge cycle to repeat.

Standard Models:

DA

DC50

DC50L

DK 100

DK150

DF - Unversial Connector

Bi-Metallic Thermostatic

OPERATING PRINCIPLE:

is based on a balance between the steam force (pressure dependant), trying to open the discharge valve, and the opposing bi-metal force (temperature dependant), which tends to close it.

The trap is adjusted so that at satuarated steam temperature the bi-metal force will prevail, while with undercooled condensate and air, the force of pressure will prevail and open the valve.

For a well designed trap, the required undercooling should be the minimum possible throughout the designed pressure range.

Being the steam force a curve while the bi.metal force a straight line, an additional compensating spring will break the straight line to make it follow the curve of steam more closely, making field adjustment unnecessary.

Standard Models:

BB

BC8, BC20, BC30, BC60

BD, BD 60, BD 80, BD 100, BD 120

BE 8, BE 20, BE 30

BF

BV

MP

Balanced Pressure Thermostatic

OPERATING PRINCIPLE

is based on a balance between the steam pressure and the internal pressure of a thermostatic element, partially filled with a volatile liquid whose saturation temperature is slightly lower than that of water, at any given preesure.

At start-up, the trap is wide open facilitating rapid air removal and discharge of condensate. As the temperature approaches that of the steam, vaporization of the volatile liquid creates a pressure differential, causing bellows to expand and close the valve positively against its seat.

As the condensate cools, the volatile liquid condenses and lowers the internal pressure of the bellows. The resultant pressure differential, will favour the external pressure acting on the bellows to retract and open the valve, permitting the condensate discharge cycle to continue.

Standard Models:

TC2, TC4, TC20

TJ

TJL

TX

TZ

Floating Ball

OPERATING PRINCIPLE

is based on the different density between steam and condensate. The weight of the float acting through the lever, keeps the valve closed when the trap is empty.

As the condensate enters the trap it rises the float and opens the valve overcoming the pressure acting on it.If no more condensate reaches the trap the float descends closing the valve again.

When the condensate load is steady the float sets to produce a continous discharge. The condensate level in the body is always above the valve creating a perfect water seal.

The closed float trap is unable to discharge air, herefore a small thermostatic air vent is always installed inside the body at this purpose.

Standard Models:

GA

GB

GC

GD

GE

Inverted Bucket

OPERATING PRINCIPLE

is based on the different density between steam and condensate. The float is an open and inverted bucket.

Condensate enters the trap from the bottom and inside the bucket that is connected to the valve through a lever. Condensate completely fills the trap and is discharged through the valve.

Steam and air entering the submerged bucket causes it to float on the surrounding condensate thereby closing the discharge valve. Air discharge is ensured by a vent hole in the upper part of the bucket while steam condenses (and partially through the air vent).

The bucket will sink again (and open the valve) when condensate reaches a level where the weight of the bucket overcomes the pressure acting on the valve.

Standard Models:

IA

IB

IDD

IED

IF, IFS - Univeral Connectors

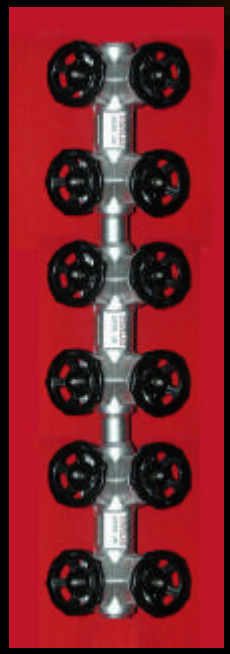
IK, IQ, IR, IT

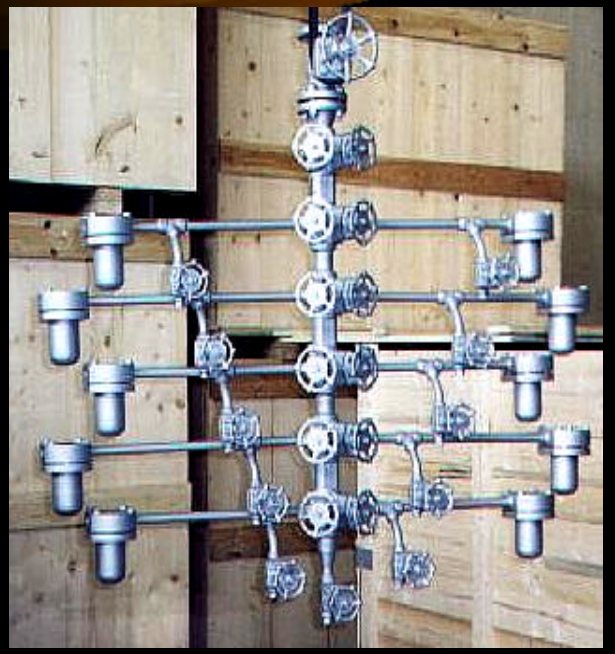
Steam Manifolds

Steam is widely used in both chemical and petrochemical plants and one of its most frequent uses is in the tracing of distrubtion lines to avoid freezing, and to reduce the viscosity of the fluids contained inside these lines or to collect condensate resulting from the line tracing.

Traditionally, these manifolds have been manufactured using welded pipe fabrications resulting in large numbers of welds, special supports and engineering leading to costly and inefficent systems.

Douglas Italia has by manfacturing an integral forged, piston valve,steam manifold allowed us to eliminate many of these problems and reduce costs significantly.





Standard Models:

MPV4

MPV8

MPV12

STRAINER PRODUCTS








Simplex Strainers

Douglas Italia fabricated simplex (basket) strainers have been specifically designed to meet customer requirements when particularly for high pressure applications or non-standard materials of construction are required.

Douglas Italia strainers are designed and fabricated to ASME VIII Div.1(available also with U-Stamp or ISPSEL) but can also be supplied to other pressure vessel codes i.e. ASME B31.3 etc.

Standard/Optional Featrures:
Size range 2” - 48”
Class 150lbs - 2500lbs
Ends - BW, RF, RTJ
Vents & Drains
Davit lift or other quick open devices
DP gauges

Standard Models:

MO 150, MO 300, MO 600, MO 600, MO 900

MO 1500, MO 2500

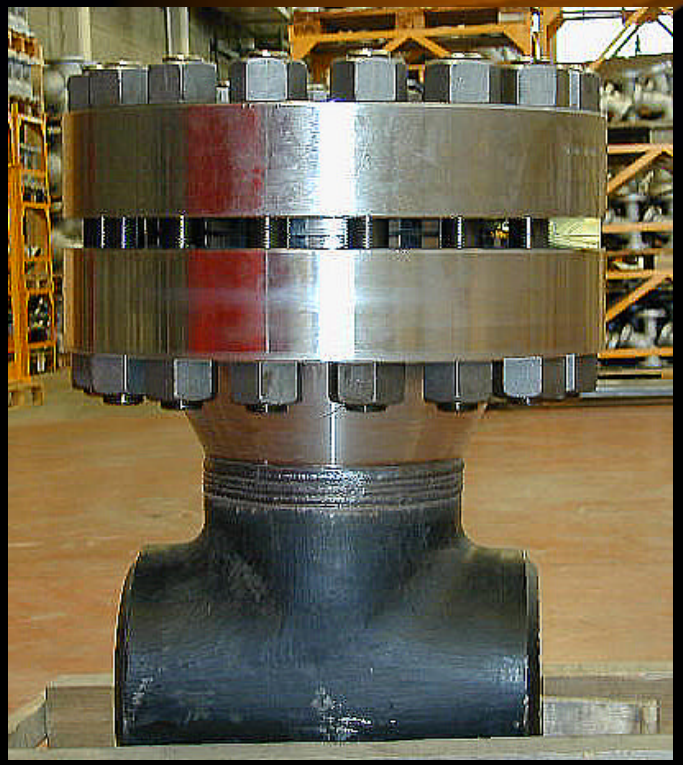
Tee - Strainers

The Douglas Italia Tee strainer is fabricated using standard fittings, is an in-line strainer and an economical solution when a permanent in-line strainer is required due to its simple construction.

Douglas Italia Tee strainers can be fabricated to satisfy any filtration requirement, in carbon steel, stainless steel and exotic materials upon request.

Douglas Italia Tee strainers offer a very high filtering area as standard, thereby ensuring a very low pressure drop.

Standard Features:
Butt Weld connection
Flanged connection - RF / RTJ
Size 1/2” upto 54”
Class 150LBS - 2500LBS



Standard Models:

FS150, FS300, FS600, FS900, FS1500, FS2500

Y- Strainers

Douglas Italia Y-Strainers are ideal for filtering either liquids or gases, generally being used to protect pipeline equipment such as pumps, meters, controls valves, steam traps etc.

Douglas Italia Y-Strainers are manufactured to satisfy any filtration requirement, in a cast, forged or fabricated arrangements and in materials such as carbon steel, stainless steel and with exotic materials upon request.

Standard Features:
Ends - SW, THRD, Flanged (ANSI/DIN) Flanged
Size 1/2” upto 24”
Class 150LBS - 2500LBS
Bolted Bonnet and Pressure Seal

Standard Models:

F16

F800, F1500

C150, C300, C600, C900, C1500, C2500

C16, C25, C64, C100

Temporary Strainers

Conical type strainers are designed for the efficent removal of solids in new pipelines during the start-up and commissioning phases.

Our temporary strainers are designed to be compact and rugged, for installation in either the vertical or horizontal position.

They can be manufactured using any kind of wire mesh or perforated plate, in carbon, stainless steel and exotic alloys.

They can be supplied as per our standard design which incorporate excellent flow characteristics or custom designed to meet our cutomers requirements.

Standard Features:
Flanged connection - RF / RTJ
Size 1/2” upto 48”
Class 150LBS - 2500LBS

Standard Models:

FT 1, FT2, FT3

Sight Flow Indicators

Douglas Italia sight flow indicators are designed to give maximum visibility during inspection of gas or liquid flowing in the pipeline.

Our sight flow indicators are available in a wide range of materials including bronze, carbon steel, stainless, alloy steel as standard with end connections and pressure ratings suitable for all applications.

We also are able to supply various internal flow indciators based on our customers requirements i.e.flappers, balls, spinners etc.

Standard Features:
Size 1/4” - 12”
Ends - SW, THRD, Flanged (ANSI/DIN)
Tempered / Borosilicate Glasses
Internal Indicators - Flappers, Balls, Chains, Spinners

Standard Models:

S158, S159, S160

S300

S150

SPECIAL PRODUCTS

- ***SAMPLE COOLERS***
- ***EXHAUST HEADS***
- ***STEAM SEPARATORS***
- ***SPECTACLE DISCS (FIG.8)***
- ***STEAM SILENCERS***

REGULAR CUSTOMERS

- ***ENGINEERING COMPANIES***
- ***BECHTEL LTD***
- ***ABB LUMMUS***
- ***FOSTER WHEELER***
- ***FLOUR DANIEL***
- ***TECHNIP***
- ***BROWN & ROOT***
- ***SK ENGINEERING***
- ***HYUNDAI HEAVY INDUSTRIES***
- ***DAELIM ENGINEERING***
- ***SNAMPROGETTI***
- ***TECNIMONT***
- ***KRUPP UHDE***
- ***LINDE***
- ***JGC***
- ***CHIYODA***

- ***END-USERS***
- ***SAUDI ARAMCO***
- ***ADNOC***
- ***KNPC***
- ***N.I.O.C***
- ***N.I.G.C.***
- ***ENEL***
- ***ENICHEM***
- ***PETRONAS***
- ***SHELL***
- ***AGIP***

DOUGLAS ITALIA

GENERAL CATALOGUE

DOUGLAS ITALIA

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DOUGLAS ITALIA

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DOUGLAS ITALIA S.P.A.

INTRODUCTION

We would like to take this opportunity to introduce our company DOUGLAS ITALIA as a complete manufacture of steam traps , manifolds , strainers and sight flow indicators supplying world wide into the Petrochemical , Chemical , Power , Nuclear and Onshore / Offshore industries since establishment in 1970 .

DOUGLAS ITALIA is part of douglas group of companies which includes DOUGLAS CHERO for forged valves , CHERO PIPING for fittings , valve / piping packages and LCM for pipeline ball valves giving us the advantage of being able to supply all our customers project piping requirements.

Our current manufacturing facilities , factory and workshop , are built over an area of 19.000 m^2 of which 5.000 m^2 are coverded. DOUGLAS ITALIA's current production capacity is approxiamately 10.000 pieces per month which covers our whole production range .

DOUGLAS ITALIA is one of the very few companies worldwide who actually produces a complete range of steam traps and is therefore able to offer the best type and style of suited to meet the requirements of our customer specificions and applications .
DOUGLAS ITALIA also manufacture compressed air traps and air eliminators for liquid system .

In addition to our steam trap range DOUGLAS ITALIA has developed over the years an extensive range of pipeline ancillaries in the manufacture of Sight Flow indicators , Conical , Y and Tee type Strainers , Bucket strainers and through our special engineering division strainers for special applications .

All material can be supplied in carbon steel and stainless steel which in most cases can be supplied in very short delivery times directly from our stock.
The manufacturing execution can be forged , cast or welded fabricated depending on the type and size .
DOUGLAS ITALIA can supply strainers from ½" to 56" for ratings up to 4500 lbs .

DOUGLAS ITALIA S.P.A.

Whenever additional ancillaries (especially for steam plants) are required , DOUGLAS ITALIA will be able to complete the package supplying also all the other products manufactured within the Douglas group , such as Ansi valves , Ansi fittings , ball valves as well as steam separator , condensate recovery pumps , vacuum breakers .

DOUGLAS ITALIA is a flexible and continuosly developing company .
Within our technical department part of staff is dedicated to researche and development , to enable our company to introduce improvements or complete new products on a regular basis .

DOUGLAS ITALIA' s quality system is certified according to ISO 9001 .
Our quality assurance departement , is an independent body , ensuring that our quality assurance procedures are followed and implemented throughout the entire cycle of the manufacturing process .

We hope that you will find our range of products of interest and in the event you should require any further details or additional information concerning either DOUGLAS ITALIA or the DOUGLAS group of companies plase do not hesitate to contact us , as we remain at your complete disposal .

DOUGLAS ITALIA S.P.A.

RANGE OF PRODUCTION

STEAM TRAPS :

- *THERMODYNAMIC – DISC TYPE*
- *THERMOSTATIC*
- *INVERTED BUCKET TYPE*
- *BALL FLOATING TYPE*
- *SPECIAL APPLICATIONS ON REQUEST*

MANIFOLDS FOR STEAM DISTRIBUTION AND CONDENSATE COLLECTION :

BUCKET STRAINERS :

- *SIMPLEX OR DUPLEX TYPE*
- *SIZES AND CLASSES AS PER CUSTOMER REQUIRMENTS*

STRAINERS :

" Y " – TYPE PERMANENT STRAINERS – FORGED / CAST

- *CLASS 150 LBS – ½" TO 24" – LARGER SIZE UPON REQUEST*
- *CLASS 300 LBS – ½" TO 24" – LARGER SIZE UPON REQUEST*
- *CLASS 600 LBS – ½" TO 20" – LARGER SIZE UPON REQUEST*
- *CLASS 900 LBS – ½" TO 16" – LARGER SIZE UPON REQUEST*
- *CLASS 1500 LBS – ½" TO 12" – LARGER SIZE UPON REQUEST*
- *CLASS 2500 LBS – ½" TO 8" – LARGER SIZE UPON REQUEST*

STRAINERS ARE AVAILABLE AS STANDARD BOLTED BONNET BUT UPON REQUEST FOR CLASS 600 LBS ABOVE IN PRESSURE SEAL DESIGN

CONICAL TEMPORARY STRAINERS AND BATH TUBES :

- *UP TO CLASS 2500 LBS FROM ½" TO 56" – LARGER SIZE UPON REQUEST*

SIGHT GLASSES – FLOW INDICATORS :

- *SIZE RANGE FROM ½" TO 16"*

TEE – STRAINERS :

- *CLASS 150 LBS – 2" TO 24" – LARGER SIZE UPON REQUEST*
- *CLASS 300 LBS – 2" TO 24" – LARGER SIZE UPON REQUEST*
- *CLASS 600 LBS – 2" TO 24" – LARGER SIZE UPON REQUEST*
- *CLASS 900 LBS – 2" TO 24" – LARGER SIZE UPON REQUEST*
- *CLASS 1500 LBS – 2" TO 24" – LARGER SIZE UPON REQUEST*
- *CLASS 2000 LBS – 2" TO 24" – LARGER SIZE UPON REQUEST*

MAIN MATERIALS OF PRODUCTIONS :

- *CARBON STEEL*
- *LOW CARBON STEEL*
- *ALLOY STEEL*
- *STAINLESS*
- *DUPLEX*

DOUGLAS ITALIA S.P.A.

STEAM TRAP OPERATING PRINCIPLES

THERMODYNAMIC STEAM TRAP

D

This type of trap is operated by the internal energy of steam. Condensate and air entering the trap raise the disc, and flow continuosly throughout the discharge orifice. Steam entering the trap expands suddenly as it reaches the underside of the disc. The resulting high flow velocity causes a decrease in pressure under the disc (BERNOULLI'S LAW). Steam above the is stationary, and therefore at higher pressure. This pressure imbalance, forces the disc onto the seat, closing the trap. When condensate appears at and the trap inlet, the steam above the disc condenses releasing the pressure and allowing the discharge cycle to repeat .

BALANCED PRESSURE THERMOSTATIC STEAM TRAP

T

The operating principle is based on a balance between the steam pressure and the internal pressure of a thermostatic element, partially filled with a volatile liquid whose saturation temperature is sligthly lower than that of water, at any given pressure. At startup, the trap is wide open facilitating rapid air removal and discharge of condensate. As the temperature approaches that of the steam, vaporization of the volatile liquid creates a pressure differential, causing the bellows to expand and close the valve positively againstits seat. As the condensate cools, the volatile liquid condenses and lowers the internal pressure of the bollows. The resultant pressure differential, will favour the external pressure acting on the bellows to retract and open the valve, permitting the condensate discharge cycle to continue .

BIMETALLIC THERMOSTATIC STEAM TRAP

B

The operating principle is based on a balance between the steam force (pressure dependent), trying to open the discharge valve, and the opposing bimetal force (temperature dependent), which tends to close it. The trap is adjusted so that at satured steam temperature the bimetal force will prevail, while with undercooled condensate and air, the force of pressure will prevail and open the valve. Foe a well designed trap, the required undercooling should be the minimum possible throughout the designed pressure range. Being the steam force a curve while the bimetal force a stright line, an additional compensating spring will break the straight line to make it follow the curve of steam more closely, making field adjustement unnecessary .

INVERTED BUCKET STEAM TRAP

I

The operating principle is based on the different density between steam and condensate. The float is an open inverted bucket. Condensate enters the trap from the bottom and inside the bucket that is connected to the valve through a lever. Condensate completely fills the trap and is discharged through the valve. Steam and air entering the submerged bucket causes it to float on the surrounding condensate thereby closing the discharge valve. Air discharge is ensure by a vent hole in the upper part of the bucket while steam condenses (and partially leak through the air vent). The bucket will sink again (and open the valve) when condensate reaches a level where the weight of the bucket overcomes the pressure acting on the valve.

BALL FLOAT STEAM TRAP

G

The operating principle is based on the different density between steam and condensate. The weight of the float, acting through the lever, keeps the valve closed when the trap is empty. As the condensate enters in the trap it rises the float and opens the valve overcoming the pressure acting on it. If no more condensate reaches the trap the float descends closing the valve again. When the condensate load is steady the float sets to produces a continuons discharge. The condensate level in the body is always above the valve creating a perfect water seal. The closed float trap is unable to discharge air, therefore a small thermostatic air vent is always installed inside the body at this purpose.

DOUGLAS ITALIA S.P.A.

SELECTION OF STEAM TRAP

The selection of steam traps for specific applications is made in two steps :

A. *Choice of type*
B. *Choiche of size*

Before discussing these steps it is necessary to make a general comment from the economic point of view. Giving as granted that the condensate must be discharged , it is highly important not to loose live steam in this process. Assuming that today's cost of steam is approximately 0.02 U.S. $ to a kilogram (and this is very conservative) it follows that a trap , sized for 200 Kg / hour losing 10% of its steam , in a refinery onstream 24 hour / day , costs in one year (200 x 0.1 x 365 x 0.02) U.S. $ 146 .
If this refinery has 1000 traps incorrectly sized and therefore in such conditions , the loss will be 146000 U.S. $ per year !
One can easily calculate what happens if the trap has failed in the open position instead of just losing some steam. The choice of the type and size fo a steam trap is a matter of great importance .

A. CHOICE OF TYPE

The main criteria for the selection of the type are (they cannot be listed in order of importance since it varies from application to application) :

- *Resistance to freezing*
- *Installation versatility*
- *Air venting*
- *Resistance to water hammer*
- *Cold condition (if waterlogging is not allowed the trap must be the open type)*
- *Type of discharge (with temperature regulating control valves , the modulating type is preferable)*
- *Heat exchange efficiency (traps discharging subcooled condensate do not allow an efficient heat exchange)*
- *Sensitivy to back pressure*
- *Reaction to load changes*
- *Pressure variations (types requiring cahnges of orifices for different pressure are unfit for wide variations)*
- *Dimension and weight*

For specific suggestion see " steam traps applications and selection " table .

B. CHOICE OF SIZE

There are 3 parametres to take into account for a correct sizing :

1. *Differential pressure*
2. *Condensate load to be discharged*
3. *Safety factor*

DOUGLAS ITALIA S.P.A.

1 – DIFFERENTIAL PRESSURE

The differential pressure is simply the difference between the pressure upstream and downstream of the trap. When a trap discharges at the atmosphere the downstream pressure is zero (we always refer to relative and not absolute pressure) and the differential pressure is the same of the line. When there is a condensate return system , there is always some pressure inside it due to friction and line lifting. The best way to know the value of downstream pressure (also called backpressure) is to install a pressure guage just after the trap. If this is not practical one should calculate the amout of backpressure by formulas of pressure drop in water ducts adding approx. 0.1 bar for each meter of rise .

2 – CONDENSATE LOAD

This is the second parameter to be introduced into the capacity tables. For draining of steam mains the quantity of condensate is related to the size of the pipe , to the steam pressure , to the efficiency of thermal insulation , to the outside temperate , to the wind force if any and to the temperature of the line (cold start – up or running conditions). In all the other applications traps are used to drains machines utilizing steam as a heating medium. In these cases the quantity of condensate to be removed will be equal to the amount of steam used by the machines to give the desired performance .

3 – SAFETY FACTOR

For many reasons the steam trap will be not able to handle on field the condensate loads given in the capacity tables. These reasons are :

- *Type of discharge (intermittent or continuons)*
- *How the condensate reaches the trap*
- *Presence of large quantities of air*
- *Influence of other traps discharging in the same return line*

Moreover there may be incorrect assumptions in the condensate load calculation and it is necessary to take into account that at cold start – up th equantity of condensate to be discharged is a lot more than at running conditions. To summarize , the size of the trap is selected entering the capacity tables with the differential pressure and with the condensate load multiplyed by the safety factor. A minimum safety factor 1.2 / 1.5 must be always taken into consideration. Higher safety factors 2 / 4 are required for certain applications .

INSTALLATION

Specific suggestions for a correct installation depend on the application and on the type of select trap. The following are some general comments :

- *The trap should always be installed below the drain point*
- *Try to avoild condensate lifting. If this is necessary install a check valve just after the trap*
- *Always install " Y " type strainer upstream, unless the trap has a built in " Y " type strainer*
- *Mechanical and thermodynamic traps should be installed as close as possible to the drain point*
- *Thermostatic traps should be installed at 1 – 2 mt from drain point. Do not insulate this cooling leg*
- *It is avdvisable to install a check valve up stream of an inverted bucket trap to prevent water seal loss*
- *A sight glass fitted down stream the trap allows a continuous check of the trap operation*
- *Always install isolating valves upstream and downstream for maintenance purposes*

DOUGLAS ITALIA S.P.A.

STEAM TRAP SELECTION AND APPLICATIONS

D = Thermodynamic
T = Balanced pressure thermostatic
B = Bimetallic thermostatic
I = Inverted bucket
G = Ball float with thermostatic air vent

APPLICATIONS		TRAP CHOICE
STEAM MAINS		***D – T***
TRACING LINES		***D – B***
THANKS	*Storage tanks*	***B - T***
	Oil tanks	
	Asphalt tanks	
	Dye vats	
	Evaporators	
	Blenders	
	Suction heaters	
HEATHER BATTERIES	*Unit heaters*	***G – I***
	Drying rooms	
	Greenhouse coils	
	Fin coils	
	Sugar dryers	
PANS	*Jacketed pans*	***G – I***
	Tilting kettles	
	Brew kettles	
	Candy kettles	
	Cheese kettles	
	Submerged coils	
HEAT EXCHANGERS	*Water heaters*	***G – I***
	Fuel oil preheaters	
	Plating tanks	
DRYING CILINDERS	*Paper dryers*	***G – I***
	Pulp dryers	
	Rotary dryers	
	Calenders	
PRESSES	*Plywood presses*	***D – T***
	Molding presses	
	Tire mold presses	
	Vulcanzing presses	
	Milk dryers	
OVENS	*Dressing sterilizers*	***G – T***
	Pressure cookers	
	Autoclaves	
	Drum dryers	
IRONING MACHINES		***I – D***
TURBINES		***D – I***
MARINE APPLICATIONS		***D – B***

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA

STEAM TRAPS

THERMODYNAMIC

BIMETALLIC THERMOSTATIC

BALANCED PRESSURE

INVERTED BUCKET

BALL FLOAT

GO BACK

DOUGLAS ITALIA

THERMODYNAMIC STEAM TRAPS

- DA
- DAA F6
- DF
- DC 50 A105
- DC 50 A105 1½”
- DC 50 A105 2”
- DC 50 L A105
- DC 50 A A105
- DC 50 F304
- DC 50 F304 1½”
- DC 50 F304 2”
- DC 50 L F304
- DC 50 A F304
- DK 100 A105
- DK 100 F22
- DK 150 F22
- DK 150 F304

GO BACK

DOUGLAS ITALIA S.P.A.

THERMODYNAMIC STEAM TRAPS
DA

THERMODYNAMIC

This type of trap uses steam dynamic energy to close the discharge orifice. A disc closes both the inlet and outlet orifice. Condensate can lift the disc and be discharge , but when steam is formed its dynamic energy will create a low pressure area (Bernulli Law) under the disc which draws it towards the seat.

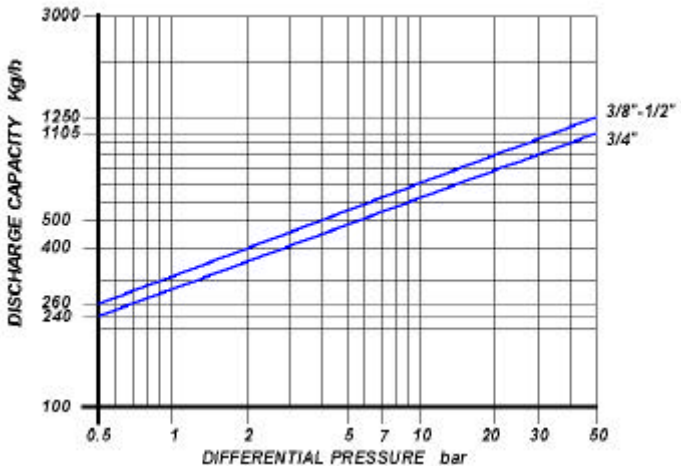
MAIN FEATURES

Reduced dimension and wheigt simple and reliable. It discharges air. It withstands waterhammer. Condensate discharge is intermittent. Some loss of live steam.

APPLICATIONS

- *Ironing machines*
- *Steam mains*
- *Tracing lines*
- *Turbines*
- *Marine applications*
- *Presses*

DISCHARGE CAPACITY



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

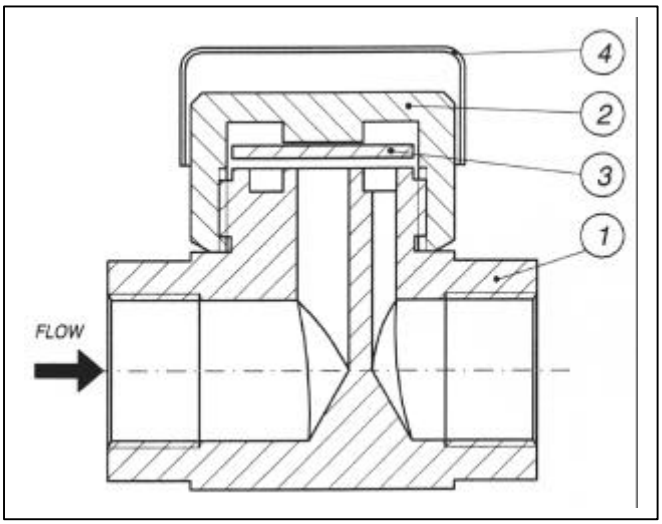
SIZES
3/8" – ½" – ¾"

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

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	*ANSI 600*
PMA: Max allowable pressure	*100 bar*
TMA: max allowable temperature	*425°C*
PMO: max working pressure	*50 bar*
TMO: max working temperature	*400°C*
Minimum Working Pressure	*0.25 bar*
PMOB: max working back pressure	*80%*

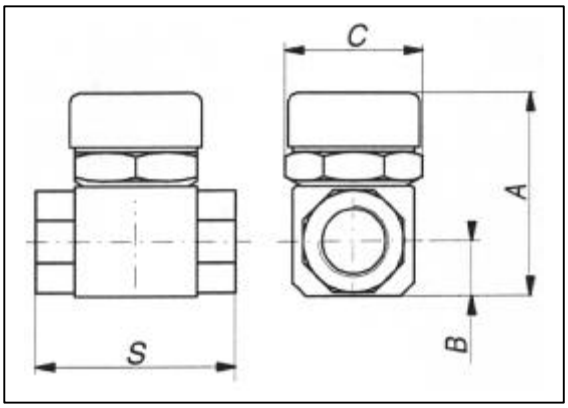
THERMODYNAMIC STEAM TRAPS

DA



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A 182 F6a	
2	Cover	ASTM A 182 F6a	
3	Disc	AISI 431	X
4	Insulating cap*	AISI 304	
*** optional**			

Size (inches)	S	A	B	C	Weight (Kg)
3/8"	70	65	16	47	0.6
½"	70	65	16	47	0.6
¾"	75	77	20	52	1.1



INSTALLATION

The steam trap can be istalled in any position, however it should be preferably fitted on horizontal pipelines.

How to order: i.e. DA ½" NPT

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DOUGLAS ITALIA S.P.A.

THERMODYNAMIC STEAM TRAPS
DAA F6

THERMODYNAMIC

This type of trap uses steam dynamic energy to close the discharge orifice. A disc closes both the inlet and outlet orifice. Condensate can lift the disc and be discharge , but when steam is formed its dynamic energy will create a low pressure area (Bernulli Law) under the disc which draws it towards the seat.

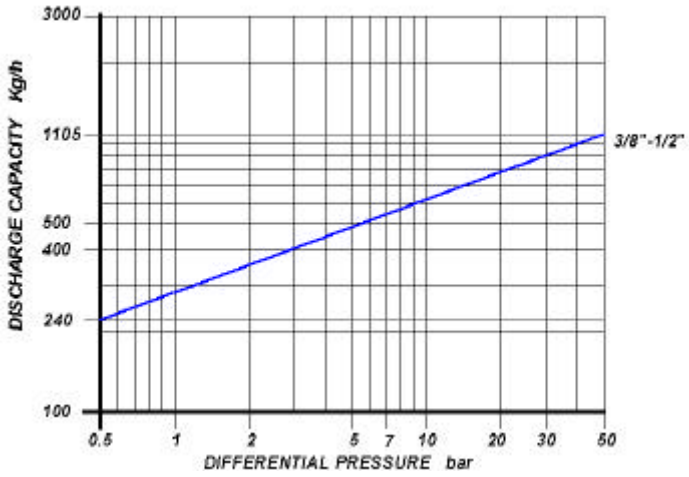
MAIN FEATURES

Reduced dimension and wheigt simple and reliable. ***Special air venting disc.*** *It withstands waterhammer. Condensate discharge is intermittent. Some loss of live steam.*

APPLICATIONS

- *Ironing machines*
- *Steam mains*
- *Tracing lines*
- *Turbines*
- *Marine applications*
- *Presses*

DISCHARGE CAPACITY



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

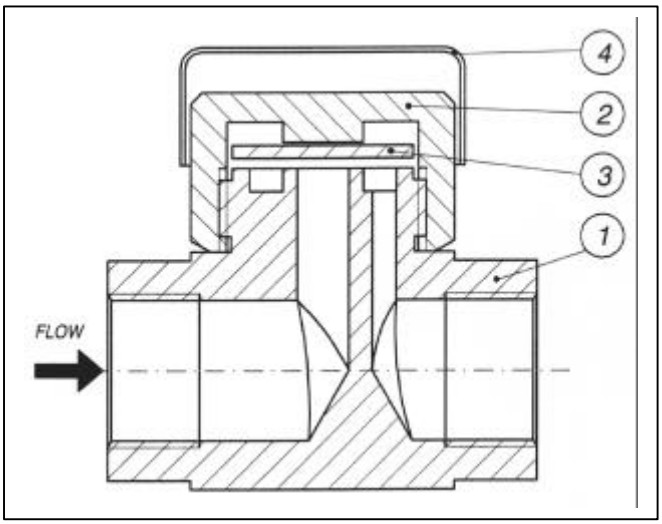
SIZES
3/8" – ½"

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

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	*ANSI 600*
PMA: Max allowable pressure	*100 bar*
TMA: max allowable temperature	*390°C*
PMO: max working pressure	*50 bar*
TMO: max working temperature	*350°C*
Minimum Working Pressure	*0.25 bar*
PMOB: max working back pressure	*80%*

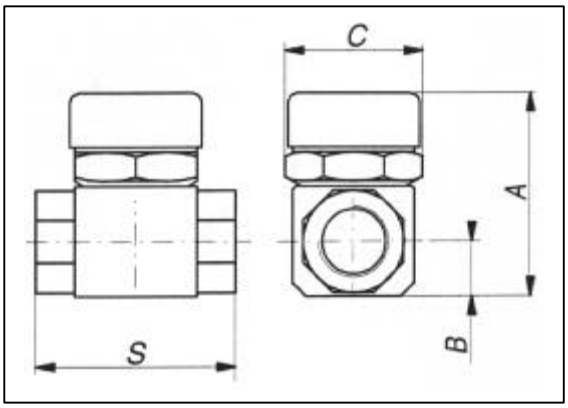
THERMODYNAMIC STEAM TRAPS

DAA F6



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A 182 F6a	
2	Cover	AISI 303	X
3	Disc	AISI 431	X
4	Insulating cap*	AISI 304	
*** optional**			

Size (inches)	S	A	B	C	Weight (Kg)
3/8"	70	65	16	47	0.6
½"	70	65	16	47	0.6



INSTALLATION

The steam trap can be istalled in any position, however it should be preferably fitted on horizontal pipelines.

How to order: i.e. *DAA F6 ½" NPT*

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DOUGLAS ITALIA S.P.A.

THERMODYNAMIC STEAM TRAPS
DF

THERMODYNAMIC

This type of trap uses steam dynamic energy to close the discharge orifice. A disc closes both the inlet and outlet orifice. Condensate can lift the disc and be discharge , but when steam is formed its dynamic energy will create a low pressure area (Bernulli Law) under the disc which draws it towards the seat.

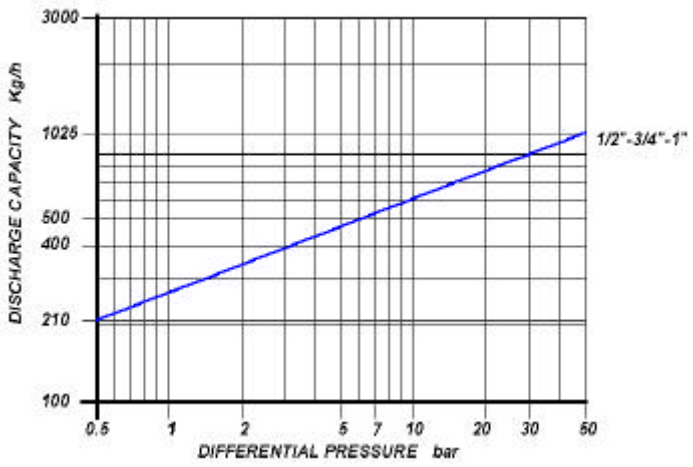
MAIN FEATURES

Reduced dimension and wheigt simple and reliable. It discharges air. It withstands waterhammer. Condensate discharge is intermittent. Some loss of live steam.

APPLICATIONS

- *Ironing machines*
- *Steam mains*
- *Tracing lines*
- *Turbines*
- *Marine applications*
- *Presses*

DISCHARGE CAPACITY



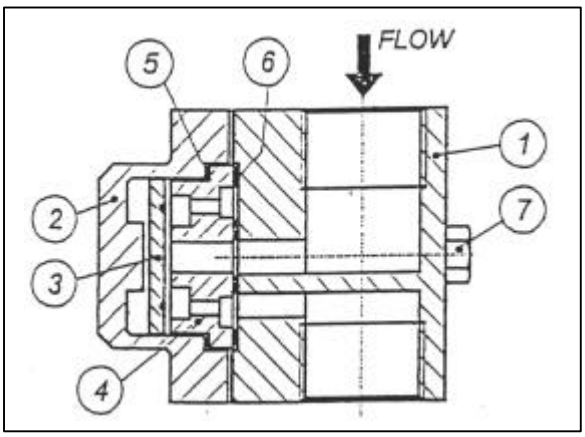
Cold water capacities are 2 to 4 times greater than the above .
Safety factor = 1.2 – 1.5

SIZES
½" – ¾" – 1"

CONNECTIONS	
Screwed	ANSI B1.20.1 (NPT) / BS21 (BSP)
Socket Welding	ANSI B 16.11

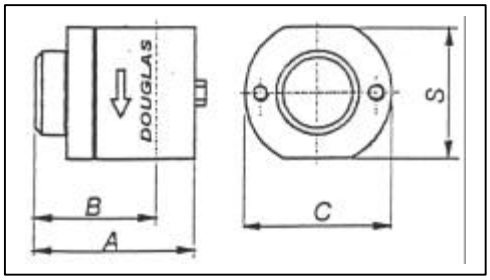
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 300
PMA: Max allowable pressure	50 bar
TMA: max allowable temperature	500°C
PMO: max working pressure	50 bar
TMO: max working temperature	380°C

THERMODYNAMIC STEAM TRAPS
DF



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A 182 F304	
2	Cover	ASTM A 182 F304	X
3	Disc	AISI 431	X
4	Seat	AISI 431	
5	Gasket	Non asbetos material	
6	Gasket	Non asbetos material	
7	Bolts	ASTM A 193 B 8	

Size (inches)	S	A	B	C	Weight (Kg)
½"	60	78	60	70	1.5
¾"	60	78	60	70	1.5
1"	68	83	62	80	1.8



INSTALLATION
The steam trap can be installed in any position, however it should be preferably fitted on horizontal pipelines.

HOW TO SERVICE
By installing a new seat-disc assembly you can bring the steam trap to the "as new from factory" condition. This operation is carried out in a few minutes without removing steam trap from the pipeline. Unscrew cover (2) and remove disc(3), seat(4) and clean the inside of the trap. Put in new parts. Scew on cover(2) using a high temperature grease.

NOTE
The thermodynamic steam trap DF can be installed on the same connector of our inverted bucket steam trap mod. IF. Please contact our technical departement.

How to order: i.e.

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DOUGLAS ITALIA S.P.A.

THERMODYNAMIC STEAM TRAPS
DC 50 A 105

THERMODYNAMIC

This type of trap uses steam dynamic energy to close the discharge orifice. A disc closes both the inlet and outlet orifice. Condensate can lift the disc and be discharge , but when steam is formed its dynamic energy will create a low pressure area (Bernulli Law) under the disc which draws it towards the seat.

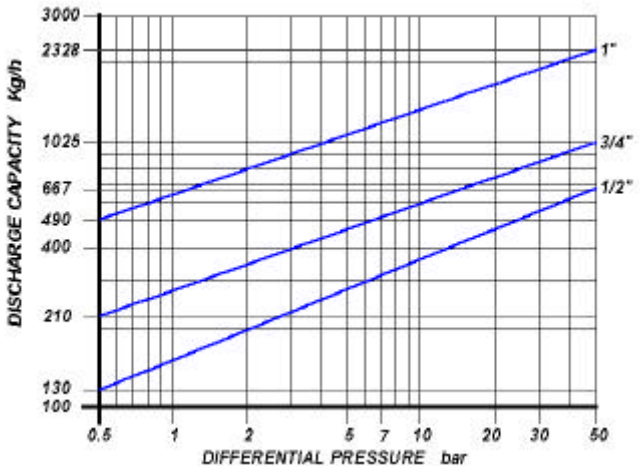
MAIN FEATURES

Reduced dimension and wheigt simple and reliable. It discharges air. It withstands waterhammer. Condensate discharge is intermittent. Some loss of live steam.

APPLICATIONS

- *Ironing machines*
- *Steam mains*
- *Tracing lines*
- *Turbines*
- *Marine applications*
- *Presses*

DISCHARGE CAPACITY



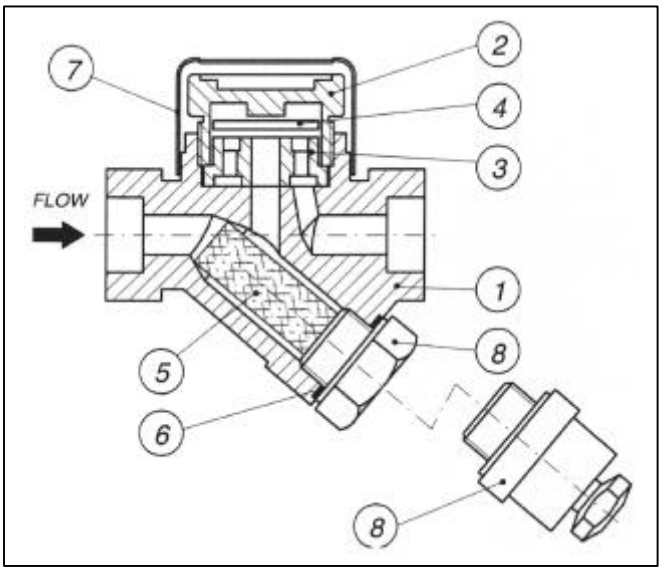
Cold water capacities are 2 to 4 times greater than the above .
Safety factor = 1.2 – 1.5

SIZES
½" – ¾" – 1"

CONNECTIONS	
Screwed	ANSI B1.20.1 (NPT) / BS21 (BSP)
Socket Welding	ANSI B16.11
Flanged	ANSI 150#/300#/600#/UNI/DIN

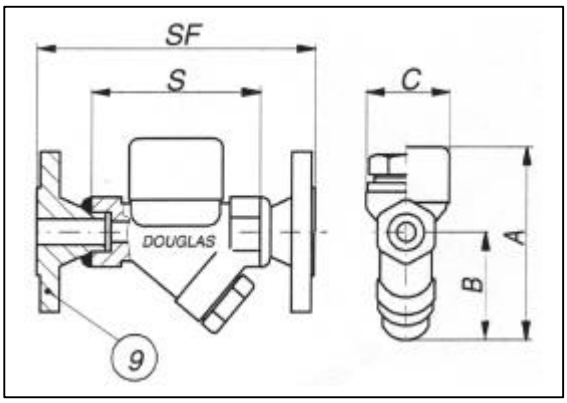
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 600
PMA: Max allowable pressure	100 bar
TMA: max allowable temperature	390°C
PMO: max working pressure	50 bar
TMO: max working temperature	350°C
Minimum Working Pressure	0.25 bar
PMOB: max working back pressure	80%

THERMODYNAMIC STEAM TRAPS
DC 50 A 105



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A 105	
2	Cover	AISI 303	
3	Seat	AISI 431	X
4	Disc	AISI 431	X
5	Screen	AISI 304	X
6	Gasket	316/GRAPHITE	X
7	Insulating cap*	AISI 304	
8	Strainer cap	ASTM A105	
8	Blow off valve*	AISI 416	
9	Flange	ASTM A 105	
*** optional**			

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	85	108	55	48	0.8	151	2.4	145	2.2	165	2.4	175	2.5
¾"	100	120	60	54	1.3	170	3.6	170	3	190	4.1	200	4.5
1"	108	130	70	62	3.4	178	5.2	188	4.6	198	5.8	218	6.2



INSTALLATION

The steam trap can be installed in any position, however it should be preferably fitted on horizontal pipelines.

HOW TO SERVICE

By installing a new seat-disc assembly you can bring the steam trap to the "as new from factory" condition. This operation is carried out in a few minutes without removing steam trap from the pipeline. Unscrew cover (2) and remove disc(4), seat(3) and clean the inside of the trap. Put in new parts. Scew on cover(2) using a high temperature grease. To service the strainer unscrew cap(8), withdraw screen(5) and clean or replace it. Screwing cover back in place always fit a new gasket(6).

How to order: i.e. *DC 50 A105 ½" 150#RF*

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DOUGLAS ITALIA S.P.A.

THERMODYNAMIC STEAM TRAPS

DC50 A105 ø 1.1/2”

THERMODYNAMIC

This type of trap uses steam dynamic energy to close the discharge orifice. A disc closes both the inlet and outlet orifice. Condensate can lift the disc and be discharge , but when steam is formed its dynamic energy will create a low pressure area (Bernulli Law) under the disc which draws it towards the seat.

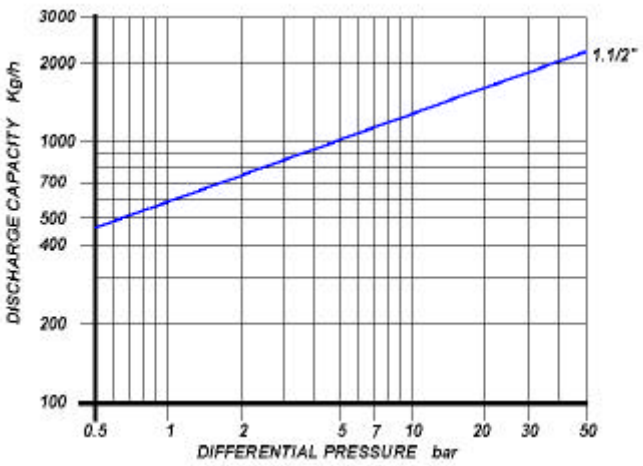
MAIN FEATURES

Reduced dimension and wheigt simple and reliable. It discharges air. It withstands waterhammer. Condensate discharge is intermittent. Some loss of live steam.

APPLICATIONS

- *Ironing machines*
- *Steam mains*
- *Tracing lines*
- *Turbines*
- *Marine applications*
- *Presses*

DISCHARGE CAPACITY



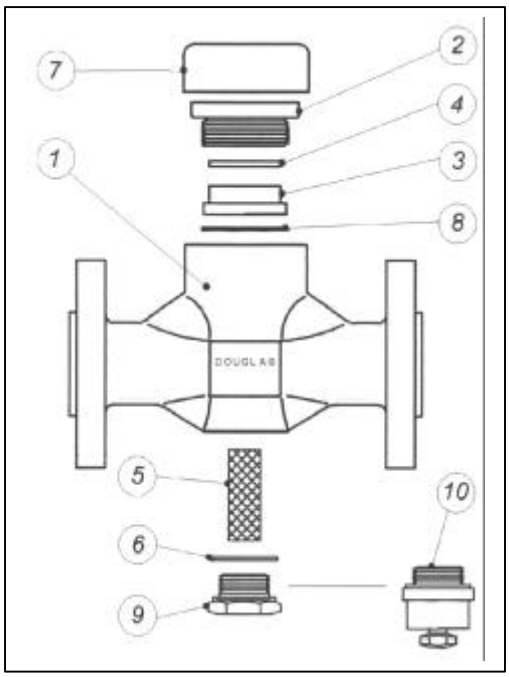
Cold water capacities are 2 to 4 times greater than the above .
Safety factor = 1.2 – 1.5

SIZES
1½”

CONNECTIONS	
Screwed	ANSI B1.20.1 (NPT) / BS21 (BSP)
Socket Welding	ANSI B16.11
Flanged	ANSI 150#/300#/600#/UNI/DIN

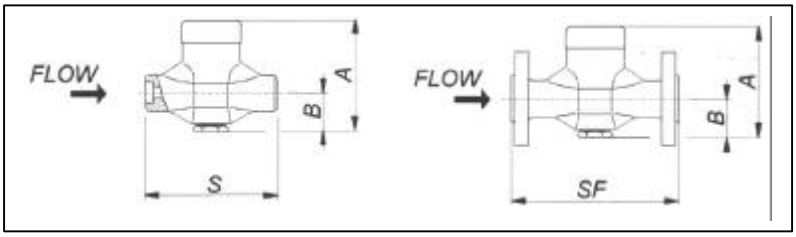
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 600
PMA: Max allowable pressure	68 bar
TMA: max allowable temperature	400°C
PMO: max working pressure	50 bar
TMO: max working temperature	350°C
Minimum Working Pressure	0.25 bar
PMOB: max working back pressure	80%

THERMODYNAMIC STEAM TRAPS
DC 50 A 105 ø 1.1/2”



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	A 105	
2	Cover	AISI 303	
3	Seat	AISI 431 HT	X
4	Disc	AISI 431 HT	X
5	Screen	AISI 304	X
6	Gasket	316 / GRAPHITE	X
7	Insulating cap *	AISI 304	X
8	Gasket	Reinforced graphite	X
9	Strainer cap	AISI 105	X
10	Blow – off valve *	AISI 416	X
*** optional**			

					Flanged							
Size (inches)	S	A	B	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
					SF	Kg	SF	Kg	SF	Kg	SF	Kg
1½”	125	130	50	3.5	205	6	215	6.5	225	9.5	245	10.5



INSTALLATION

The steam trap can be installed in any position, however it should be preferably fitted on horizontal pipelines.

HOW TO SERVICE

By installing a new seat-disc assembly you can bring the steam trap to the “as new from factory” condition. This operation is carried out in a few minutes without removing steam trap from the pipeline. Unscrew cover (2) and remove disc (4), seat (3) and gasket (4)and clean the inside of the trap. Put in new part aligning the gasket hole with the hole inthe trap body. Screw on cover (2) using a high temperature grease. To service the strainer unsrew plug (9), withdraw screen (5) and clean or replace it. Screwing cover back in place always fit a new gasket (6).

How to order: i.e. *DC 50 A105 1½” NPT*

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DOUGLAS ITALIA S.P.A.

THERMODYNAMIC STEAM TRAPS
DC50 A105 ø 2”

THERMODYNAMIC

This type of trap uses steam dynamic energy to close the discharge orifice. A disc closes both the inlet and outlet orifice. Condensate can lift the disc and be discharge , but when steam is formed its dynamic energy will create a low pressure area (Bernulli Law) under the disc which draws it towards the seat.

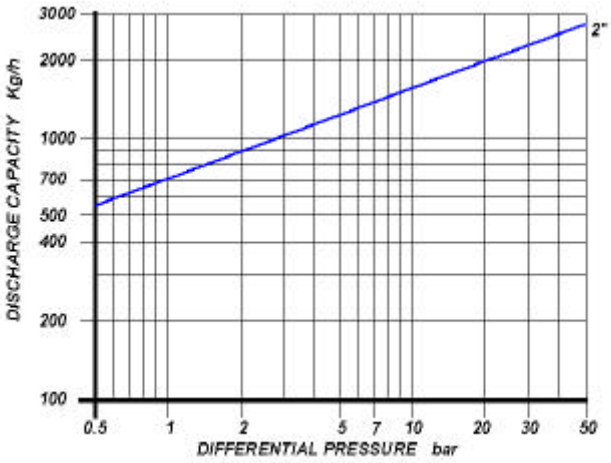
MAIN FEATURES

Reduced dimension and wheigt simple and reliable. It discharges air. It withstands waterhammer. Condensate discharge is intermittent. Some loss of live steam.

APPLICATIONS

- *Ironing machines*
- *Steam mains*
- *Tracing lines*
- *Turbines*
- *Marine applications*
- *Presses*

DISCHARGE CAPACITY



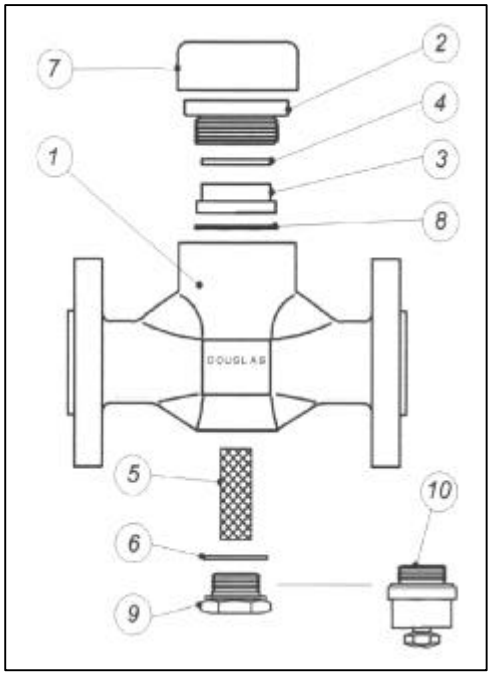
Cold water capacities are 2 to 4 times greater than the above . Safety factor = 1.2 – 1.5

SIZES
2”

CONNECTIONS	
Screwed	*ANSI B1.20.1 (NPT) / BS21 (BSP)*
Socket Welding	*ANSI B16.11*
Flanged	*ANSI 150#/300#/600#/UNI/DIN*

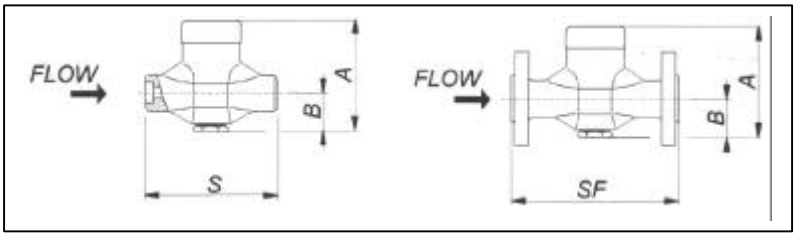
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	*ANSI 600*
PMA: Max allowable pressure	*68 bar*
TMA: max allowable temperature	*400°C*
PMO: max working pressure	*50 bar*
TMO: max working temperature	*350°C*
Minimum Working Pressure	*0.25 bar*
PMOB: max working back pressure	*80%*

THERMODYNAMIC STEAM TRAPS
DC 50 A 105 ø 2”



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	A 105	
2	Cover	AISI 303	
3	Seat	AISI 431 HT	X
4	Disc	AISI 431 HT	X
5	Screen	AISI 304	X
6	Gasket	316 / GRAPHITE	X
7	Insulating cap *	AISI 304	X
8	Gasket	Reinforced graphite	X
9	Strainer cap	AISI 105	X
10	Blow – off valve *	AISI 416	X
*** optional**			

					Flanged							
Size (inches)	S	A	B	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
					SF	Kg	SF	Kg	SF	Kg	SF	Kg
2”	130	130	50	4.3	225	6.4	256	8	269	10	288	11.2



INSTALLATION

The steam trap can be installed in any position, however it should be preferably fitted on horizontal pipelines.

HOW TO SERVICE

By installing a new seat-disc assembly you can bring the steam trap to the “as new from factory” condition. This operation is carried out in a few minutes without removing steam trap from the pipeline. Unscrew cover (2) and remove disc (4), seat (3) and gasket (4)and clean the inside of the trap. Put in new part aligning the gasket hole with the hole inthe trap body. Screw on cover (2) using a high temperature grease. To service the strainer unsrew plug (9), withdraw screen (5) and clean or replace it. Screwing cover back in place always fit a new gasket (6).

How to order: i.e. *DC 50 A105 2” NPT*

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DOUGLAS ITALIA S.P.A.

THERMODYNAMIC STEAM TRAPS
DC50 A105 ø 2”

THERMODYNAMIC

This type of trap uses steam dynamic energy to close the discharge orifice. A disc closes both the inlet and outlet orifice. Condensate can lift the disc and be discharge , but when steam is formed its dynamic energy will create a low pressure area (Bernulli Law) under the disc which draws it towards the seat.

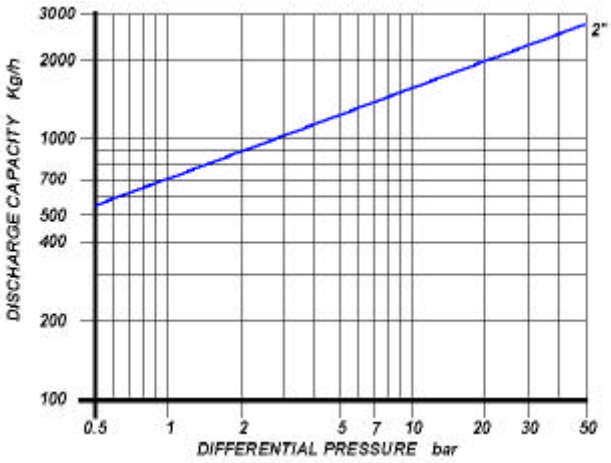
MAIN FEATURES

Reduced dimension and wheigt simple and reliable. It discharges air. It withstands waterhammer. Condensate discharge is intermittent. Some loss of live steam.

APPLICATIONS

- *Ironing machines*
- *Steam mains*
- *Tracing lines*
- *Turbines*
- *Marine applications*
- *Presses*

DISCHARGE CAPACITY



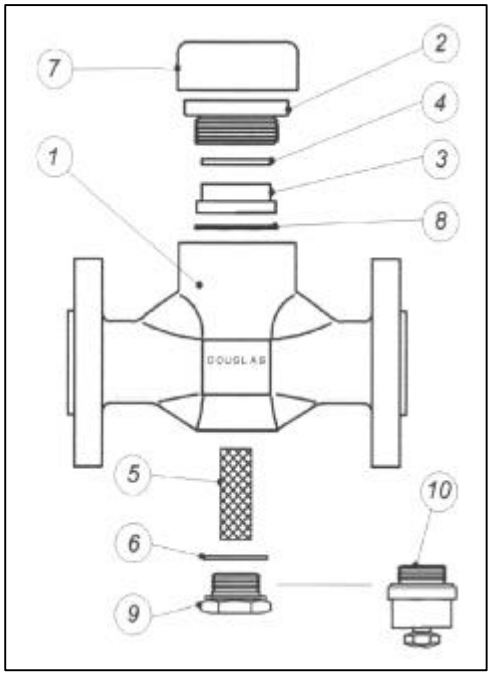
Cold water capacities are 2 to 4 times greater than the above . Safety factor = 1.2 – 1.5

SIZES
2”

CONNECTIONS	
Screwed	*ANSI B1.20.1 (NPT) / BS21 (BSP)*
Socket Welding	*ANSI B16.11*
Flanged	*ANSI 150#/300#/600#/UNI/DIN*

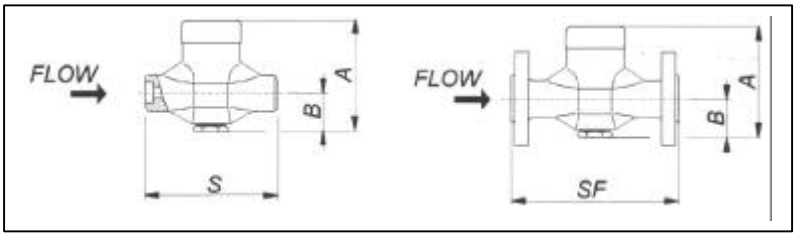
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	*ANSI 600*
PMA: Max allowable pressure	*68 bar*
TMA: max allowable temperature	*400°C*
PMO: max working pressure	*50 bar*
TMO: max working temperature	*350°C*
Minimum Working Pressure	*0.25 bar*
PMOB: max working back pressure	*80%*

THERMODYNAMIC STEAM TRAPS
DC 50 A 105 ø 2”



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	A 105	
2	Cover	AISI 303	
3	Seat	AISI 431 HT	X
4	Disc	AISI 431 HT	X
5	Screen	AISI 304	X
6	Gasket	316 / GRAPHITE	X
7	Insulating cap *	AISI 304	X
8	Gasket	Reinforced graphite	X
9	Strainer cap	AISI 105	X
10	Blow – off valve *	AISI 416	X
*** optional**			

					Flanged							
Size (inches)	S	A	B	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
					SF	Kg	SF	Kg	SF	Kg	SF	Kg
2”	130	130	50	4.3	225	6.4	256	8	269	10	288	11.2



INSTALLATION

The steam trap can be installed in any position, however it should be preferably fitted on horizontal pipelines.

HOW TO SERVICE

By installing a new seat-disc assembly you can bring the steam trap to the “as new from factory” condition. This operation is carried out in a few minutes without removing steam trap from the pipeline. Unscrew cover (2) and remove disc (4), seat (3) and gasket (4)and clean the inside of the trap. Put in new part aligning the gasket hole with the hole inthe trap body. Screw on cover (2) using a high temperature grease. To service the strainer unsrew plug (9), withdraw screen (5) and clean or replace it. Screwing cover back in place always fit a new gasket (6).

How to order: i.e. *DC 50 A105 2” NPT*

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DOUGLAS ITALIA S.P.A.

THERMODYNAMIC STEAM TRAPS
LOW CAPACITIES
DC 50L A 105

THERMODYNAMIC

This type of trap uses steam dynamic energy to close the discharge orifice. A disc closes both the inlet and outlet orifice. Condensate can lift the disc and be discharge , but when steam is formed its dynamic energy will create a low pressure area (Bernulli Law) under the disc which draws it towards the seat.

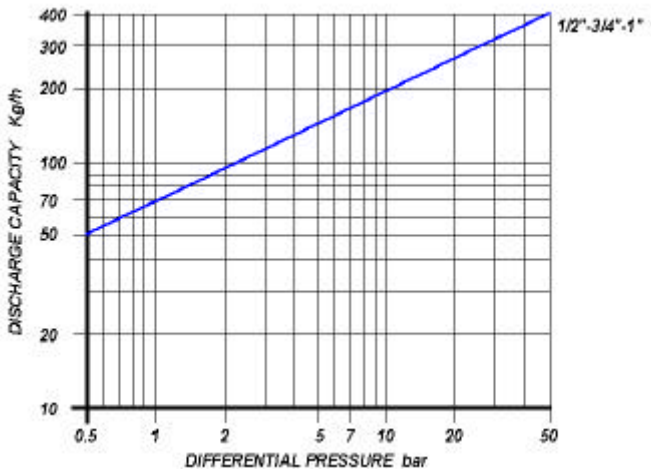
MAIN FEATURES

Reduced dimension and wheigt simple and reliable. It discharges air. It withstands waterhammer. Condensate discharge is intermittent. Some loss of live steam.

APPLICATIONS

- *Ironing machines*
- *Steam mains*
- *Tracing lines*
- *Turbines*
- *Marine applications*
- *Presses*

DISCHARGE CAPACITY



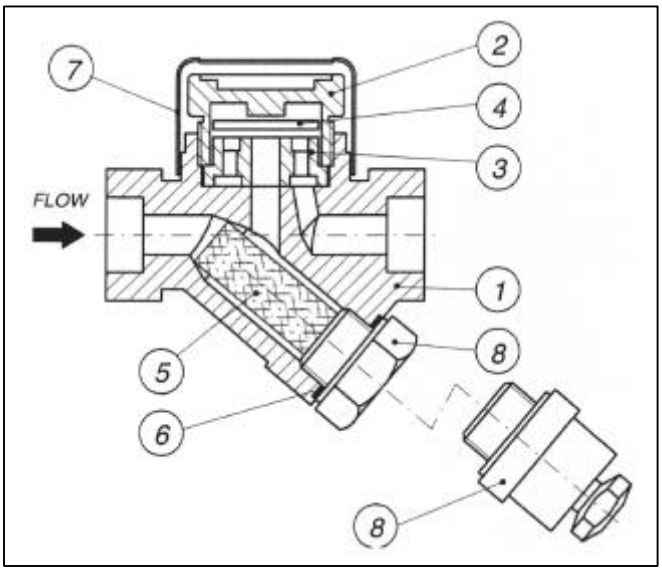
Cold water capacities are 2 to 4 times greater than the above .
Safety factor = 1.2 – 1.5

SIZES
½" – ¾" – 1"

CONNECTIONS	
Screwed	ANSI B1.20.1 (NPT) / BS21 (BSP)
Socket Welding	ANSI B16.11
Flanged	ANSI 150#/300#/600#/UNI/DIN

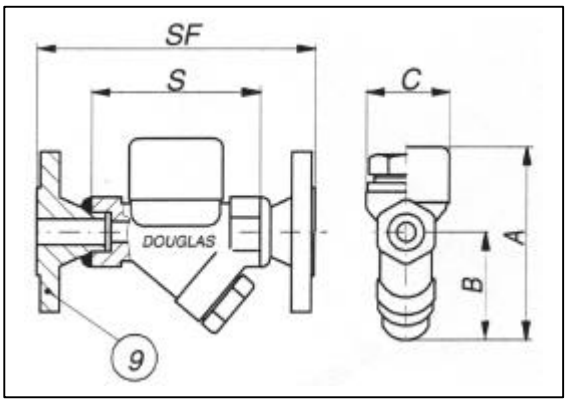
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 600
PMA: Max allowable pressure	100 bar
TMA: max allowable temperature	390°C
PMO: max working pressure	50 bar
TMO: max working temperature	350°C
Minimum Working Pressure	0.25 bar
PMOB: max working back pressure	80%

THERMODYNAMIC STEAM TRAPS LOW CAPACITIES
DC 50L A 105



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A 105	
2	Cover	AISI 303	
3	Seat	AISI 431	X
4	Disc	AISI 431	X
5	Screen	AISI 304	X
6	Gasket	316/GRAPHITE	X
7	Insulating cap*	AISI 304	
8	Strainer cap	ASTM A105	
8	Blow off valve*	AISI 416	
9	Flange	ASTM A 105	
*** optional**			

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	85	108	55	48	0.8	151	2.4	145	2.2	165	2.4	175	2.5
¾"	100	120	60	54	1.3	170	3.6	170	3	190	4.1	200	4.5
1"	108	130	70	62	3.4	178	5.2	188	4.6	198	5.8	218	6.2



INSTALLATION
The steam trap can be installed in any position, however it should be preferably fitted on horizontal pipelines.

HOW TO SERVICE
By installing a new seat-disc assembly you can bring the steam trap to the "as new from factory" condition. This operation is carried out in a few minutes without removing steam trap from the pipeline. Unscrew cover (2) and remove disc(4), seat(3) and clean the inside of the trap. Put in new parts. Scew on cover(2) using a high temperature grease. To service the strainer unscrew cap(8), withdraw screen(5) and clean or replace it. Screwing cover back in place always fit a new gasket(6).

How to order: i.e. *DC 50L A105 ½" 150 RF*

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DOUGLAS ITALIA S.P.A.

THERMODYNAMIC STEAM TRAPS

DC 50/A A105

THERMODYNAMIC

This type of trap uses steam dynamic energy to close the discharge orifice. A disc closes both the inlet and outlet orifice. Condensate can lift the disc and be discharge , but when steam is formed its dynamic energy will create a low pressure area (Bernulli Law) under the disc which draws it towards the seat.

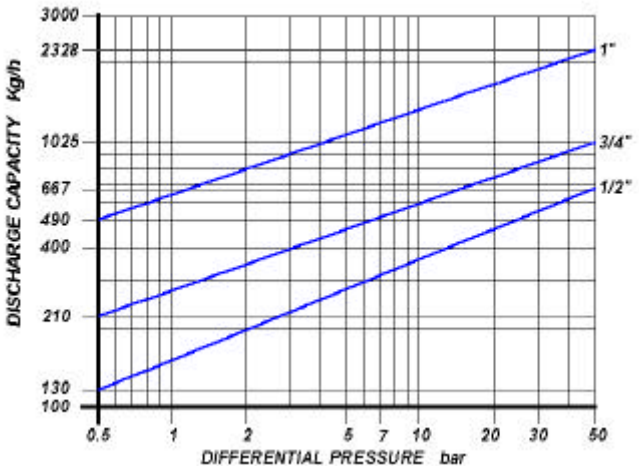
MAIN FEATURES

Reduced dimension and wheigt simple and reliable. ***Special air venting disc.*** *It withstands waterhammer. Condensate discharge is intermittent. Some loss of live steam.*

APPLICATIONS

- *Ironing machines*
- *Steam mains*
- *Tracing lines*
- *Turbines*
- *Marine applications*
- *Presses*

DISCHARGE CAPACITY



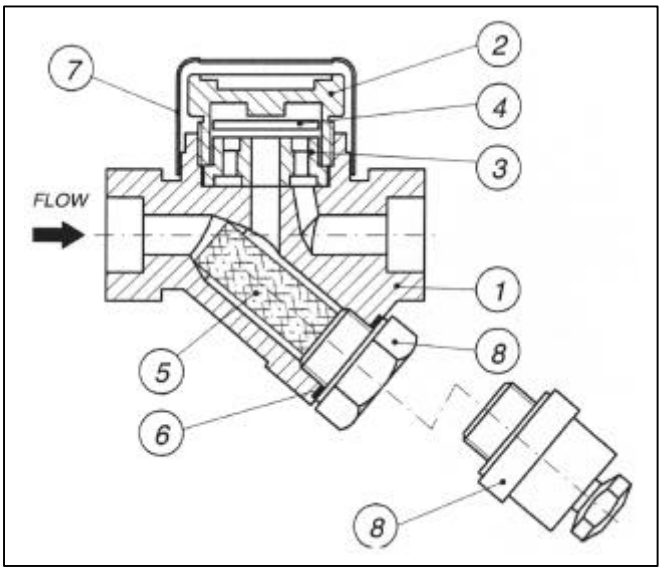
Cold water capacities are 2 to 4 times greater than the above .
Safety factor = 1.2 – 1.5

SIZES
½" – ¾" – 1"

CONNECTIONS	
Screwed	ANSI B1.20.1 (NPT) / BS21 (BSP)
Socket Welding	ANSI B16.11
Flanged	ANSI 150#/300#/600#/UNI/DIN

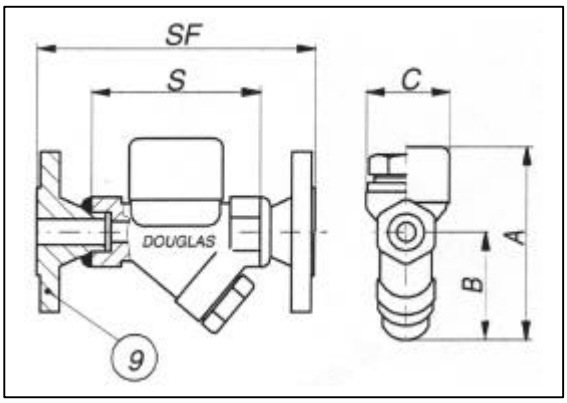
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 600
PMA: Max allowable pressure	100 bar
TMA: max allowable temperature	390°C
PMO: max working pressure	50 bar
TMO: max working temperature	350°C
Minimum Working Pressure	0.25 bar
PMOB: max working back pressure	80%

THERMODYNAMIC STEAM TRAPS
DC 50/A A 105



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A 105	
2	Cover	AISI 303	
3	Seat	AISI 431	X
4	Disc	AISI 431	X
5	Screen	AISI 304	X
6	Gasket	316/GRAPHITE	X
7	Insulating cap*	AISI 304	
8	Strainer cap	ASTM A105	
8	Blow off valve*	AISI 416	
9	Flange	ASTM A 105	
*** optional**			

						Flanged							
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	85	108	55	48	0.8	151	2.4	145	2.2	165	2.4	175	2.5
¾"	100	120	60	54	1.3	170	3.6	170	3	190	4.1	200	4.5
1"	108	130	70	62	3.4	178	5.2	188	4.6	198	5.8	218	6.2



INSTALLATION

The steam trap can be installed in any position, however it should be preferably fitted on horizontal pipelines.

HOW TO SERVICE

By installing a new seat-disc assembly you can bring the steam trap to the "as new from factory" condition. This operation is carried out in a few minutes without removing steam trap from the pipeline. Remove insulating cap if fitted and unscrew cover(2) and remove disc(4), seat(3) and clean the inside of the trap. When re-assembling the disc is normally placed in position with the grooved side in contact with the seat. Screw on cover(2) using a high temperature grease. To service the strainer cap(8), withdraw screen(5) and clean or replace it. When servicing the trap always fit the new gasket.

How to order: i.e. *DC 50 /A A 105 ½" 150 RF*

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DOUGLAS ITALIA S.P.A.

THERMODYNAMIC STEAM TRAPS
DC 50 F 304

THERMODYNAMIC

This type of trap uses steam dynamic energy to close the discharge orifice. A disc closes both the inlet and outlet orifice. Condensate can lift the disc and be discharge , but when steam is formed its dynamic energy will create a low pressure area (Bernulli Law) under the disc which draws it towards the seat.

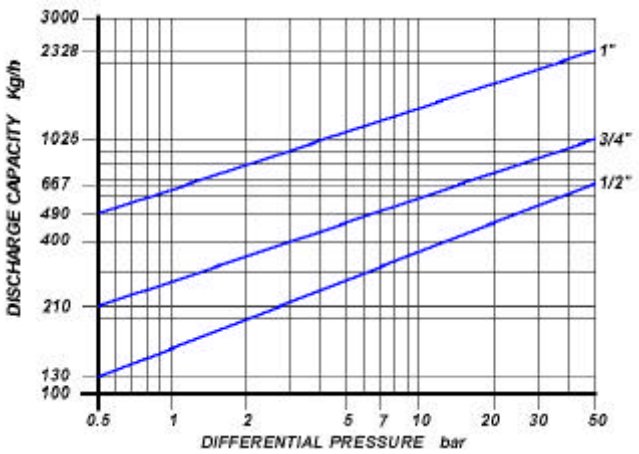
MAIN FEATURES

Reduced dimension and wheigt simple and reliable. It discharges air. It withstands waterhammer. Condensate discharge is intermittent. Some loss of live steam.

APPLICATIONS

- *Ironing machines*
- *Steam mains*
- *Tracing lines*
- *Turbines*
- *Marine applications*
- *Presses*

DISCHARGE CAPACITY



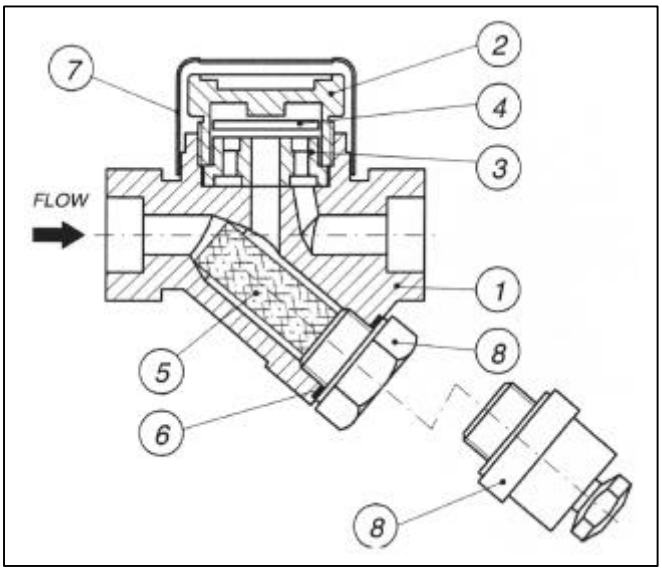
Cold water capacities are 2 to 4 times greater than the above .
Safety factor = 1.2 – 1.5

SIZES
½" – ¾" – 1"

CONNECTIONS	
Screwed	ANSI B1.20.1 (NPT) / BS21 (BSP)
Socket Welding	ANSI B16.11
Flanged	ANSI 150#/300#/600#/UNI/DIN

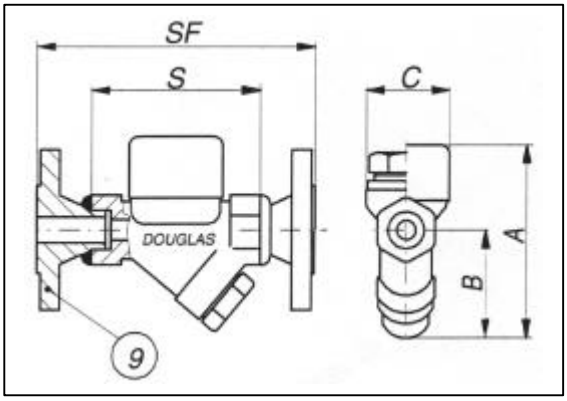
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 600
PMA: Max allowable pressure	100 bar
TMA: max allowable temperature	500°C
PMO: max working pressure	50 bar
TMO: max working temperature	425°C
Minimum Working Pressure	0.25 bar
PMOB: max working back pressure	80%

THERMODYNAMIC STEAM TRAPS
DC 50 F 304



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A182 F304	
2	Cover	AISI 303	
3	Seat	AISI 431	X
4	Disc	AISI 431	X
5	Screen	AISI 304	X
6	Gasket	316/GRAPHITE	X
7	Insulating cap*	AISI 304	
8	Strainer cap	ASTM A182 F304	
8	Blow off valve*	AISI 416	
9	Flange	ASTM A182 F304	
*** optional**			

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	85	108	55	48	0.8	151	2.4	145	2.2	165	2.4	175	2.5
¾"	100	120	60	54	1.3	170	3.6	170	3	190	4.1	200	4.5
1"	108	130	70	62	3.4	178	5.2	188	4.6	198	5.8	218	6.2



INSTALLATION

The steam trap can be installed in any position, however it should be preferably fitted on horizontal pipelines.

HOW TO SERVICE

By installing a new seat-disc assembly you can bring the steam trap to the "as new from factory" condition. This operation is carried out in a few minutes without removing steam trap from the pipeline. Unscrew cover (2) and remove disc(4), seat(3) and clean the inside of the trap. Put in new parts. Scew on cover(2) using a high temperature grease. To service the strainer unscrew cap(8), withdraw screen(5) and clean or replace it. Screwing cover back in place always fit a new gasket(6).

How to order: i.e. *DC 50 F304 ¾" NPT*

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DOUGLAS ITALIA S.P.A.

THERMODYNAMIC STEAM TRAPS

DC50 F304 ø 1.1/2”

THERMODYNAMIC

This type of trap uses steam dynamic energy to close the discharge orifice. A disc closes both the inlet and outlet orifice. Condensate can lift the disc and be discharge , but when steam is formed its dynamic energy will create a low pressure area (Bernulli Law) under the disc which draws it towards the seat.

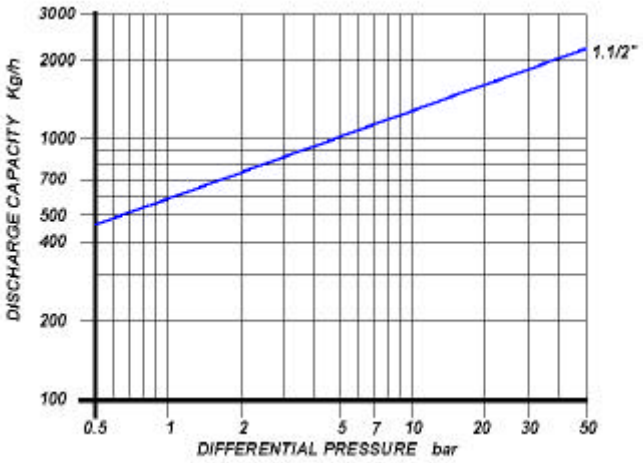
MAIN FEATURES

Reduced dimension and wheigt simple and reliable. It discharges air. It withstands waterhammer. Condensate discharge is intermittent. Some loss of live steam.

APPLICATIONS

- *Ironing machines*
- *Steam mains*
- *Tracing lines*
- *Turbines*
- *Marine applications*
- *Presses*

DISCHARGE CAPACITY



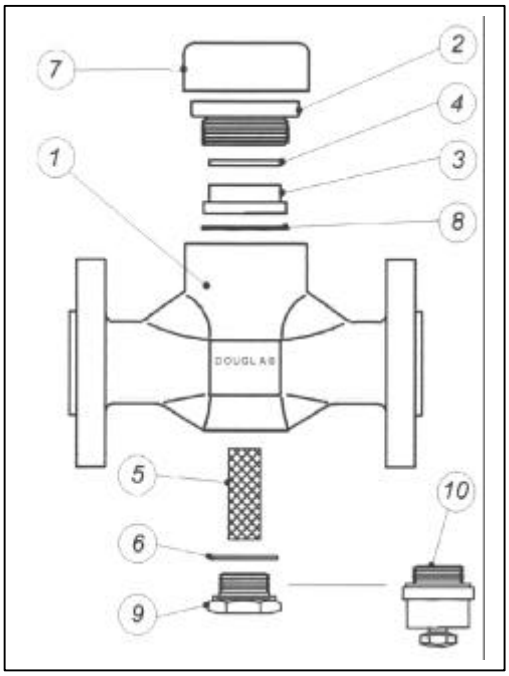
Cold water capacities are 2 to 4 times greater than the above .
Safety factor = 1.2 – 1.5

SIZES
1½”

CONNECTIONS	
Screwed	ANSI B1.20.1 (NPT) / BS21 (BSP)
Socket Welding	ANSI B16.11
Flanged	ANSI 150#/300#/600#/UNI/DIN

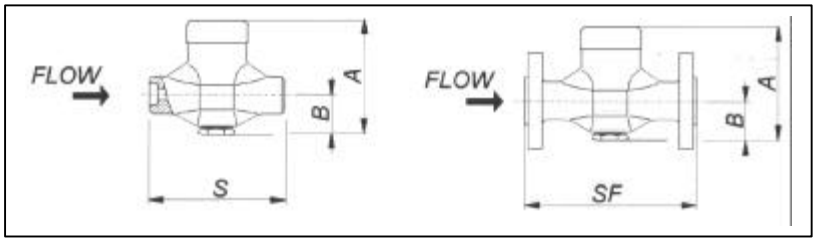
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 600
PMA: Max allowable pressure	100 bar
TMA: max allowable temperature	500°C
PMO: max working pressure	50 bar
TMO: max working temperature	425°C
Minimum Working Pressure	0.25 bar
PMOB: max working back pressure	80%

THERMODYNAMIC STEAM TRAPS
DC 50 F 304 ø 1.1/2”



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	A 105	
2	Cover	AISI 303	
3	Seat	AISI 431 HT	X
4	Disc	AISI 431 HT	X
5	Screen	AISI 304	X
6	Gasket	316 / GRAPHITE	X
7	Insulating cap *	AISI 304	X
8	Gasket	Reinforced graphite	X
9	Strainer cap	AISI 105	X
10	Blow – off valve *	AISI 416	X
*** optional**			

					Flanged							
Size (inches)	S	A	B	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
					SF	Kg	SF	Kg	SF	Kg	SF	Kg
1½”	125	130	50	3.5	205	6	215	6.5	225	9.5	245	10.5



INSTALLATION

The steam trap can be installed in any position, however it should be preferably fitted on horizontal pipelines.

HOW TO SERVICE

By installing a new seat-disc assembly you can bring the steam trap to the “as new from factory” condition. This operation is carried out in a few minutes without removing steam trap from the pipeline. Unscrew cover (2) and remove disc (4), seat (3) and gasket (4)and clean the inside of the trap. Put in new part aligning the gasket hole with the hole inthe trap body. Screw on cover (2) using a high temperature grease. To service the strainer unsrew plug (9), withdraw screen (5) and clean or replace it. Screwing cover back in place always fit a new gasket (6).

How to order: i.e. *DC 50 F 304 1½” NPT*

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DOUGLAS ITALIA S.P.A.

THERMODYNAMIC STEAM TRAPS

DC50 F304 ø 2”

THERMODYNAMIC

This type of trap uses steam dynamic energy to close the discharge orifice. A disc closes both the inlet and outlet orifice. Condensate can lift the disc and be discharge , but when steam is formed its dynamic energy will create a low pressure area (Bernulli Law) under the disc which draws it towards the seat.

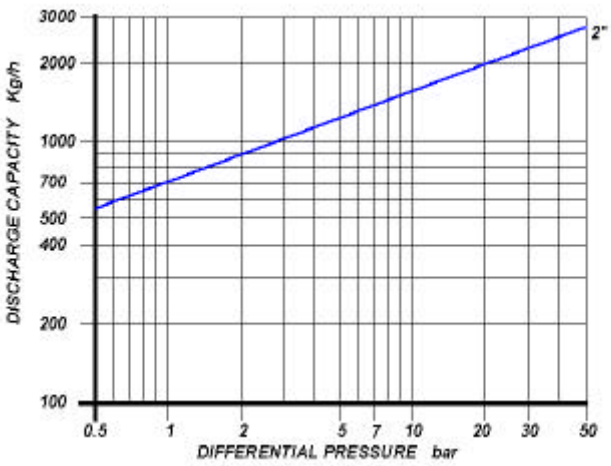
MAIN FEATURES

Reduced dimension and wheigt simple and reliable. It discharges air. It withstands waterhammer. Condensate discharge is intermittent. Some loss of live steam.

APPLICATIONS

- *Ironing machines*
- *Steam mains*
- *Tracing lines*
- *Turbines*
- *Marine applications*
- *Presses*

DISCHARGE CAPACITY



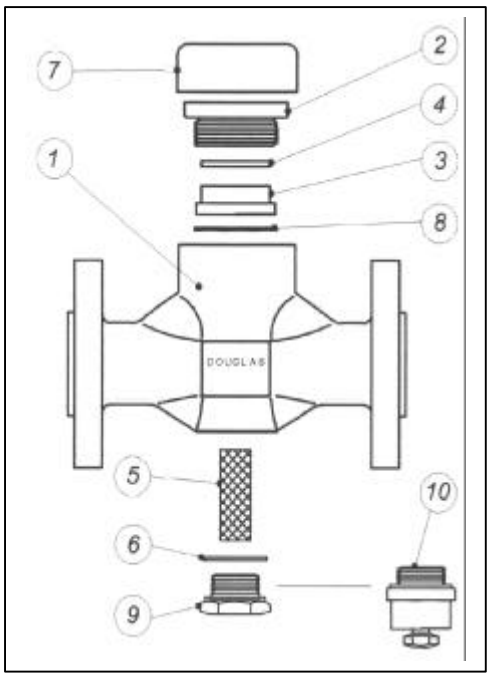
Cold water capacities are 2 to 4 times greater than the above . Safety factor = 1.2 – 1.5

SIZES
2”

CONNECTIONS	
Screwed	*ANSI B1.20.1 (NPT) / BS21 (BSP)*
Socket Welding	*ANSI B16.11*
Flanged	*ANSI 150#/300#/600#/UNI/DIN*

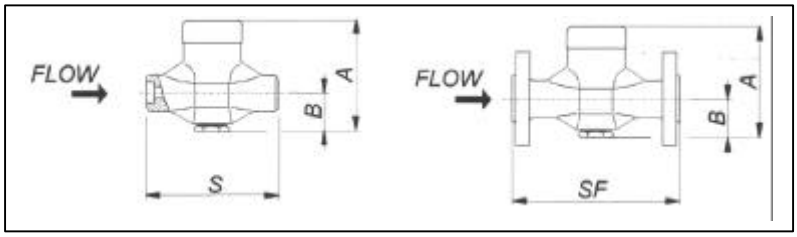
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	*ANSI 600*
PMA: Max allowable pressure	*100 bar*
TMA: max allowable temperature	*500°C*
PMO: max working pressure	*50 bar*
TMO: max working temperature	*425°C*
Minimum Working Pressure	*0.25 bar*
PMOB: max working back pressure	*80%*

THERMODYNAMIC STEAM TRAPS
DC 50 F 304 ø 2”



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	A 105	
2	Cover	AISI 303	
3	Seat	AISI 431 HT	X
4	Disc	AISI 431 HT	X
5	Screen	AISI 304	X
6	Gasket	316 / GRAPHITE	X
7	Insulating cap *	AISI 304	X
8	Gasket	Reinforced graphite	X
9	Strainer cap	AISI 105	X
10	Blow – off valve *	AISI 416	X
*** optional**			

					Flanged							
Size (inches)	S	A	B	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
					SF	Kg	SF	Kg	SF	Kg	SF	Kg
2”	130	130	50	4.3	225	6.4	256	8	269	10	288	11.2



INSTALLATION

The steam trap can be installed in any position, however it should be preferably fitted on horizontal pipelines.

HOW TO SERVICE

By installing a new seat-disc assembly you can bring the steam trap to the “as new from factory” condition. This operation is carried out in a few minutes without removing steam trap from the pipeline. Unscrew cover (2) and remove disc (4), seat (3) and gasket (4)and clean the inside of the trap. Put in new part aligning the gasket hole with the hole inthe trap body. Screw on cover (2) using a high temperature grease. To service the strainer unsrew plug (9), withdraw screen (5) and clean or replace it. Screwing cover back in place always fit a new gasket (6).

How to order: i.e. *DC 50 F 304 2” NPT*

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DOUGLAS ITALIA S.P.A.

THERMODYNAMIC STEAM TRAPS
LOW CAPACITIES
DC 50L F 304

THERMODYNAMIC

This type of trap uses steam dynamic energy to close the discharge orifice. A disc closes both the inlet and outlet orifice. Condensate can lift the disc and be discharge , but when steam is formed its dynamic energy will create a low pressure area (Bernulli Law) under the disc which draws it towards the seat.

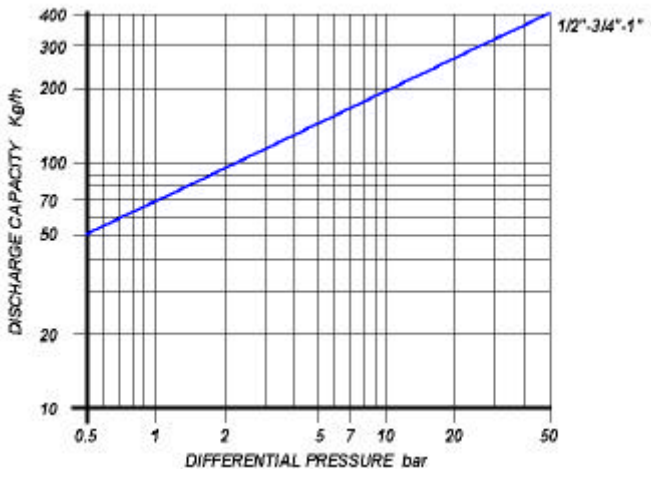
MAIN FEATURES

Reduced dimension and wheigt simple and reliable. It discharges air. It withstands waterhammer. Condensate discharge is intermittent. Some loss of live steam.

APPLICATIONS

- *Ironing machines*
- *Steam mains*
- *Tracing lines*
- *Turbines*
- *Marine applications*
- *Presses*

DISCHARGE CAPACITY



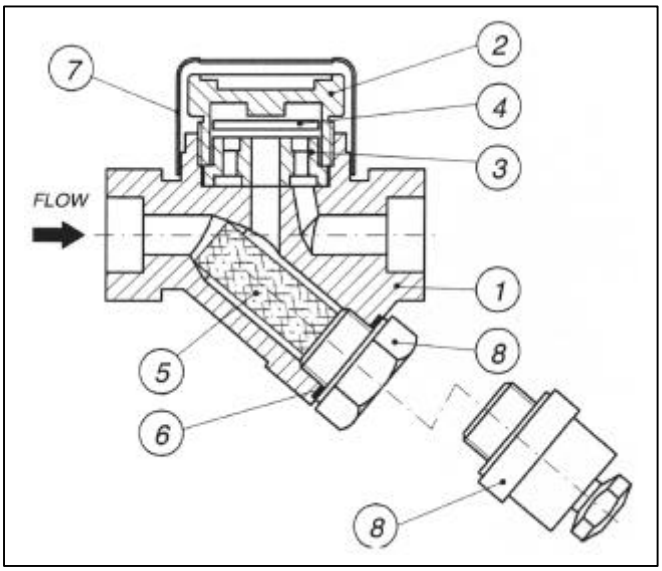
Cold water capacities are 2 to 4 times greater than the above .
Safety factor = 1.2 – 1.5

SIZES
½" – ¾" – 1"

CONNECTIONS	
Screwed	ANSI B1.20.1 (NPT) / BS21 (BSP)
Socket Welding	ANSI B16.11
Flanged	ANSI 150#/300#/600#/UNI/DIN

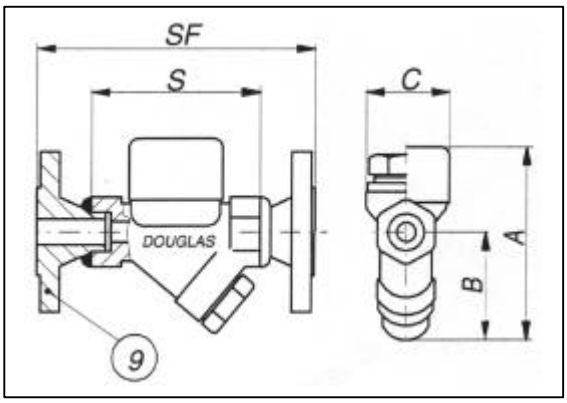
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 600
PMA: Max allowable pressure	100 bar
TMA: max allowable temperature	500°C
PMO: max working pressure	50 bar
TMO: max working temperature	425°C
Minimum Working Pressure	0.25 bar
PMOB: max working back pressure	80%

THERMODYNAMIC STEAM TRAPS LOW CAPACITIES
DC 50L F 304



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A182 F304	
2	Cover	AISI 303	
3	Seat	AISI 431	X
4	Disc	AISI 431	X
5	Screen	AISI 304	X
6	Gasket	316/GRAPHITE	X
7	Insulating cap*	AISI 304	
8	Strainer cap	ASTM A182 F304	
8	Blow off valve*	AISI 416	
9	Flange	ASTM A182 F304	
*** optional**			

						Flanged							
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	85	108	55	48	0.8	151	2.4	145	2.2	165	2.4	175	2.5
¾"	100	120	60	54	1.3	170	3.6	170	3	190	4.1	200	4.5
1"	108	130	70	62	3.4	178	5.2	188	4.6	198	5.8	218	6.2



INSTALLATION
The steam trap can be installed in any position, however it should be preferably fitted on horizontal pipelines.

HOW TO SERVICE
By installing a new seat-disc assembly you can bring the steam trap to the "as new from factory" condition. This operation is carried out in a few minutes without removing steam trap from the pipeline. Unscrew cover (2) and remove disc(4), seat(3) and clean the inside of the trap. Put in new parts. Scew on cover(2) using a high temperature grease. To service the strainer unscrew cap(8), withdraw screen(5) and clean or replace it. Screwing cover back in place always fit a new gasket(6).

How to order: i.e. *DC 50L F304 ¾" NPT*

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DOUGLAS ITALIA S.P.A.

THERMODYNAMIC STEAM TRAPS

DC 50/A F 304

THERMODYNAMIC

This type of trap uses steam dynamic energy to close the discharge orifice. A disc closes both the inlet and outlet orifice. Condensate can lift the disc and be discharge , but when steam is formed its dynamic energy will create a low pressure area (Bernulli Law) under the disc which draws it towards the seat.

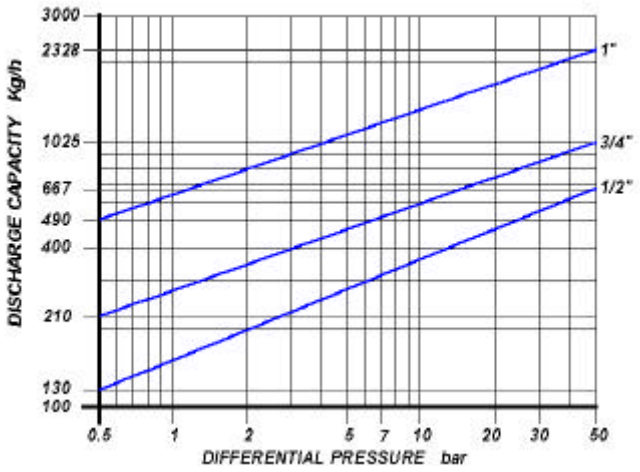
MAIN FEATURES

Reduced dimension and wheigt simple and reliable. ***Special air venting disc.*** *It withstands waterhammer. Condensate discharge is intermittent. Some loss of live steam.*

APPLICATIONS

- *Ironing machines*
- *Steam mains*
- *Tracing lines*
- *Turbines*
- *Marine applications*
- *Presses*

DISCHARGE CAPACITY



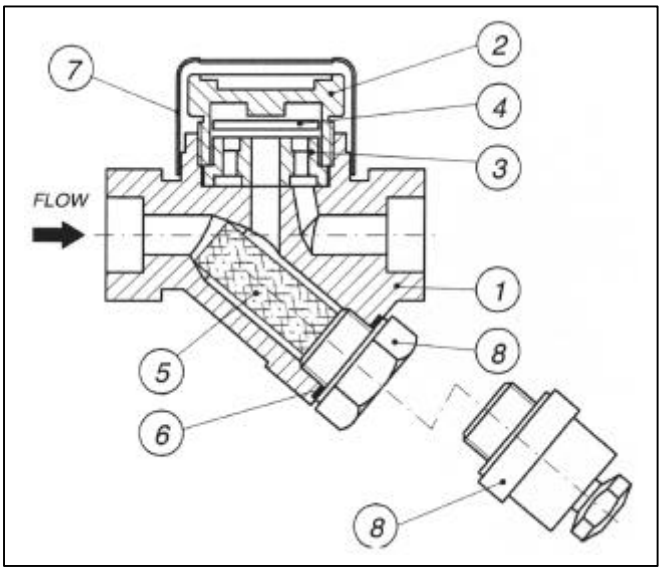
Cold water capacities are 2 to 4 times greater than the above . Safety factor = 1.2 – 1.5

SIZES
½" – ¾" – 1"

CONNECTIONS	
Screwed	ANSI B1.20.1 (NPT) / BS21 (BSP)
Socket Welding	ANSI B16.11
Flanged	ANSI 150#/300#/600#/UNI/DIN

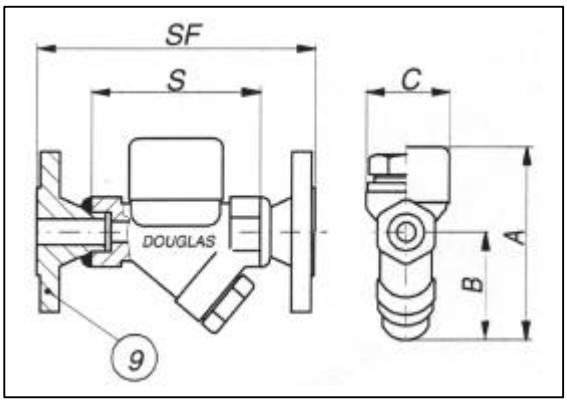
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 600
PMA: Max allowable pressure	100 bar
TMA: max allowable temperature	500°C
PMO: max working pressure	50 bar
TMO: max working temperature	425°C
Minimum Working Pressure	0.25 bar
PMOB: max working back pressure	80%

THERMODYNAMIC STEAM TRAPS
DC 50/A F 304



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A182 F304	
2	Cover	AISI 303	
3	Seat	AISI 431	X
4	Disc	AISI 431	X
5	Screen	AISI 304	X
6	Gasket	316/GRAPHITE	X
7	Insulating cap*	AISI 304	
8	Strainer cap	ASTM A182 F304	
8	Blow off valve*	AISI 416	
9	Flange	ASTM A182 F304	
*** optional**			

						Flanged							
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	85	108	55	48	0.8	151	2.4	145	2.2	165	2.4	175	2.5
¾"	100	120	60	54	1.3	170	3.6	170	3	190	4.1	200	4.5
1"	108	130	70	62	3.4	178	5.2	188	4.6	198	5.8	218	6.2



INSTALLATION

The steam trap can be installed in any position, however it should be preferably fitted on horizontal pipelines.

HOW TO SERVICE

By installing a new seat-disc assembly you can bring the steam trap to the "as new from factory" condition. This operation is carried out in a few minutes without removing steam trap from the pipeline. Remove insulating cap if fitted and unscrew cover(2) and remove disc(4), seat(3) and clean the inside of the trap. When re-assembling the disc is normally placed in position with the grooved side in contact with the seat. Screw on cover(2) using a high temperature grease. To service the strainer cap(8), withdraw screen(5) and clean or replace it. When servicing the trap always fit the new gasket.

How to order: i.e. *DC 50 /A F304 ¾" NPT*

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

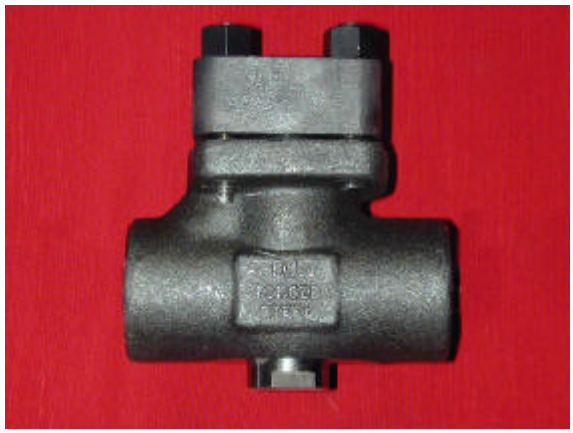
OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

THERMODYNAMIC STEAM TRAPS
DK 100 A105

THERMODYNAMIC

This type of trap uses steam dynamic energy to close the discharge orifice. A disc closes both the inlet and outlet orifice. Condensate can lift the disc and be discharge , but when steam is formed its dynamic energy will create a low pressure area (Bernulli Law) under the disc which draws it towards the seat.



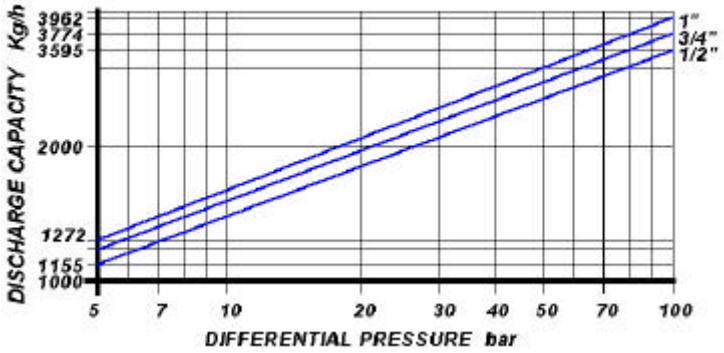
MAIN FEATURES

Reduced dimension and wheigt simple and reliable. It discharges air. It withstands waterhammer. Condensate discharge is intermittent. Some loss of live steam.

APPLICATIONS

- *Ironing machines*
- *Steam mains*
- *Tracing lines*
- *Turbines*
- *Marine applications*
- *Presses*

DISCHARGE CAPACITY



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

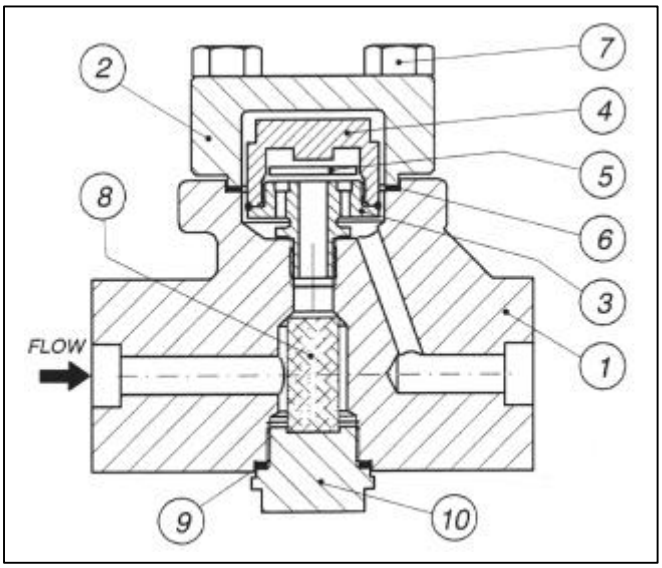
SIZES
½" – ¾" - 1

CONNECTIONS	
SCREWED	*ANSI B 1.20.1 (NPT)*
BUTTWELD	*ANSI B 16.25*
SOCKET WELD	*ANSI B 16.11*
FLANGED	*ANSI 600#/1500#/UNI/DIN*

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	*1500*
PMA: Max allowable pressure	*230 bar*
TMA: max allowable temperature	*400°C*
PMO: max working pressure	*100 bar*
TMO: max working temperature	*400°C*
Minimum Working Pressure	*5 bar*
PMOB: max working back pressure	*80%*

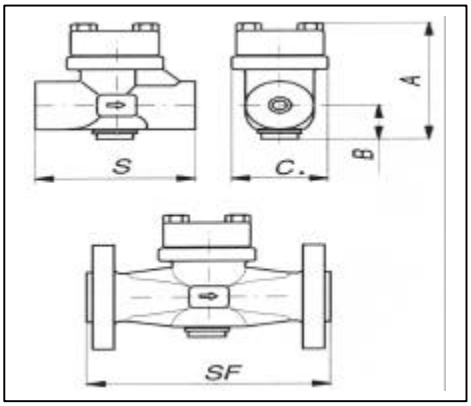
THERMODYNAMIC STEAM TRAPS

DK 100 A105



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A 105	
2	Cover	ASTM A105	
3	Seat	AISI 421	X
4	Cover seat	AISI 431	X
5	Disc	AIS 431	X
6	Gasket	316 / GRAPHITE	X
7	Bolts	ASTM A194 B7	
8	Screen	AISI 304	X
9	Gasket	316 / GRAPHITE	X
10	Strainer cap	ASTM A105	

						Flanged					
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN 40 - 100		600#		1500#	
						SF	Kg	SF	Kg	SF	Kg
½"	155	150	48	94	7	242	9	242	8.5	242	11.3
¾"	155	150	48	94	7	242	11	242	9.2	242	12.5
1"	155	150	48	94	7	242	12.2	242	11.2	242	15



INSTALLATION

The steam trap can be installed in any position, however it should be preferably fitted on horizontal pipelines.

HOW TO SERVICE

By installing a new seat-disc assembly you can bring the steam trap to the "as new from factory" condition. This operation is carried out in a few minutes without removing steam trap from the pipeline. Remove cover(2),unscrew seat-disc assembly and clean the inside of the body. Screw in the new assembly (3-4-5),replace body,cover,gasket (6) and reassemble cover. To service the strainer unscrew the relevant cap (10) and clean or replace the screen. Screwing the cap back always fit a new gasket (9).

How to order: i.e. *DK 100 1" SW A105*

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

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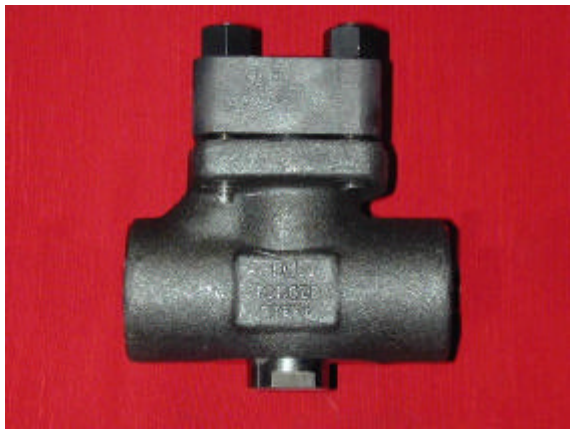
DOUGLAS ITALIA S.P.A.

THERMODYNAMIC STEAM TRAPS
DK 100 F22

THERMODYNAMIC

This type of trap uses steam dynamic energy to close the discharge orifice. A disc closes both the inlet and outlet orifice. Condensate can lift the disc and be discharge , but when steam is formed its dynamic energy will create a low pressure area (Bernulli Law) under the disc which draws it towards the seat.



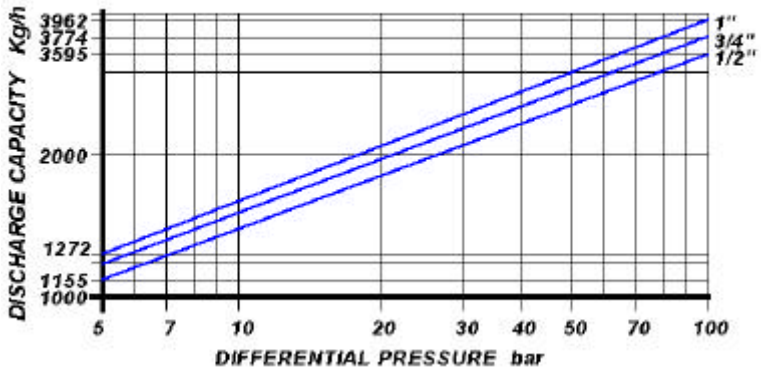
MAIN FEATURES

Reduced dimension and wheigt simple and reliable. It discharges air. It withstands waterhammer. Condensate discharge is intermittent. Some loss of live steam.

APPLICATIONS

- *Ironing machines*
- *Steam mains*
- *Tracing lines*
- *Turbines*
- *Marine applications*
- *Presses*

DISCHARGE CAPACITY



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

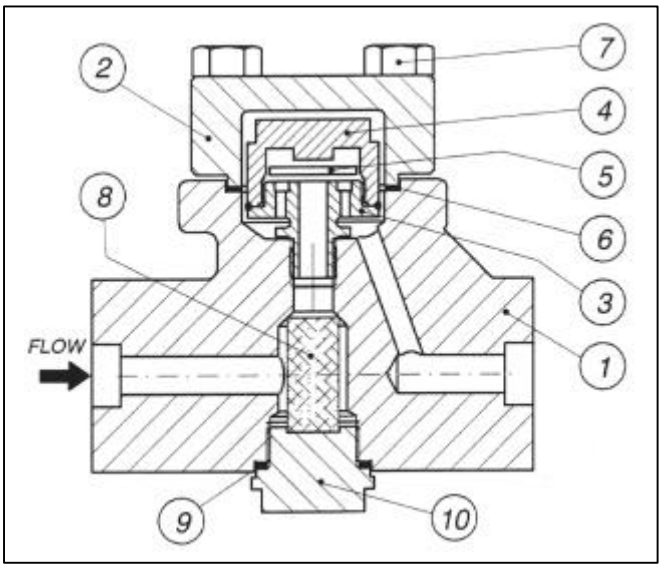
SIZES
½" – ¾" - 1

CONNECTIONS	
SCREWED	*ANSI B 1.20.1 (NPT)*
BUTTWELD	*ANSI B 16.25*
SOCKET WELD	*ANSI B 16.11*
FLANGED	*ANSI 600#/1500#/UNI/DIN*

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	*1500*
PMA: Max allowable pressure	*260 bar*
TMA: max allowable temperature	*510°C*
PMO: max working pressure	*100 bar*
TMO: max working temperature	*495°C*
Minimum Working Pressure	*5 bar*
PMOB: max working back pressure	*80%*

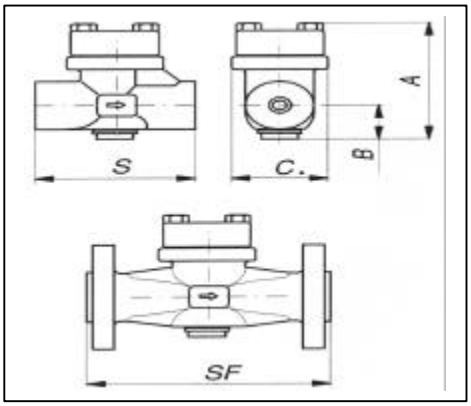
THERMODYNAMIC STEAM TRAPS

DK 100 F22



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A182 F22	
2	Cover	ASTM A182 F22	
3	Seat	AISI 421	X
4	Cover seat	AISI 431	X
5	Disc	AIS 431	X
6	Gasket	316 / GRAPHITE	X
7	Bolts	ASTM A193 B8	
8	Screen	AISI 304	X
9	Gasket	316 / GRAPHITE	X
10	Strainer cap	ASTM A182 F22	

Flanged											
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN 40 - 100		600#		1500#	
						SF	Kg	SF	Kg	SF	Kg
½"	155	150	48	94	7	242	9	242	8.5	242	11.3
¾"	155	150	48	94	7	242	11	242	9.2	242	12.5
1"	155	150	48	94	7	242	12.2	242	11.2	242	15



INSTALLATION

The steam trap can be installed in any position, however it should be preferably fitted on horizontal pipelines.

HOW TO SERVICE

By installing a new seat-disc assembly you can bring the steam trap to the "as new from factory" condition. This operation is carried out in a few minutes without removing steam trap from the pipeline. Remove cover(2),unscrew seat-disc assembly and clean the inside of the body. Screw in the new assembly (3-4-5),replace body,cover,gasket (6) and reassemble cover. To service the strainer unscrew the relevant cap (10) and clean or replace the screen. Screwing the cap back always fit a new gasket (9).

How to order: i.e. *DK 100 1" SW F22*

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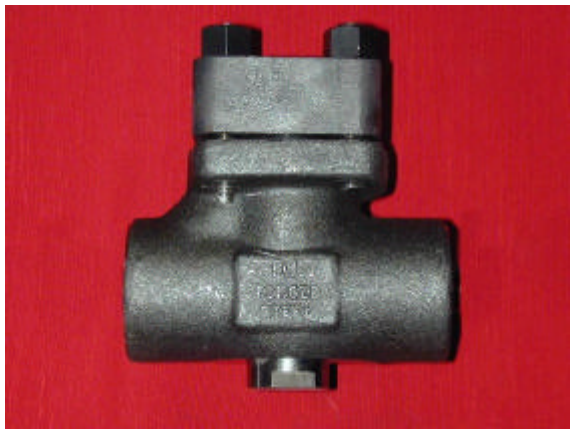
DOUGLAS ITALIA S.P.A.

THERMODYNAMIC STEAM TRAPS
DK 150 F 22

THERMODYNAMIC

This type of trap uses steam dynamic energy to close the discharge orifice. A disc closes both the inlet and outlet orifice. Condensate can lift the disc and be discharge , but when steam is formed its dynamic energy will create a low pressure area (Bernulli Law) under the disc which draws it towards the seat.



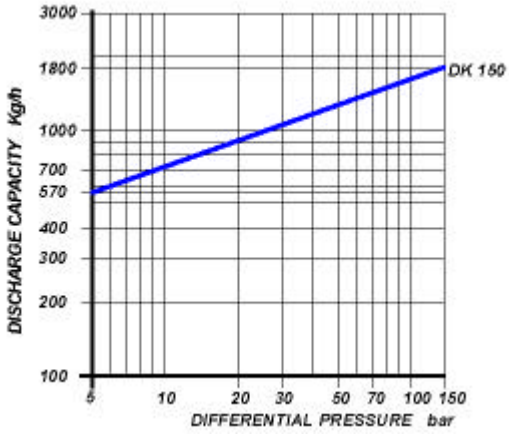
MAIN FEATURES

Reduced dimension and wheigt simple and reliable. It discharges air. It withstands waterhammer. Condensate discharge is intermittent. Some loss of live steam.

APPLICATIONS

- *Steam mains*
- *Tracing lines*
- *Turbines*
- *Marine applications*
- *Presses*

DISCHARGE CAPACITY



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

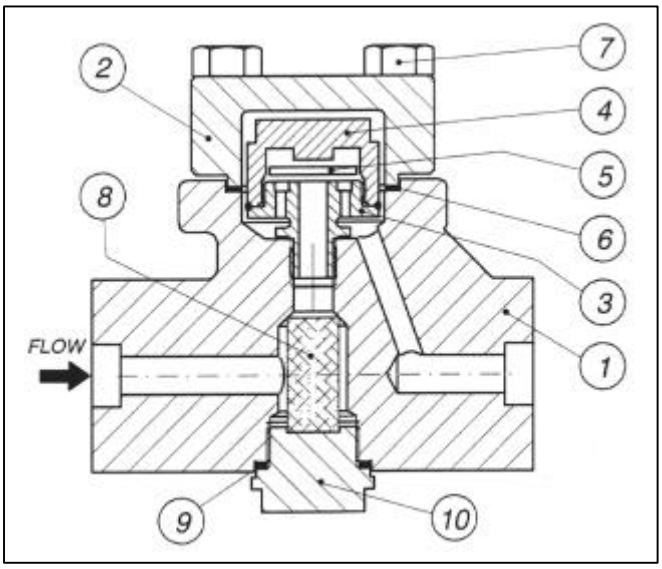
SIZES
½" – ¾" – 1" – 1½"

CONNECTIONS	
BUTTWELD	ANSI B 16.25
SOCKET WELD	ANSI B 16.11
FLANGED (on request)	ANSI B 16.5 (1500)

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	2500
PMA: Max allowable pressure	430 bar
TMA: max allowable temperature	580°C
PMO: max working pressure	150 bar
TMO: max working temperature	550°C
Minimum Working Pressure	5 bar
PMOB: max working back pressure	80%

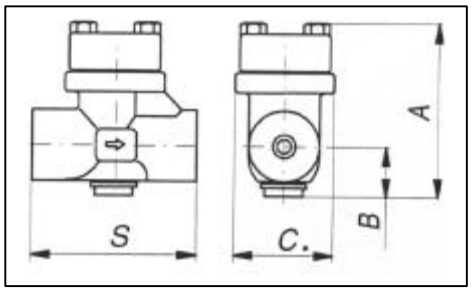
THERMODYNAMIC STEAM TRAPS

DK 150 F 22



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A182 F22	
2	Cover	ASTM A182 F22	
3	Seat	AISI 431	X
4	Cover seat	AISI 431	X
5	Disc	AIS 431	X
6	Gasket	316 / GRAPHITE	X
7	Bolts	ASTM A193 B8	
8	Screen	AISI 304	X
9	Gasket	316 / GRAPHITE	X
10	Strainer cap	ASTM A182 F22	

Size (inches)	S	A	B	C	Weight (Kg)
½"	170	215	72	106	9.5
¾"	170	215	72	106	9.5
1	170	215	72	106	9.5
1½"	170	215	72	106	9.5



INSTALLATION

The steam trap can be installed in any position, however it should be preferably fitted on horizontal pipelines.

HOW TO SERVICE

By installing a new seat-disc assembly you can bring the steam trap to the "as new from factory" condition. This operation is carried out in a few minutes without removing steam trap from the pipeline. Remove cover(2),unscrew seat-disc assembly and clean the inside of the body. Screw in the new assembly (3-4-5),replace body,cover,gasket (6) and reassemble cover. To service the strainer unscrew the relevant cap (10) and clean or replace the screen. Screwing the cap back always fit a new gasket (9).

How to order: i.e. *DK 150 F 22 1" SW*

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

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DOUGLAS ITALIA S.P.A.

THERMODYNAMIC STEAM TRAPS
DK 150 F304

THERMODYNAMIC

This type of trap uses steam dynamic energy to close the discharge orifice. A disc closes both the inlet and outlet orifice. Condensate can lift the disc and be discharge , but when steam is formed its dynamic energy will create a low pressure area (Bernulli Law) under the disc which draws it towards the seat.

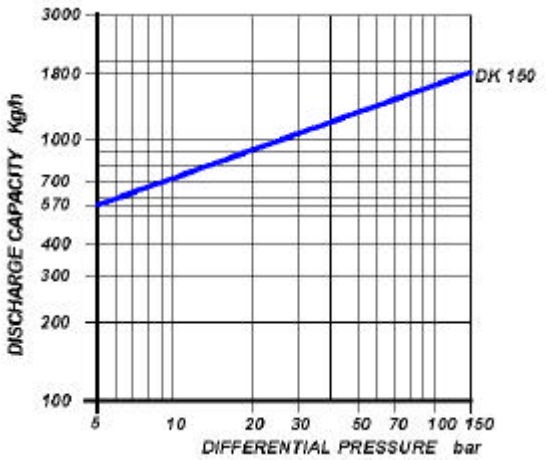
MAIN FEATURES

Reduced dimension and wheigt simple and reliable. It discharges air. It withstands waterhammer. Condensate discharge is intermittent. Some loss of live steam.

APPLICATIONS

- *Steam mains*
- *Tracing lines*
- *Turbines*
- *Marine applications*
- *Presses*

DISCHARGE CAPACITY



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

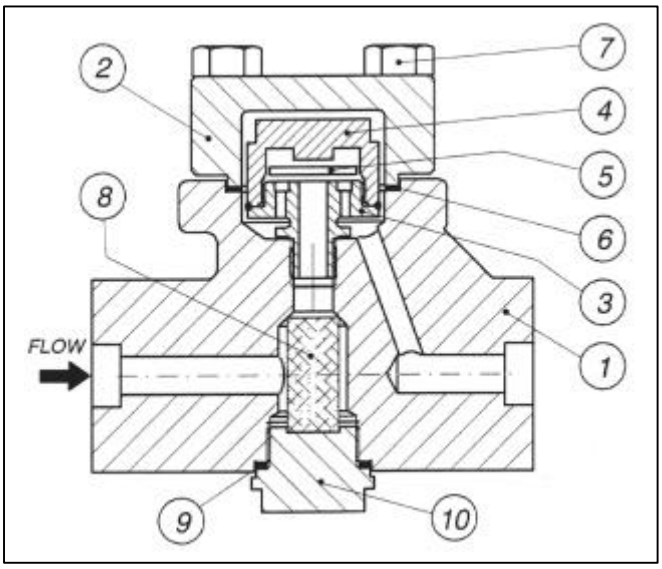
SIZES
½" – ¾" – 1"

CONNECTIONS	
BUTTWELD	ANSI B 16.25
SOCKET WELD	ANSI B 16.11
FLANGED (on request)	ANSI B 16.5 (1500)

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	2500
PMA: Max allowable pressure	410 bar
TMA: max allowable temperature	580°C
PMO: max working pressure	150 bar
TMO: max working temperature	550°C
Minimum Working Pressure	5 bar
PMOB: max working back pressure	80%

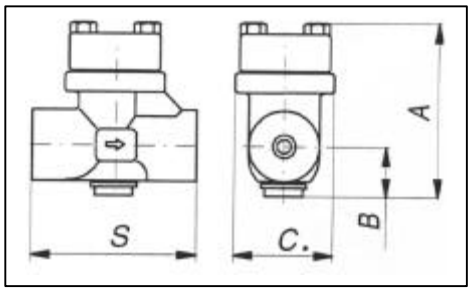
THERMODYNAMIC STEAM TRAPS

DK 150 F304



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A182 F304	
2	Cover	ASTM A182 F304	
3	Seat	AISI 431	X
4	Cover seat	AISI 431	X
5	Disc	AIS 431	X
6	Gasket	S.S 304	X
7	Bolts	ASTM A193 B8	
8	Screen	AISI 304	X
9	Gasket	S.S 304	X
10	Strainer cap	ASTM A182 F304	

						Flanged	
Size (inches)	S	A	B	C	Weight (Kg)	1500#	
						SF	Kg
½"	170	215	72	106	9.5	290	10
¾"	170	215	72	106	9.5	290	10
1"	170	215	72	106	9.5	297	11



INSTALLATION

The steam trap can be installed in any position, however it should be preferably fitted on horizontal pipelines.

HOW TO SERVICE

By installing a new seat-disc assembly you can bring the steam trap to the "as new from factory" condition. This operation is carried out in a few minutes without removing steam trap from the pipeline. Remove cover(2),unscrew seat-disc assembly and clean the inside of the body. Screw in the new assembly (3-4-5),replace body,cover,gasket (6) and reassemble cover. To service the strainer unscrew the relevant cap (10) and clean or replace the screen. Screwing the cap back always fit a new gasket (9).

How to order: i.e. *DK 150 F 304 1" SW*

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

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DOUGLAS ITALIA

BIMETALLIC THERMOSTATIC STEAM TRAPS

- BV A105
- BV F304
- BF
- BX 13 F316
- BB
- BC 8
- BC 20
- BC 30
- BC 40
- BD A105
- BD F11
- BD 60S F22
- BD 60 S1
- BD 80S F11
- BD 80S F22
- BX 80 F22
- BD 100 F22
- BD 120 A105
- BD 120 F22
- BC 20 S1
- BCS 8 F316
- BCS 20 F316
- BCS 30 F316
- BCS 40 F316
- BE 8
- BE 20
- BE 30
- BE 40
- MP
- MF 8

GO BACK

DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BV A 105

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

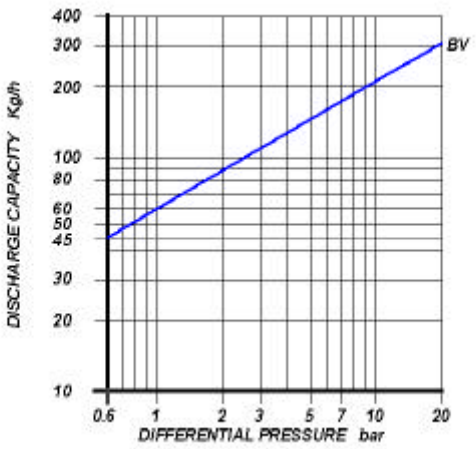
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

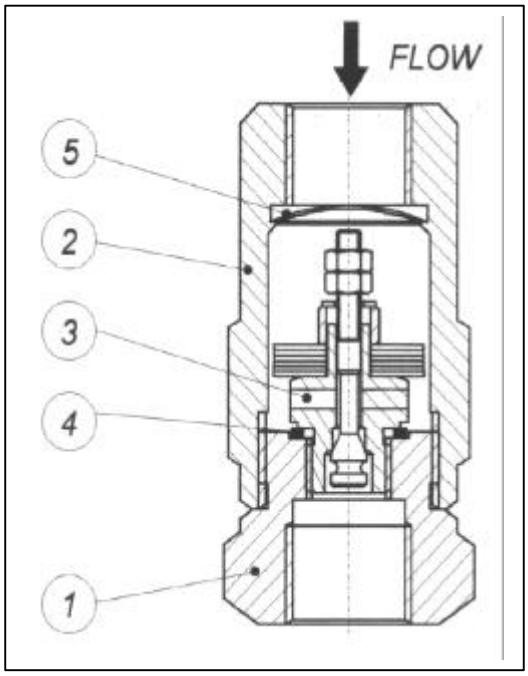
SIZES
½" – ¾"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 300
PMA: Max allowable pressure	50 bar
TMA: max allowable temperature	390°C
PMO: max working pressure	20 bar
TMO: max working temperature	250°C

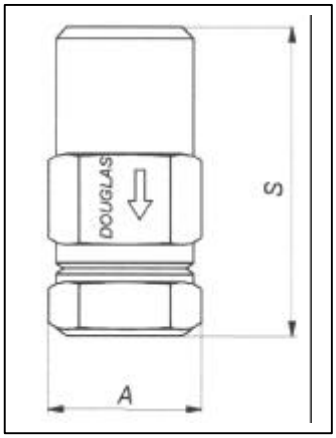
BIMETALLIC THERMOSTATIC STEAM TRAPS

BV A 105



POS.	DESCRIPTION	MATERIALS	SPARES
1	Outlet body	ASTM A 105	
2	Inlet body	ASTM A 105	
3	Valve assembly	STAINLESS STEEL	X
4	Gasket	AISI 304	X
5	Screen	AISI 304	X

Size (inches)	S	A	Weight (Kg)
½"	80	36	0.6
¾"	93	36	0.8



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 BV steam trap to the "as new from factory" condition. This operation is carried out in a few minuteswithout removing the trap from the pipeline. Unscrew the body (1) (2). Unscrew and remove the valve assembly (3). Clean the inside of the trap fit a new gasket (4) and screw in the new valve assembly (3). Rassembly the bodies (1) (2).The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

How to order: i.e. *BV ¾" SW 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.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BV F 304

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

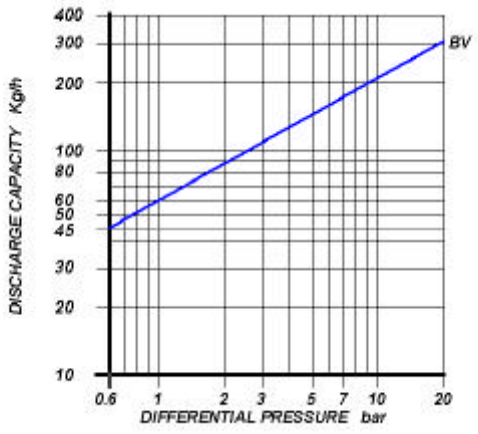
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

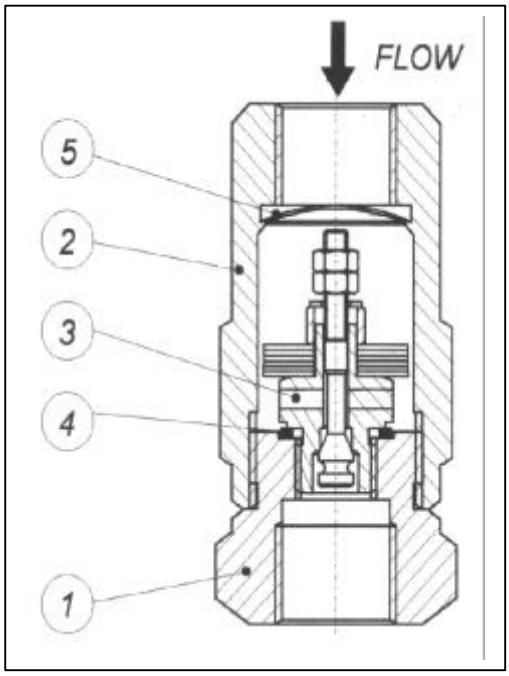
SIZES
½" – ¾"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 300
PMA: Max allowable pressure	50 bar
TMA: max allowable temperature	500°C
PMO: max working pressure	20 bar
TMO: max working temperature	250°C

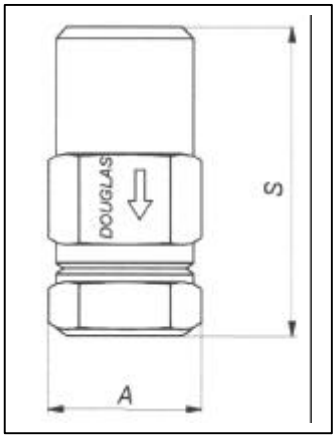
BIMETALLIC THERMOSTATIC STEAM TRAPS

BV F 304



POS.	DESCRIPTION	MATERIALS	SPARES
1	Outlet body	ASTM A182 F304	
2	Inlet body	ASTM A182 F 304	
3	Valve assembly	STAINLESS STEEL	X
4	Gasket	AISI 304	X
5	Screen	AISI 304	X

Size (inches)	S	A	Weight (Kg)
½"	80	36	0.6
¾"	93	36	0.8



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 BV steam trap to the "as new from factory" condition. This operation is carried out in a few minuteswithout removing the trap from the pipeline. Unscrew the body (1) (2). Unscrew and remove the valve assembly (3). Clean the inside of the trap fit a new gasket (4) and screw in the new valve assembly (3). Rassembly the bodies (1) (2).The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

How to order: i.e. *BV ¾" SW F 304*

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DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BF

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

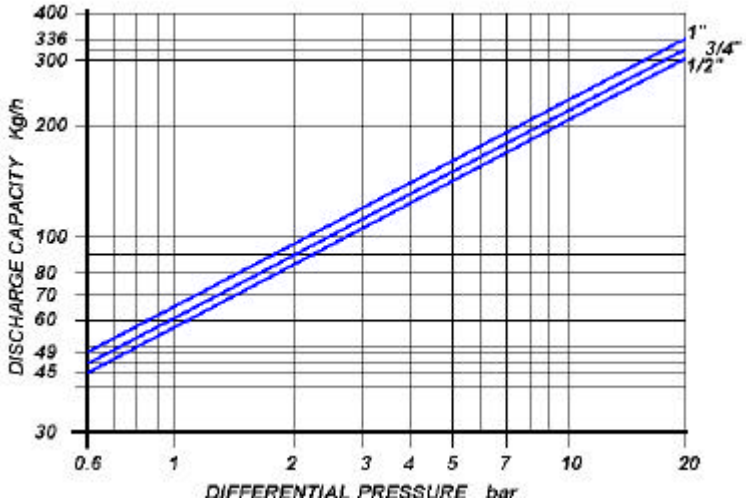
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

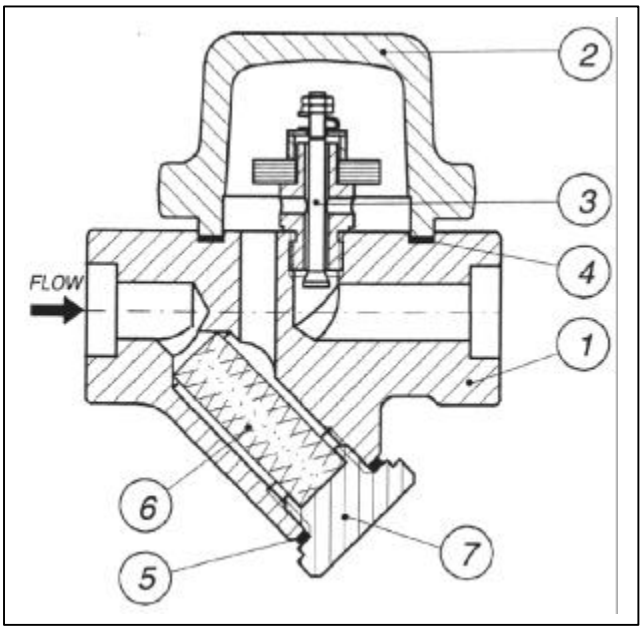
SIZES
½" – ¾" – 1"

CONNECTIONS	
SCREWED	*ANSI B1.20.1 (NPT) / BS21 (BSP)*
SOCKET WELD	*ANSI B16.11*
FLANGED	*ANSI 150#/300#/600#/UNI/DIN*

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	*ANSI 300*
PMA: Max allowable pressure	*50 bar*
TMA: max allowable temperature	*390°C*
PMO: max working pressure	*20 bar*
TMO: max working temperature	*350°C*

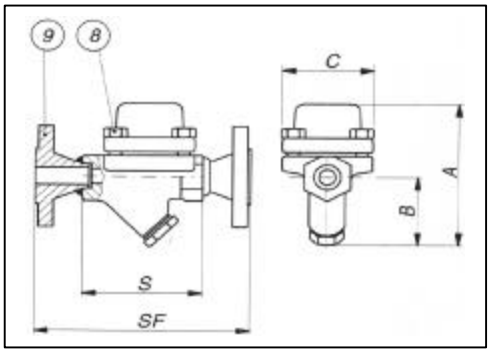
BIMETALLIC THERMOSTATIC STEAM TRAPS

BF



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A105	
2	Cover	ASTM A105	
3	Valve assembly	STAINLESS STEEL	X
4	Gasket	316 / GRAPHITE	X
5	Gasket	316 / GRAPHITE	X
6	Screen	AISI 304	X
7	Strainer cap	ASTM A105	
7	Blow-off valve *	AISI 416	
8	Bolts	ASTM A193 B7	
9	Flange	ASTM A105	
*** Optional**			

Size (inches)	S	A	B	C	Weight (Kg)	Flanged UNI-DIN PN16-25-40 SF	Kg	150# SF	Kg	300# SF	Kg	600# SF	Kg
½"	93	120	60	70	2.5	159	4.1	153	5.7	173	4.1	183	4.3
¾"	93	120	60	70	2.5	163	4.9	163	4.1	183	5.3	193	5.7
1"	105	130	70	70	3.5	175	6.3	185	3.9	195	6.9	215	7.3



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 BF steam trap to the "as new from factory" condition. This operation is carried out in few minutes without removing the trap from the pipeline. Unscrew the 4 bolts (8) and remove cover (2). Unscrew and remove the element (3). Clean the insede of the trap and screw in the new element assembly. Fit a new gasket (4) and reinstall cover (2) tightening the bolts (8). To service the strainer, unscrew cap (7), withdraw screen (6) and clean or replace it. Screwing the cap back in place, always fit a new gasket (5). The discharge temperature may be adjusted without removing the trap from the line. For informatin about this operation, to be performed only by qualified personnel, please ask our Techincal Departement.

How to order: i.e. *BF ¾" 300 RF*

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DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BX 13 F 316

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

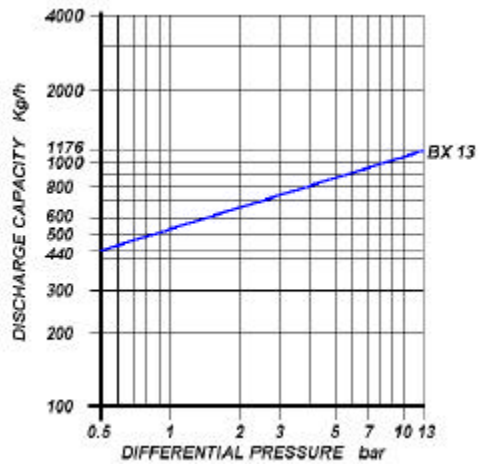
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

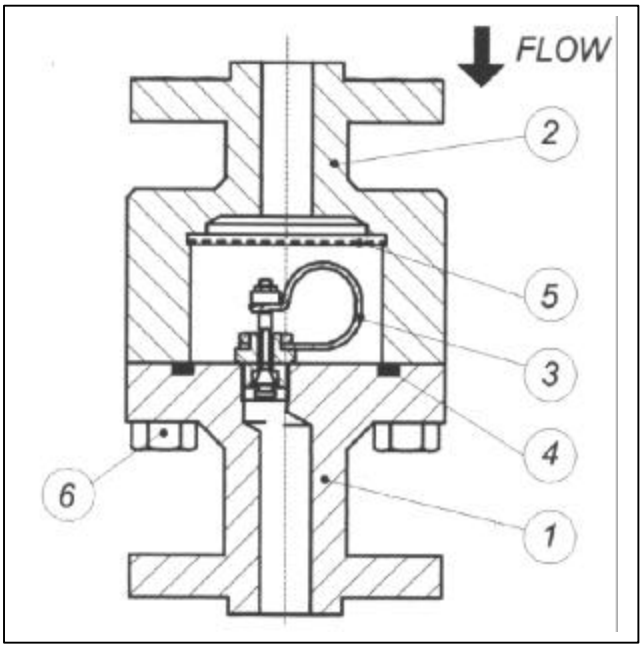
SIZES
½" – ¾"

CONNECTIONS	
FLANGED	ANSI 150#/300#/600#/UNI/DIN

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 300
PMA: Max allowable pressure	50 bar
TMA: max allowable temperature	390°C
PMO: max working pressure	13 bar
TMO: max working temperature	250°C

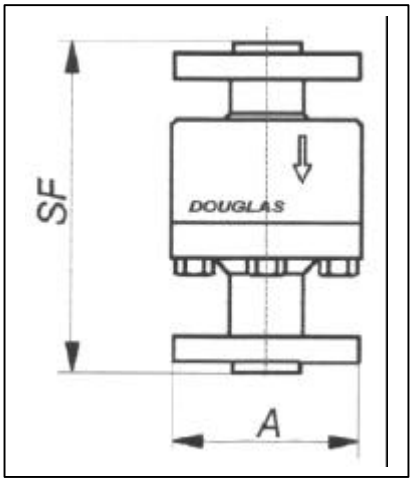
BIMETALLIC THERMOSTATIC STEAM TRAPS

BX 13 F 316



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A182 F316	
2	Cover	ASTM A182 F316	
3	Valve assembly	STAINLESS STEEL	X
4	Gasket	316 / GRAPHITE	X
5	Screen	AISI 304	X
6	Bolt	ASTM A193 B8	X

	Flanged		
Size (inches)	A	SF	Kg
½"	96	200	5
¾"	118	206	6



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 BX 13 F316 steam trap to the "as new from factory" condition. Unscrew the bolts (6) and remove cover (2) and gasket (4). Unscrew and remove the element (3). Clean the inside of the trap, clean screen (5) and screw in the element-gasket assembly. Fit a new gasket (3), fit screen (5) and reinstall cover (2) tightening the bolts (6).

How to order: i.e. *BX 13 F316 ¾" 300 RF*

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DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BB

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

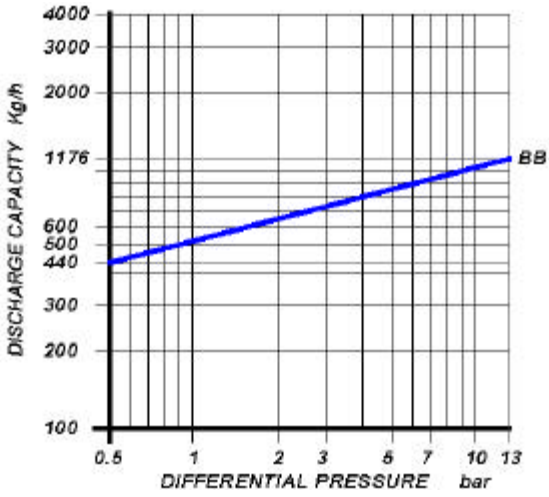
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

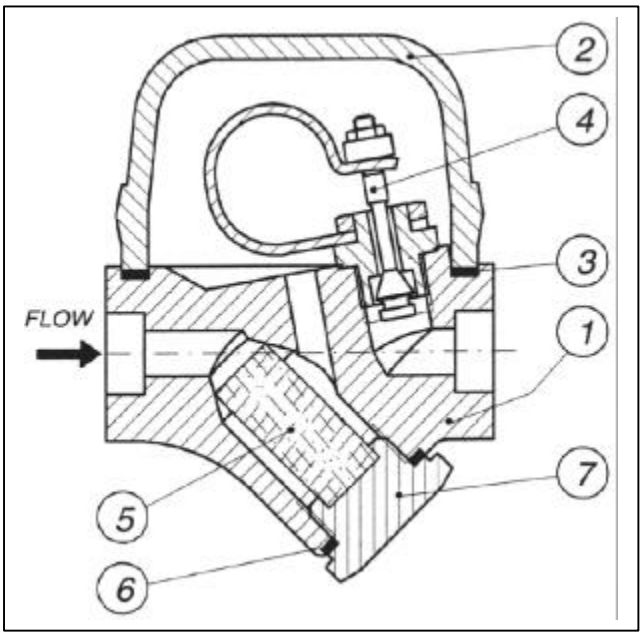
SIZES
½" – ¾"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 300
PMA: Max allowable pressure	50 bar
TMA: max allowable temperature	390°C
PMO: max working pressure	13 bar
TMO: max working temperature	250°C

BIMETALLIC THERMOSTATIC STEAM TRAPS

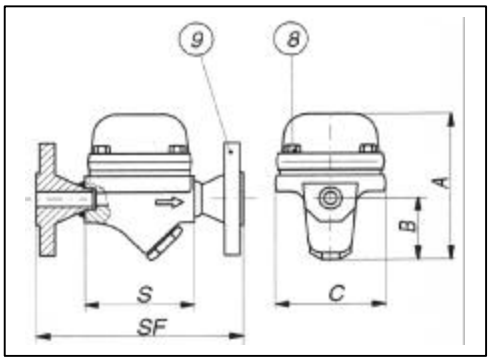
BB



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A105	
2	Cover	ASTM A105	
3	Gasket	316 / GRAPHITE	X
4	Valve assembly	STAINLESS STEEL	X
5	Screen	AISI 304	X
6	Gasket	316 / GRAPHITE	X
7	Strainer cap	ASTM A105	
7	Blow-off valve *	AISI 416	
8	Bolts	ASTM A193 B7	
9	Flange	ASTM A105	

*** Optional**

Size (inches)	S	A	B	C	Weight (Kg)	Flanged							
						UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	100	150	55	100	3.8	166	5.4	160	5.2	180	5.4	190	5.6
¾"	100	150	55	100	3.8	170	6.1	170	5.4	190	6.6	200	7



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 BB steam trap to the "as new from factory" condition. Unscrew the 4 bolts (8) and remove cover (2) and gasket (3). Unscrew and remove the element (4). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (3) and reinstall cover (2) tightening the bolts (8). To service the strainer, unscrew cap (7), withdraw screen (5) and clean or replace it. Screwing the cap back in place, always fit a new gasket (6). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

How to order: i.e. *BB ¾" 300 RF*

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DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BC 8

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

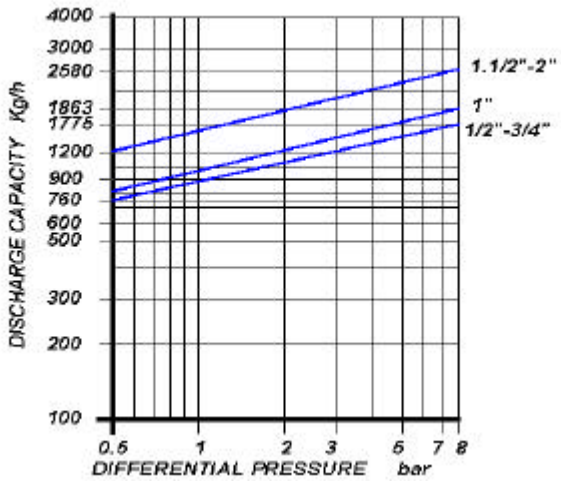
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

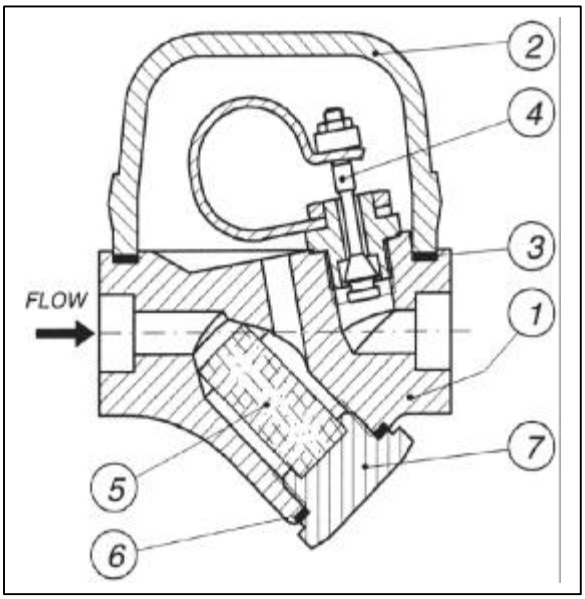
SIZES
½" – ¾" – 1" – 1. ½" – 2"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 300
PMA: Max allowable pressure	50 bar
TMA: max allowable temperature	390°C
PMO: max working pressure	8 bar
TMO: max working temperature	250°C

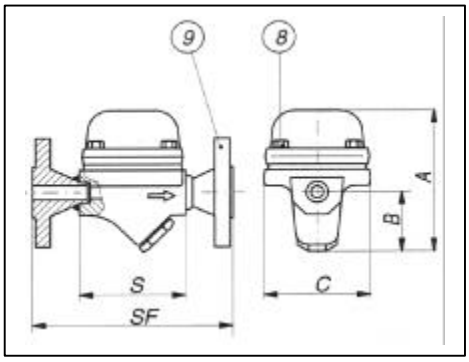
BIMETALLIC THERMOSTATIC STEAM TRAPS

BC 8



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A105	
2	Cover	ASTM A105	
3	Gasket	316 / GRAPHITE	X
4	Valve assembly	STAINLESS STEEL	X
5	Screen	AISI 304	X
6	Gasket	316 / GRAPHITE	X
7	Strainer cap	ASTM A105	
7	Blow-off valve *	AISI 416	
8	Bolts	ASTM A193 B7	
9	Flange	ASTM A105	
* Optional			

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	100	150	55	100	3.8	166	5.4	160	5.2	180	5.4	190	5.6
¾"	100	150	55	100	3.8	170	6.1	170	5.4	190	6.6	200	7
1"	120	160	65	100	4.5	190	7.3	200	6.7	210	7.9	230	8.3
1½""	160	205	80	170	13	240	17	250	16	260	19.4	280	20.2
2"	160	205	80	170	13	246	19	250	18.5	260	20.2	280	22.4



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 BC steam trap to the "as new from factory" condition. Unscrew the bolts (8) and remove cover (2) and gasket (3). Unscrew and remove the element (4). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (3) and reinstall cover (2) tightening the bolts (8). To service the strainer, unscrew cap (7), withdraw screen (5) and clean or replace it. Screwing the cap back in place, always fit a new gasket (6). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

How to order: i.e. *BC 20 1" 150 RF*

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OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BC 20

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

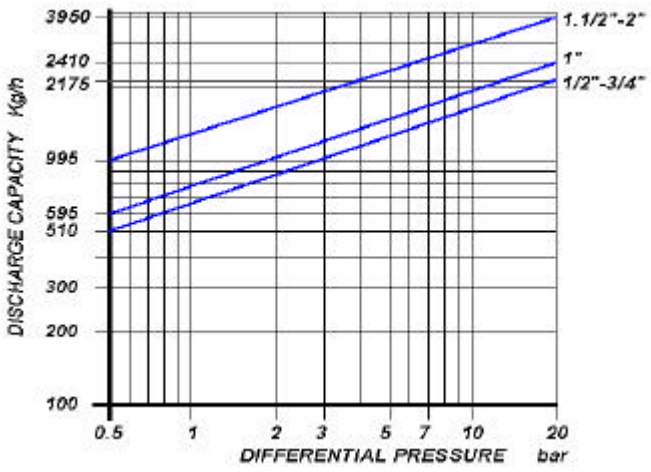
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

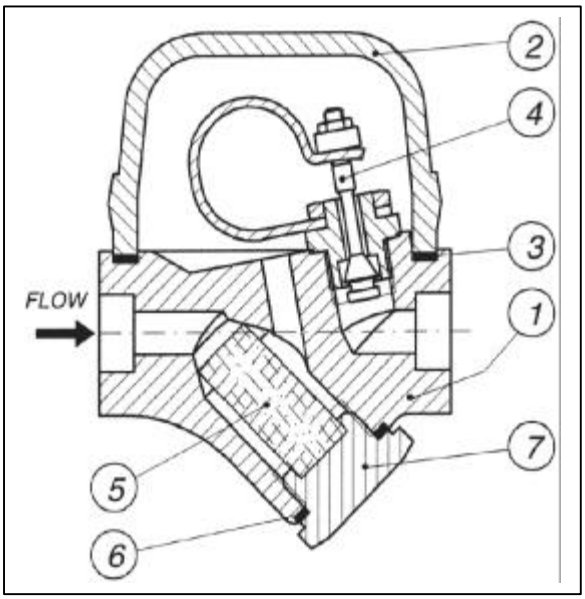
SIZES
½" – ¾" – 1" – 1. ½" – 2"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 300
PMA: Max allowable pressure	50 bar
TMA: max allowable temperature	390°C
PMO: max working pressure	20 bar
TMO: max working temperature	275°C

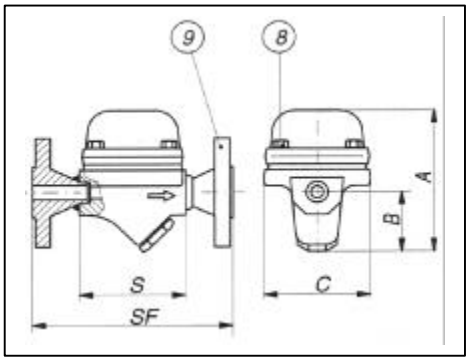
BIMETALLIC THERMOSTATIC STEAM TRAPS

BC 20



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A105	
2	Cover	ASTM A105	
3	Gasket	316 / GRAPHITE	X
4	Valve assembly	STAINLESS STEEL	X
5	Screen	AISI 304	X
6	Gasket	316 / GRAPHITE	X
7	Strainer cap	ASTM A105	
7	Blow-off valve *	AISI 416	
8	Bolts	ASTM A193 B7	
9	Flange	ASTM A105	
* Optional			

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	100	150	55	100	3.8	166	5.4	160	5.2	180	5.4	190	5.6
¾"	100	150	55	100	3.8	170	6.1	170	5.4	190	6.6	200	7
1"	120	160	65	100	4.5	190	7.3	200	6.7	210	7.9	230	8.3
1½""	160	205	80	170	13	240	17	250	16	260	19.4	280	20.2
2"	160	205	80	170	13	246	19	250	18.5	260	20.2	280	22.4



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 BC steam trap to the "as new from factory" condition. Unscrew the bolts (8) and remove cover (2) and gasket (3). Unscrew and remove the element (4). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (3) and reinstall cover (2) tightening the bolts (8). To service the strainer, unscrew cap (7), withdraw screen (5) and clean or replace it. Screwing the cap back in place, always fit a new gasket (6). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

How to order: i.e. BC 20 1" 150 RF

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BC 30

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

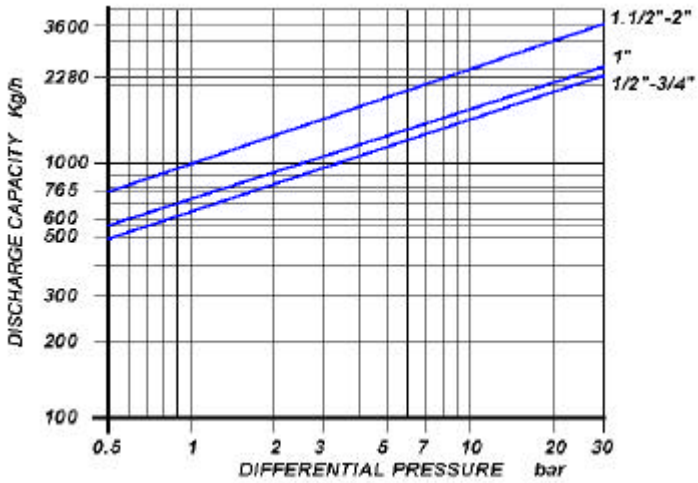
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

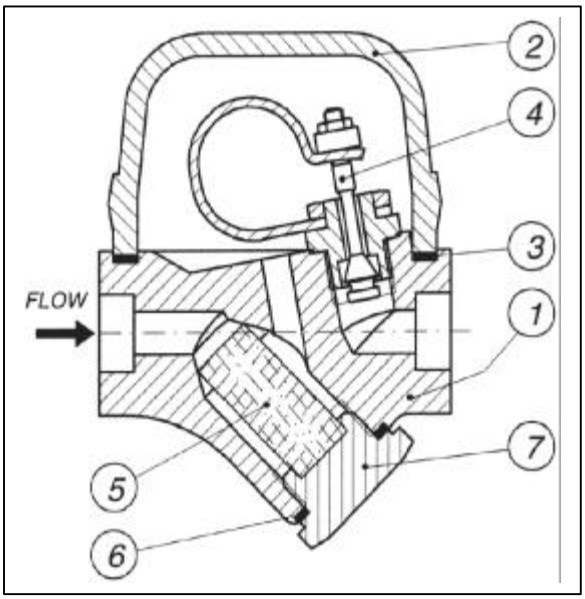
SIZES
½" – ¾" – 1" – 1. ½" – 2"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 300
PMA: Max allowable pressure	50 bar
TMA: max allowable temperature	390°C
PMO: max working pressure	30 bar
TMO: max working temperature	300°C

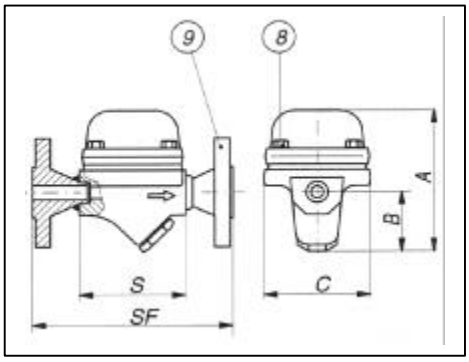
BIMETALLIC THERMOSTATIC STEAM TRAPS

BC 30



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A105	
2	Cover	ASTM A105	
3	Gasket	316 / GRAPHITE	X
4	Valve assembly	STAINLESS STEEL	X
5	Screen	AISI 304	X
6	Gasket	316 / GRAPHITE	X
7	Strainer cap	ASTM A105	
7	Blow-off valve *	AISI 416	
8	Bolts	ASTM A193 B7	
9	Flange	ASTM A105	
* Optional			

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	100	150	55	100	3.8	166	5.4	160	5.2	180	5.4	190	5.6
¾"	100	150	55	100	3.8	170	6.1	170	5.4	190	6.6	200	7
1"	120	160	65	100	4.5	190	7.3	200	6.7	210	7.9	230	8.3
1½""	160	205	80	170	13	240	17	250	16	260	19.4	280	20.2
2"	160	205	80	170	13	246	19	250	18.5	260	20.2	280	22.4



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 BC steam trap to the "as new from factory" condition. Unscrew the bolts (8) and remove cover (2) and gasket (3). Unscrew and remove the element (4). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (3) and reinstall cover (2) tightening the bolts (8). To service the strainer, unscrew cap (7), withdraw screen (5) and clean or replace it. Screwing the cap back in place, always fit a new gasket (6). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

How to order: i.e. BC 20 1" 150 RF

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BC 40

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

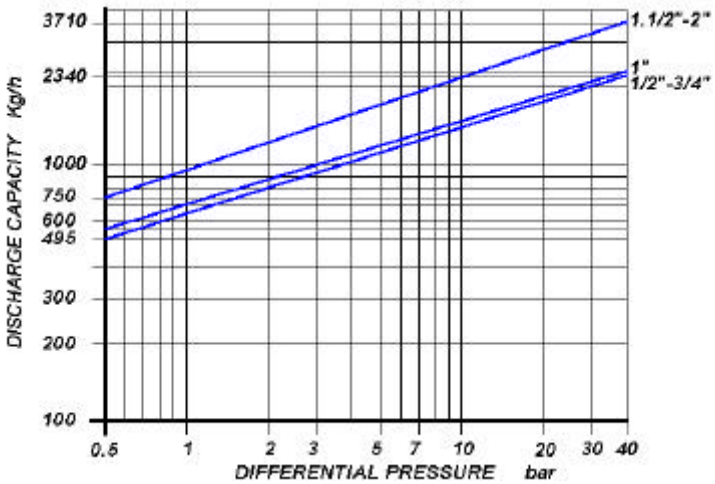
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

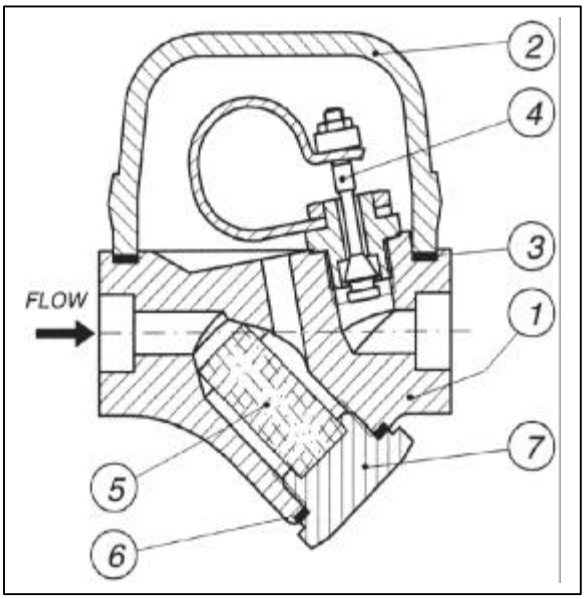
SIZES
½" – ¾" – 1" – 1. ½" – 2"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 300
PMA: Max allowable pressure	50 bar
TMA: max allowable temperature	390°C
PMO: max working pressure	40 bar
TMO: max working temperature	300°C

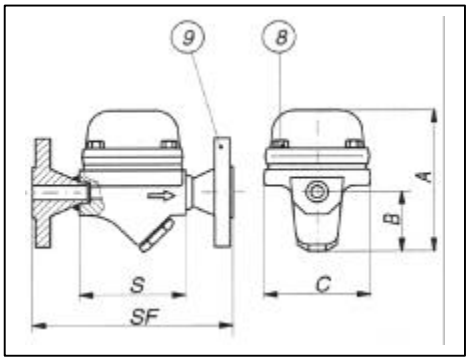
BIMETALLIC THERMOSTATIC STEAM TRAPS

BC 40



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A105	
2	Cover	ASTM A105	
3	Gasket	316 / GRAPHITE	X
4	Valve assembly	STAINLESS STEEL	X
5	Screen	AISI 304	X
6	Gasket	316 / GRAPHITE	X
7	Strainer cap	ASTM A105	
7	Blow-off valve *	AISI 416	
8	Bolts	ASTM A193 B7	
9	Flange	ASTM A105	
* Optional			

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	100	150	55	100	3.8	166	5.4	160	5.2	180	5.4	190	5.6
¾"	100	150	55	100	3.8	170	6.1	170	5.4	190	6.6	200	7
1"	120	160	65	100	4.5	190	7.3	200	6.7	210	7.9	230	8.3
1½""	160	205	80	170	13	240	17	250	16	260	19.4	280	20.2
2"	160	205	80	170	13	246	19	250	18.5	260	20.2	280	22.4



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 BC steam trap to the "as new from factory" condition. Unscrew the bolts (8) and remove cover (2) and gasket (3). Unscrew and remove the element (4). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (3) and reinstall cover (2) tightening the bolts (8). To service the strainer, unscrew cap (7), withdraw screen (5) and clean or replace it. Screwing the cap back in place, always fit a new gasket (6). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

How to order: i.e. BC 20 1" 150 RF

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BD A 105

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

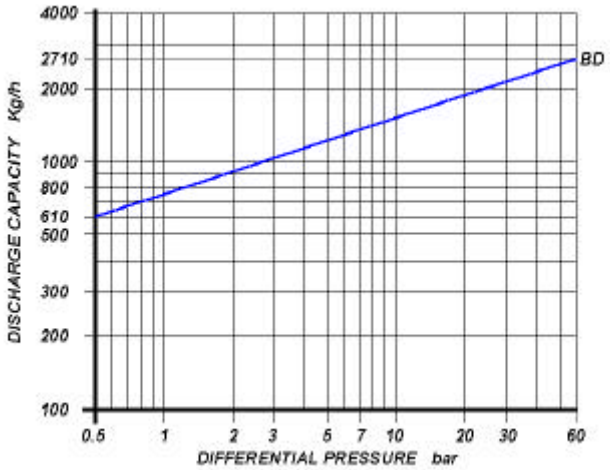
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

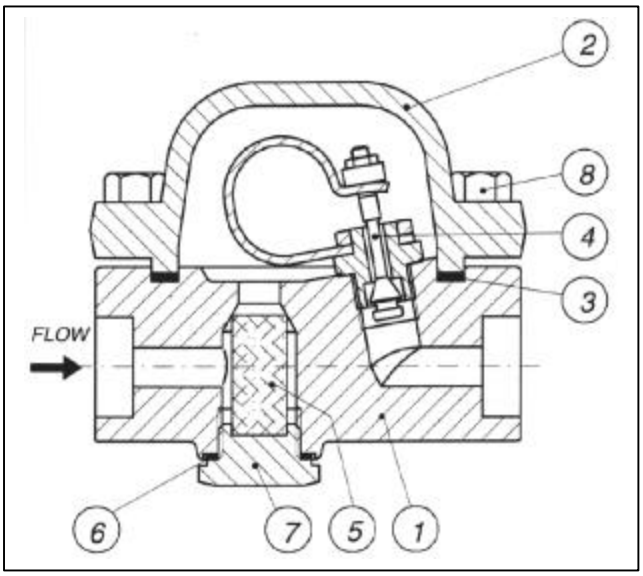
SIZES
½" – ¾" – 1"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT)
BUTTWELD	ANSI B16.25
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 600
PMA: Max allowable pressure	100 bar
TMA: max allowable temperature	390°C
PMO: max working pressure	60 bar
TMO: max working temperature	340°C

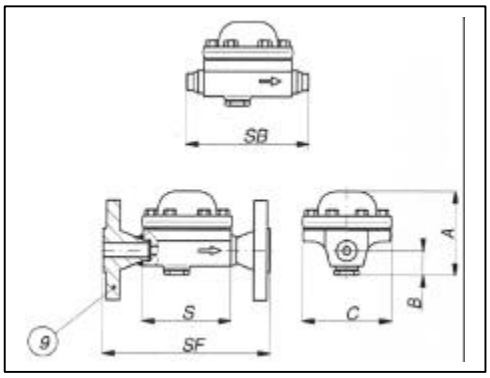
BIMETALLIC THERMOSTATIC STEAM TRAPS

BD A 105



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A105	
2	Cover	ASTM A105	
3	Gasket	316 / GRAPHITE	X
4	Valve assembly	STAINLESS STEEL	X
5	Screen	AISI 304	X
6	Gasket	316 / GRAPHITE	X
7	Strainer cap	ASTM A105	
7	Blow-off valve *	AISI 416	
8	Bolts	ASTM A193 B7	
9	Flange	ASTM A105	
*** Optional**			

							Flanged							
Size (inches)	S	SB	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
							SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	145	200	130	35	145	8	211	9.5	205	9.2	225	9.5	235	10.5
¾"	145	200	130	35	145	8	215	10	215	9.5	235	10.5	245	11
1"	145	200	130	35	145	8	215	10.5	225	10	235	11.2	255	11.5



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 BD steam trap to the "as new from factory" condition. Unscrew the 8 bolts (8) and remove cover (2) and gasket (3). Unscrew and remove the element (4). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (3) and reinstall cover (2) tightening the bolts (8). To service the strainer, unscrew cap (7), withdraw screen (5) and clean or replace it. Screwing the cap back in place, always fit a new gasket (6). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

How to order: i.e. *BD A 105 ¾" 300 RF*

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BD F 11

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

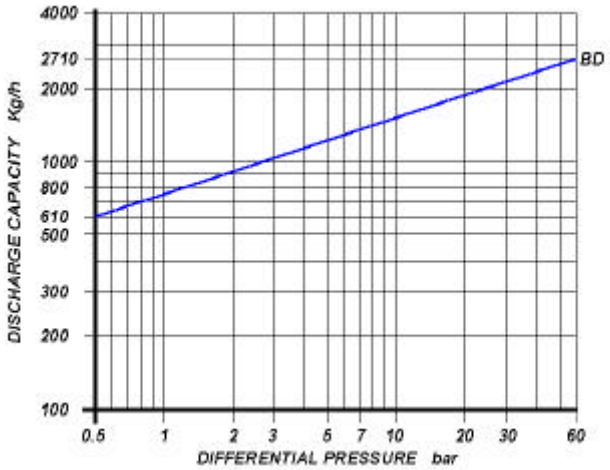
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

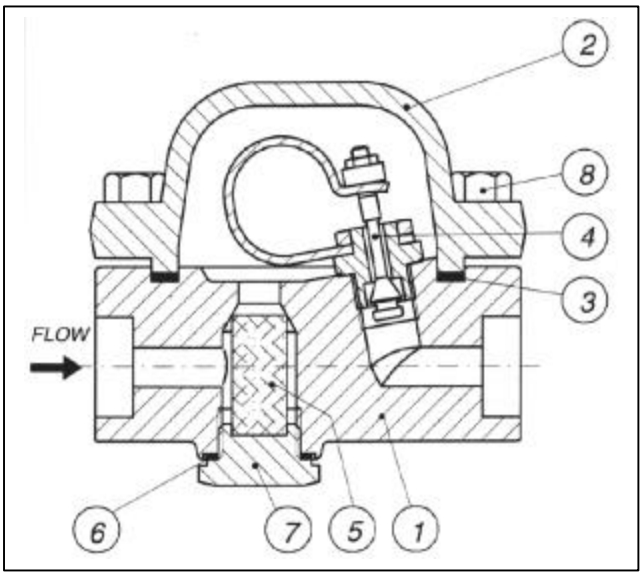
SIZES
½" – ¾" – 1"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT)
BUTTWELD	ANSI B16.25
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 600
PMA: Max allowable pressure	100 bar
TMA: max allowable temperature	510°C
PMO: max working pressure	60 bar
TMO: max working temperature	340°C

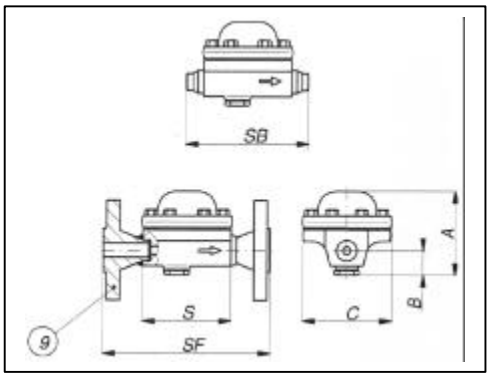
BIMETALLIC THERMOSTATIC STEAM TRAPS

BD F 11



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A182 F11	
2	Cover	ASTM A182 F11	
3	Gasket	316 / GRAPHITE	X
4	Valve assembly	STAINLESS STEEL	X
5	Screen	AISI 304	X
6	Gasket	316 / GRAPHITE	X
7	Strainer cap	ASTM A105	
7	Blow-off valve *	AISI 416	
8	Bolts	ASTM A193 B7	
9	Flange	ASTM A182 F11	
*** Optional**			

Flanged														
Size (inches)	S	SB	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
							SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	145	200	130	35	145	8	211	9.5	205	9.2	225	9.5	235	10.5
¾"	145	200	130	35	145	8	215	10	215	9.5	235	10.5	245	11
1"	145	200	130	35	145	8	215	10.5	225	10	235	11.2	255	11.5



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 BD steam trap to the "as new from factory" condition. Unscrew the 8 bolts (8) and remove cover (2) and gasket (3). Unscrew and remove the element (4). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (3) and reinstall cover (2) tightening the bolts (8). To service the strainer, unscrew cap (7), withdraw screen (5) and clean or replace it. Screwing the cap back in place, always fit a new gasket (6). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

How to order: i.e. *BD A 105 ¾" 300 RF*

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BD 60S F22

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

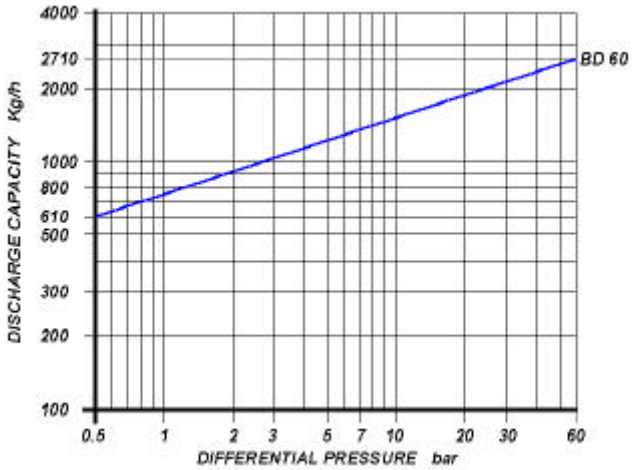
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

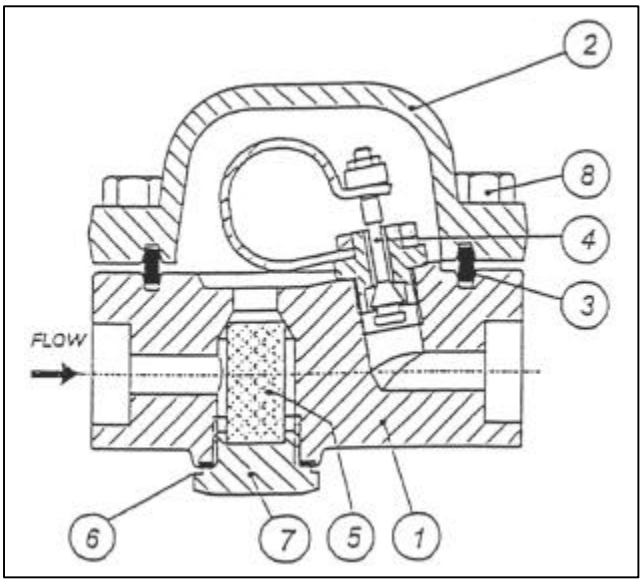
SIZES
½" – ¾" – 1"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI B16.5

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 800
PMA: Max allowable pressure	137 bar
TMA: max allowable temperature	570°C
PMO: max working pressure	60 bar
TMO: max working temperature	340°C

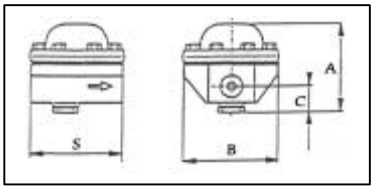
BIMETALLIC THERMOSTATIC STEAM TRAPS

BD 60S F22



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A182 F22	
2	Cover	ASTM A182 F22	
3	Gasket	316 / GRAPHITE	X
4	Valve assembly	STAINLESS STEEL	X
5	Screen	AISI 316	X
6	Gasket	316 / GRAPHITE	X
7	Strainer cap	ASTM A182 F22	
8	Bolts	ASTM A193 B8	

Size (inches)	S	A	B	C
½"	145	140	170	35
¾"	145	140	170	35
1"	145	140	170	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 BD 60S F22 steam trap to the "as new from factory" condition. Unscrew the bolts (8) and remove cover (2) and gasket (3). Unscrew and remove the element (4). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (3) and reinstall cover (2) tightening the bolts (8). To service the strainer, unscrew cap (7), withdraw screen (5) and clean or replace it. Screwing the cap back in place, always fit a new gasket (6). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

How to order: i.e. *BD 60S F22 ¾" NPT*

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DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BD 60 S1

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

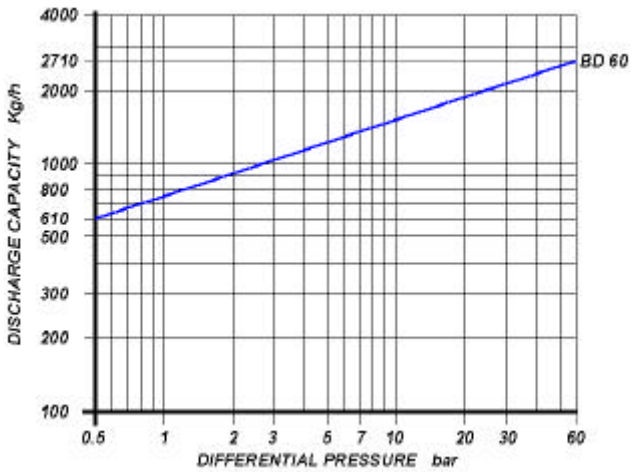
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

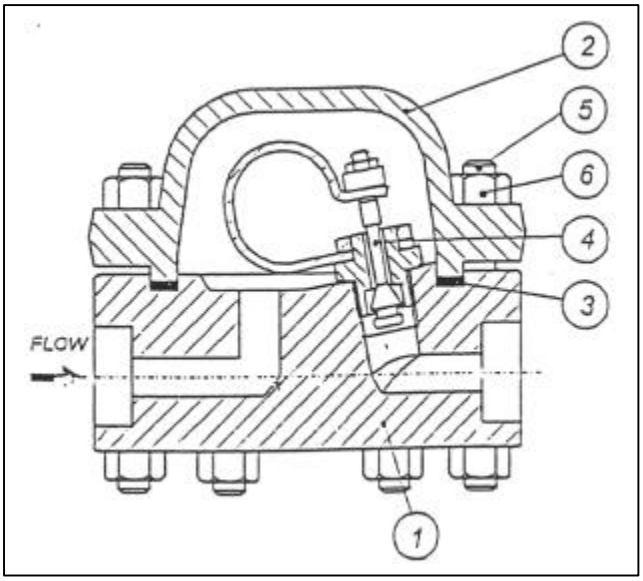
SIZES
½" – ¾" – 1"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI B16.5

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 800
PMA: Max allowable pressure	137 bar
TMA: max allowable temperature	570°C
PMO: max working pressure	60 bar
TMO: max working temperature	340°C

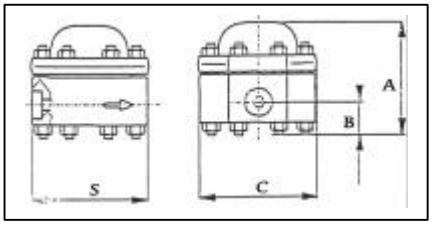
BIMETALLIC THERMOSTATIC STEAM TRAPS

BD 60 S1



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	SA F2205	
2	Cover	SA F2205	
3	Gasket	316 / GRAPHITE	X
4	Valve assembly	STAINLESS STEEL	X
5	Studs	ASTM A193 B8	
6	Nuts	ASTM A194 Gr.8	

Size (inches)	S	A	B	C
½"	145	140	35	170
¾"	145	140	35	170
1"	145	140	35	170



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 BD 60 S1 steam trap to the "as new from factory" condition. Unscrew the bolts (5) and remove cover (2) and gasket (3). Unscrew and remove the element (4). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (3) and reinstall cover (2) tightening the bolts (5). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

How to order: i.e. *BD 60 S1 ¾" NPT*

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DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BD 80S F11

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

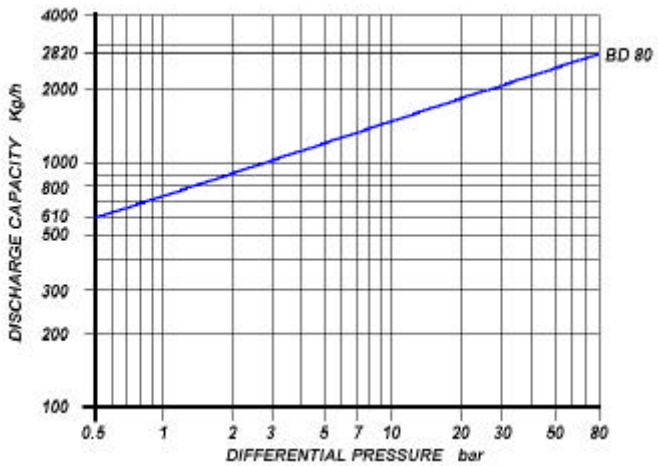
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

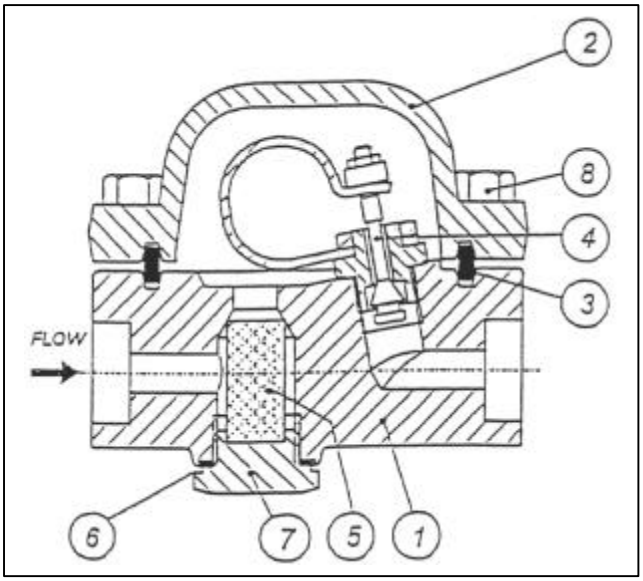
SIZES
½" – ¾" – 1"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 1500
PMA: Max allowable pressure	258 bar
TMA: max allowable temperature	570°C
PMO: max working pressure	80 bar
TMO: max working temperature	340°C

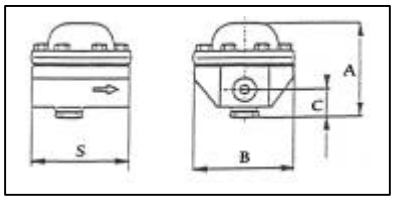
BIMETALLIC THERMOSTATIC STEAM TRAPS

BD 80S F11



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A 182 F11	
2	Cover	ASTM A 182 F11	
3	RJ	ASTM A 182 F304	X
4	Valve assembly	STAINLESS STEEL	X
5	Screen	AISI 316	X
6	Gasket	316 / GRAPHITE	X
7	Strainer cap	ASTM A 182 F11	
8	Bolts	ASTM A193 B8	

Size (inches)	S	A	B	C
½"	180	150	190	45
¾"	180	150	190	45
1"	180	150	190	45



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 BD 80S F11 steam trap to the "as new from factory" condition. Unscrew the bolts (8) and remove cover (2) and gasket (3). Unscrew and remove the element (4). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (3) and reinstall cover (2) tightening the bolts (8). To service the strainer, unscrew cap (7), withdraw screen (5) and clean or replace it. Screwing the cap back in place, always fit a new gasket (6). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

How to order: i.e. *BD 80S F11 ¾" NPT*

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DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BD 80S F22

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

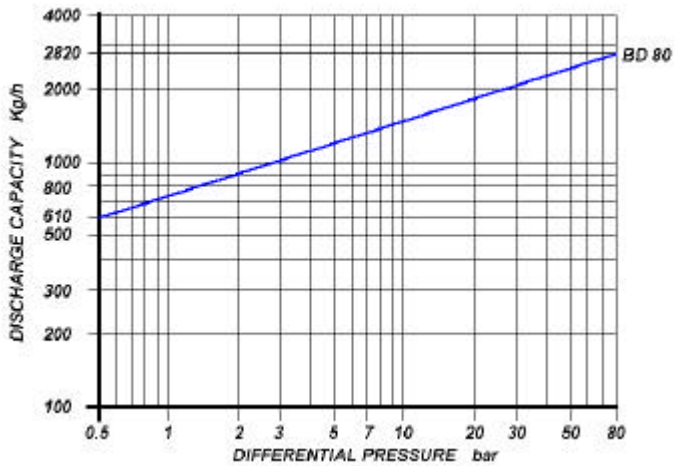
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

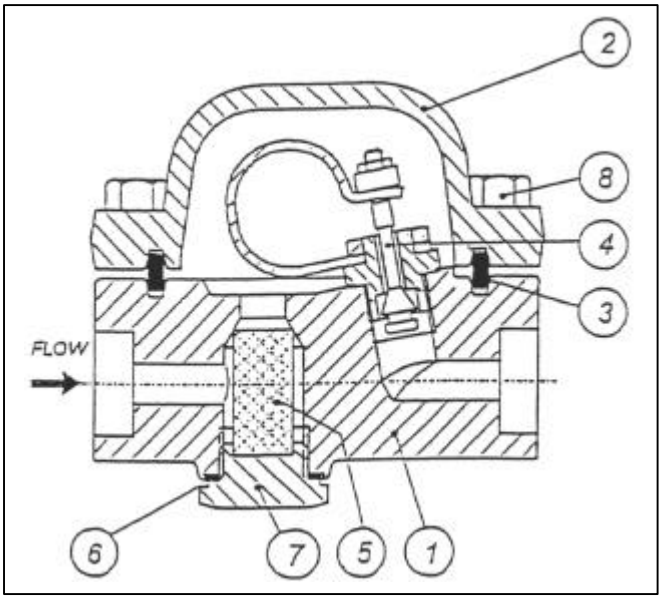
SIZES
½" – ¾" – 1" – 1½" – 2"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 1500
PMA: Max allowable pressure	258 bar
TMA: max allowable temperature	570°C
PMO: max working pressure	80 bar
TMO: max working temperature	340°C

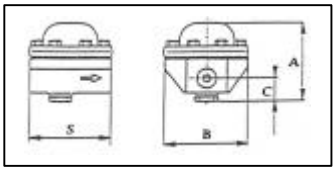
BIMETALLIC THERMOSTATIC STEAM TRAPS

BD 80S F22



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A 182 F22	
2	Cover	ASTM A 182 F22	
3	RJ	ASTM A 182 F22	X
4	Valve assembly	STAINLESS STEEL	X
5	Screen	AISI 316	X
6	Gasket	316 / GRAPHITE	X
7	Strainer cap	ASTM A 182 F22	
8	Bolts	ASTM A193 B8	

Size (inches)	S	A	B	C
½"	180	150	190	45
¾"	180	150	190	45
1"	180	150	190	45



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 BD 80S F22 steam trap to the "as new from factory" condition. Unscrew the bolts (8) and remove cover (2) and gasket (3). Unscrew and remove the element (4). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (3) and reinstall cover (2) tightening the bolts (8). To service the strainer, unscrew cap (7), withdraw screen (5) and clean or replace it. Screwing the cap back in place, always fit a new gasket (6). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

How to order: i.e. *BD 80S F22 ¾" NPT*

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DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BX 80 F22

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

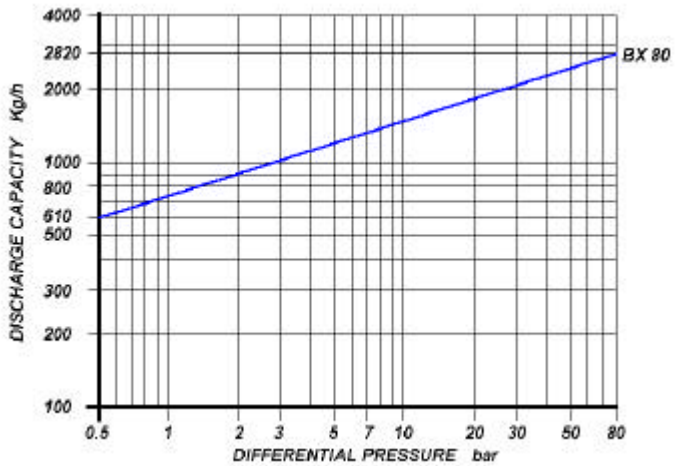
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

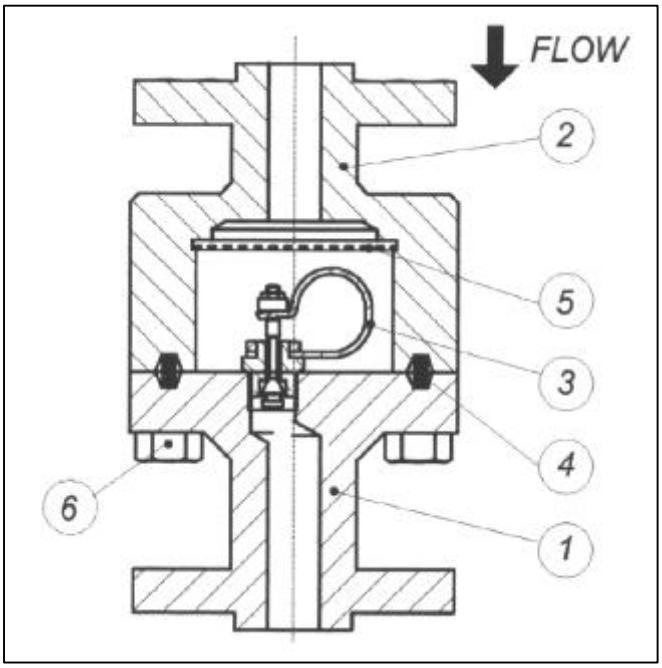
SIZES
1" – 2"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 1500

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 1500
PMA: Max allowable pressure	258 bar
TMA: max allowable temperature	570°C
PMO: max working pressure	80 bar
TMO: max working temperature	340°C

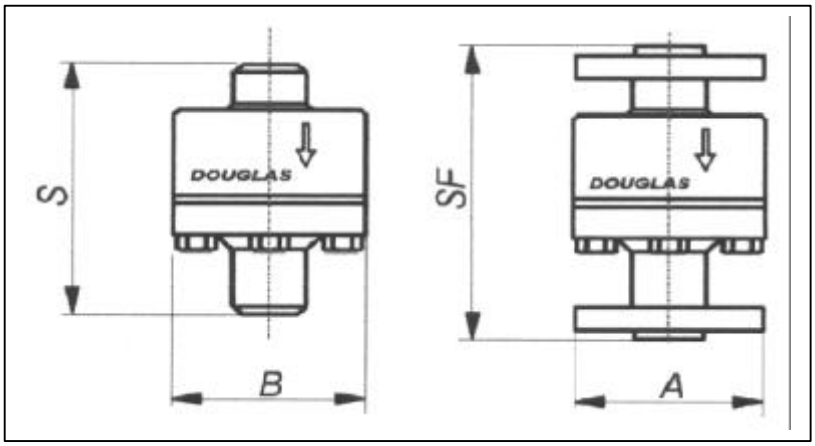
BIMETALLIC THERMOSTATIC STEAM TRAPS

BX 80 F22



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A182 F22	
2	Cover	ASTM A182 F22	
3	Valve assembly	STAINLESS STEEL	X
4	Gasket RJ	ASTM A182 F304	X
5	Screen	AISI 304	X
6	Bolt	ASTM A193 B8	X

Size (inches)	S	B	A	SF	Weight (Kg)
1"	173	180	149	243	30.2
2"	173	180	216	262	44.6



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 BX 80 F22 steam trap to the "as new from factory" condition. Unscrew the bolts (6) and remove cover (2) and gasket (4). Unscrew and remove the element (3). Clean the inside of the trap, clean screen (5) and screew in the element-gasket assembly. Fit a new gasket (3), fit screen (5) and reinstall cover (2) tightening the bolts (6).

How to order: i.e. *BX 80 F22 1" NPT*

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DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BD 100 F22

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

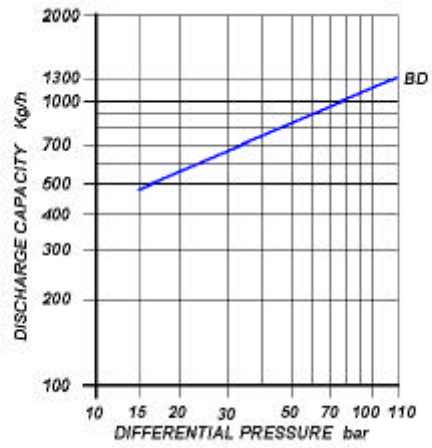
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

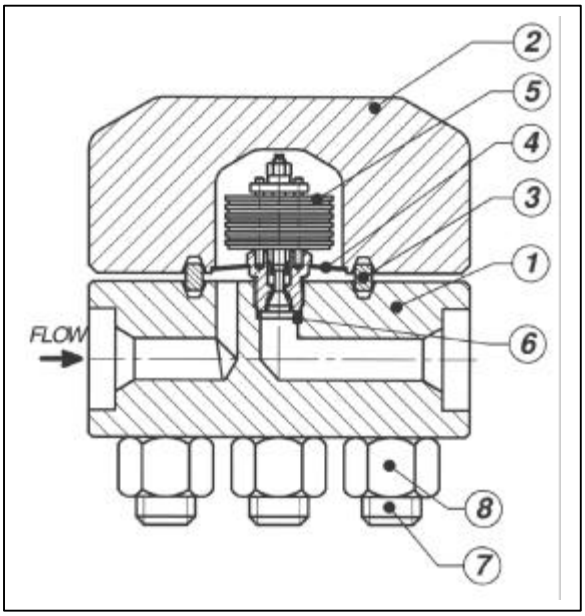
SIZES
½" – ¾" – 1"

CONNECTIONS	
SOCKET WELD	ANSI B16.11
FLANGED	ANSI B16.5 RF-RJ (600 – 1500)

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 1500
PMA: Max allowable pressure	250 bar
TMA: max allowable temperature	580°C
PMO: max working pressure	110 bar
TMO: max working temperature	550°C

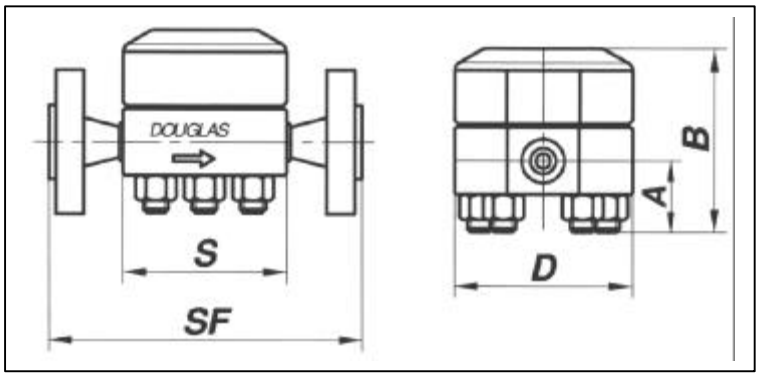
BIMETALLIC THERMOSTATIC STEAM TRAPS

BD 100 F22



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A182 F22	
2	Cover	ASTM A182 F22	
3	Cover gasket RJ	ASTM A182 F304	X
4	Screen	AISI 304	X
5	Seat	NITRONIC 50 + STELLITE	X
5	Valve	NITRONIC 60	X
5	Bimetallic element	STAINESS STEEL	X
6	Gasket seat	ASTM A182 F316	X
7	Studs	ASTM A320 L7	
8	Nuts	ASTM A194 Gr.4	

						Flanged			
Size (inches)	S	A	B	D	Weight (Kg)	600#		1500#	
						SF	Kg	SF	Kg
½"	151	50	175	160	25	252	29	270	34
¾"	151	50	175	160	25	262	30	288	35
1"	151	50	175	160	25	270	33	292	38



INSTALLATION

The steam trap is designed for installation on horizontal line with the cover at the top. The steam trap may be used on superheated steam. Condensate is discharged below steam temperature (30°). Subcooling temperature may be adjusted on field without removing the trap from the line. For information for this operation, to be performed only be qualifield personnel, please ask our technical department.

HOW TO SERVICE

By installing a new valve assembly you can bring the BD 100 steam trap to the "as new from factory"condition. Unscrew the 8 nuts (8). Remove cover (2) and RJ gasket (3). Unscrew and remove valve assembly (5) with screen (4). Clean the inside of the trap and clean or replace the screen (4). Screw in the new valve assembly (5) with screen (4) and reinstall cover (2) tightening the nuts (8).

How to order: i.e. *BD 100 1" 1500 RF*

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DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BD 120 A105

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

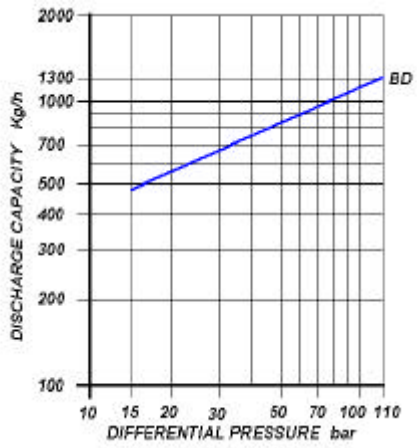
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

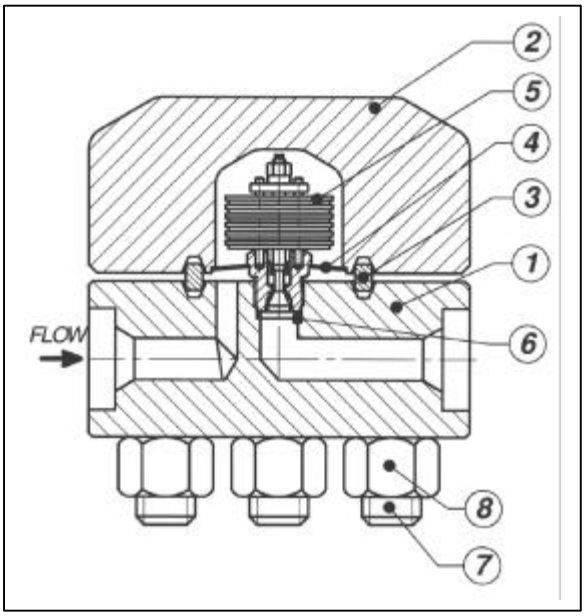
SIZES
½" – ¾" – 1" – 1½"

CONNECTIONS	
SOCKET WELD	ANSI B16.11
FLANGED	ANSI B16.5 RF-RJ (1500 – 2500)

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 2500
PMA: Max allowable pressure	425 bar
TMA: max allowable temperature	425°C
PMO: max working pressure	110 bar
TMO: max working temperature	400°C

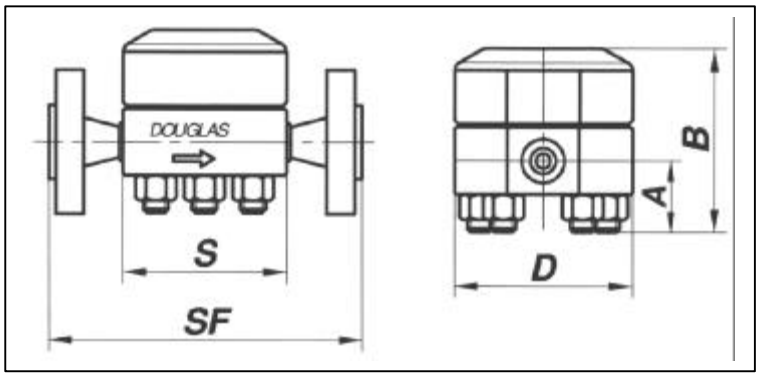
BIMETALLIC THERMOSTATIC STEAM TRAPS

BD 120 A105



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A105	
2	Cover	ASTM A105	
3	Cover gasket RJ	ASTM A182 F304	X
4	Screen	AISI 304	X
5	Seat	NITRONIC 50 + STELLITE	X
5	Valve	NITRONIC 60	X
5	Bimetallic element	STAINESS STEEL	X
6	Gasket seat	ASTM A182 F316	X
7	Studs	ASTM A320 B7	
8	Nuts	ASTM A194 2H	

Flanged											
Size (inches)	S	A	B	D	Weight (Kg)	1500 RF -RJ		2500 RF		2500 RJ	
						SF	Kg	SF	Kg	SF	Kg
½"	185	70	200	200	35	322	40	341	44	341	44
¾"	185	70	200	200	35	322	40	341	44	341	44
1"	185	70	200	200	35	328	43	360	48	360	49
1½""	185	70	200	200	35	345	47	402	54	405	55



INSTALLATION

The steam trap is designed for installation on horizontal line with the cover at the top. The steam trap may be used on superheated steam. Condensate is discharged below steam temperature (30°). Subcooling temperature may be adjusted on field without removing the trap from the line. For information for this operation, to be performed only be qualifield personnel, please ask our technical department.

HOW TO SERVICE

By installing a new valve assembly you can bring the BD 120 A105 steam trap to the "as new from factory"condition. Unscrew the 8 nuts (8). Remove cover (2) and RJ gasket (3). Unscrew and remove valve assembly (5) with screen (4). Clean the inside of the trap and clean or replace the screen (4). Screw in the new valve assembly (5) with screen (4) and reinstall cover (2) tightening the nuts (8).

How to order: i.e. *BD 120 A105 1" 1500 RF*

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BD 120 F22

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

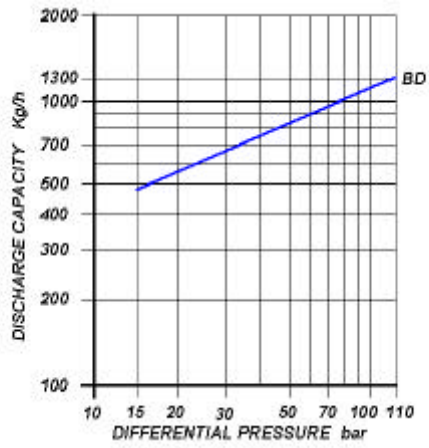
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

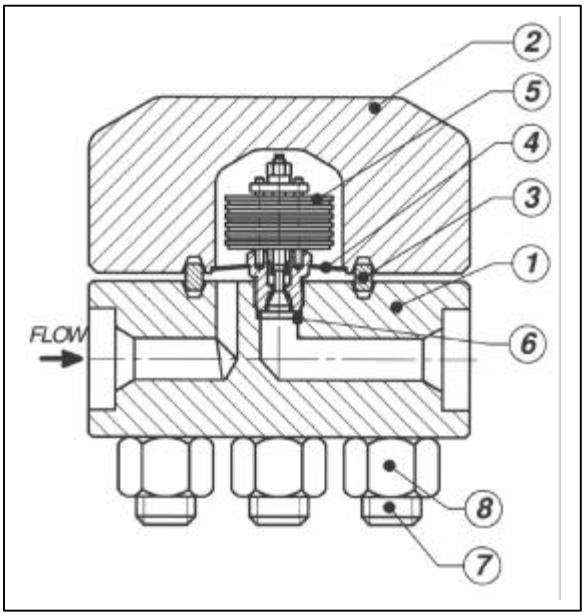
SIZES
½" – ¾" – 1" – 1½"

CONNECTIONS	
SOCKET WELD	ANSI B16.11
FLANGED	ANSI B16.5 RF-RJ (1500 – 2500)

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 2500
PMA: Max allowable pressure	430 bar
TMA: max allowable temperature	580°C
PMO: max working pressure	110 bar
TMO: max working temperature	550°C

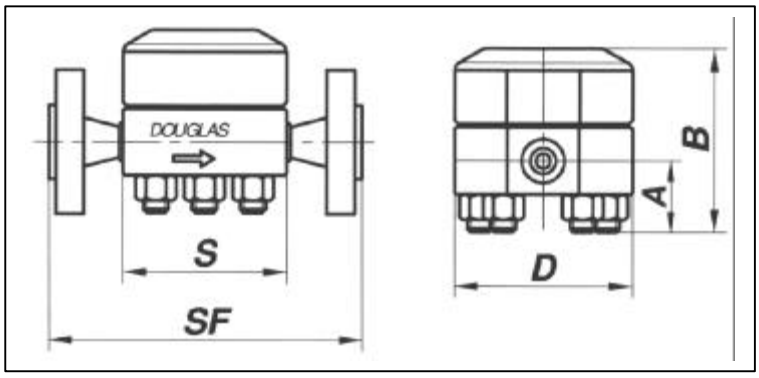
BIMETALLIC THERMOSTATIC STEAM TRAPS

BD 120 F22



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A182 F22	
2	Cover	ASTM A182 F22	
3	Cover gasket RJ	ASTM A182 F304	X
4	Screen	AISI 304	X
5	Seat	NITRONIC 50 + STELLITE	X
5	Valve	NITRONIC 60	X
5	Bimetallic element	STAINESS STEEL	X
6	Gasket seat	ASTM A182 F316	X
7	Studs	ASTM A320 L7	
8	Nuts	ASTM A194 Gr.4	

Flanged											
Size (inches)	S	A	B	D	Weight (Kg)	1500 RF -RJ		2500 RF		2500 RJ	
						SF	Kg	SF	Kg	SF	Kg
½"	185	70	200	200	35	305	36	331	42	331	42
¾"	185	70	200	200	35	322	40	341	44	341	44
1"	185	70	200	200	35	328	43	360	48	360	49
1½""	185	70	200	200	35	345	47	402	54	405	55



INSTALLATION

The steam trap is designed for installation on horizontal line with the cover at the top. The steam trap may be used on superheated steam. Condensate is discharged below steam temperature (30°). Subcooling temperature may be adjusted on field without removing the trap from the line. For information for this operation, to be performed only be qualifield personnel, please ask our technical department.

HOW TO SERVICE

By installing a new valve assembly you can bring the BD 120 F22 steam trap to the "as new from factory"condition. Unscrew the 8 nuts (8). Remove cover (2) and RJ gasket (3). Unscrew and remove valve assembly (5) with screen (4). Clean the inside of the trap and clean or replace the screen (4). Screw in the new valve assembly (5) with screen (4) and reinstall cover (2) tightening the nuts (8).

How to order: i.e. BD 120 F22 1" 1500 RF

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BC 20 S1

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

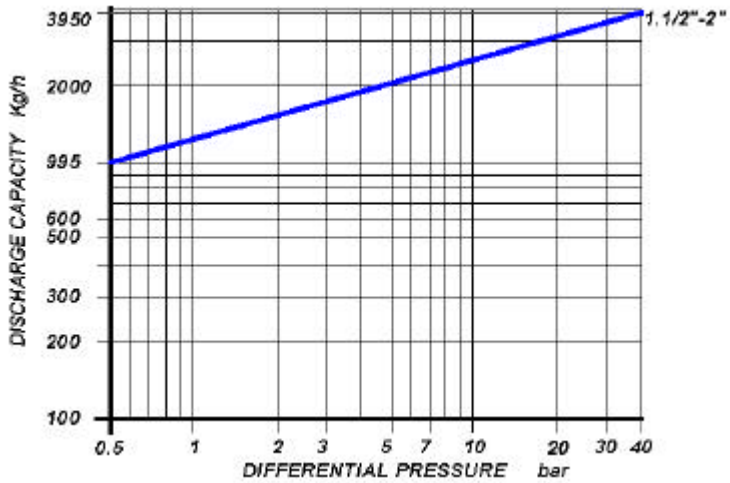
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

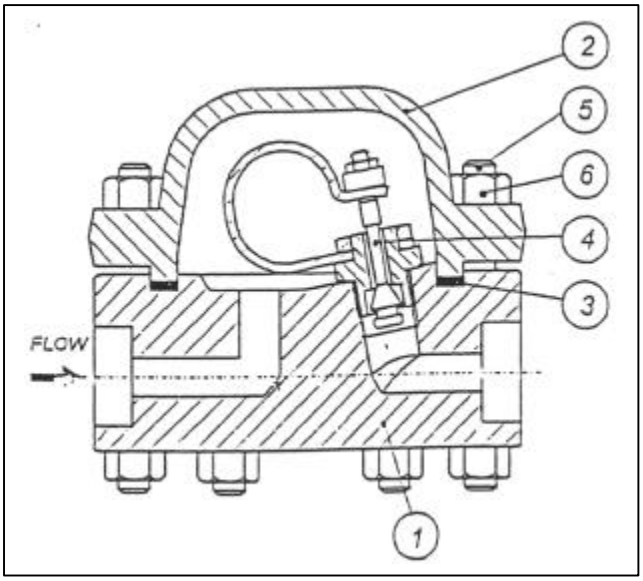
SIZES
1½" – 2"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI B16.5

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 800
PMA: Max allowable pressure	137 bar
TMA: max allowable temperature	570°C
PMO: max working pressure	20 bar
TMO: max working temperature	275°C

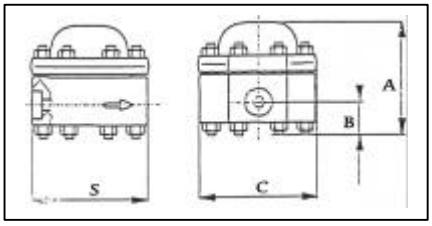
BIMETALLIC THERMOSTATIC STEAM TRAPS

BC 20 S1



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	SA F2205	
2	Cover	SA F2205	
3	Gasket	316 / GRAPHITE	X
4	Valve assembly	STAINLESS STEEL	X
5	Studs	ASTM A193 B8	
6	Nuts	ASTM A194 Gr.8	

Size (inches)	S	A	B	C
1½""	160	190	60	180
2"	160	190	60	180



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 BC 20 S1 steam trap to the "as new from factory" condition. Unscrew the bolts (5) and remove cover (2) and gasket (3). Unscrew and remove the element (4). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (3) and reinstall cover (2) tightening the bolts (5). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

How to order: i.e. *BC 20 S1 2" NPT*

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

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DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BCS 8 F 316

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

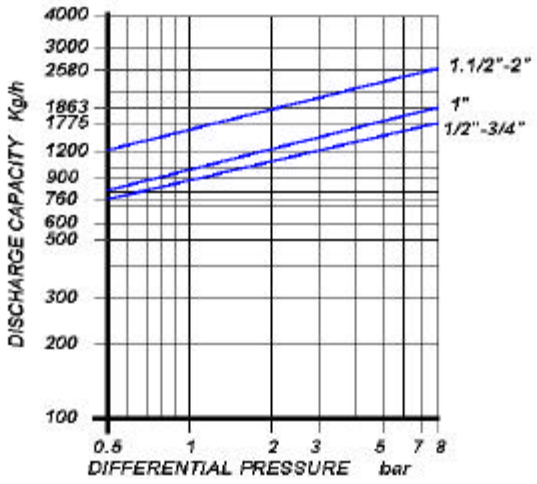
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

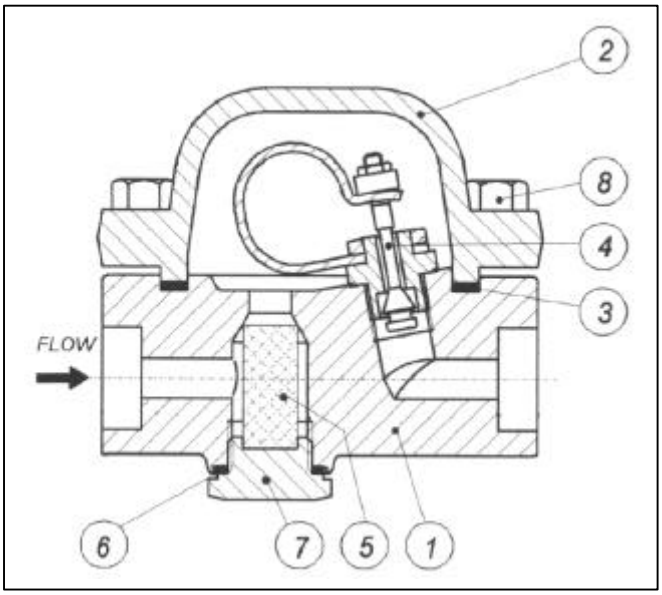
SIZES
½" – ¾" – 1" – 1. ½" – 2"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 800
PMA: Max allowable pressure	132 bar
TMA: max allowable temperature	500°C
PMO: max working pressure	8 bar
TMO: max working temperature	250°C

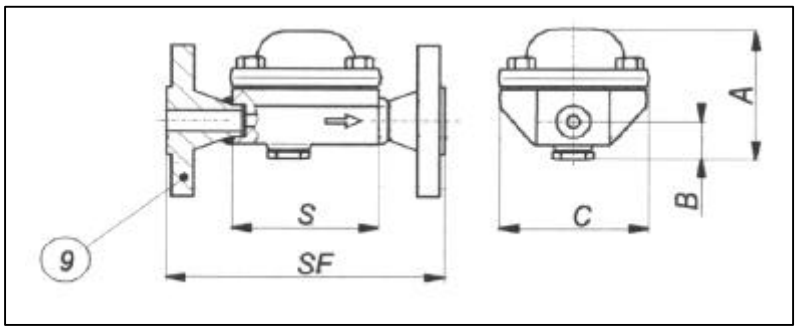
BIMETALLIC THERMOSTATIC STEAM TRAPS

BCS 8 F316



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A182 F316	
2	Cover	ASTM A182 F316	
3	Gasket	316 / GRAPHITE	X
4	Valve assembly	STAINLESS STEEL	X
5	Screen	AISI 304	X
6	Gasket	316 / GRAPHITE	X
7	Strainer cap	ASTM A182 F316	
8	Bolts	ASTM A193 B8	
9	Flange	ASTM A182 F316	

Flanged												
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	100	129	35	135	7	166	8.5	160	8.2	180	8.5	190	9
¾"	100	129	35	135	7	170	8.5	170	8.2	190	8.5	200	9
1"	120	129	35	135	7	190	10	200	10.2	210	10.7	230	12
1½""	160	181	52	180	15	240	16.1	250	16	260	16.5	280	17
2"	160	181	52	180	15	246	18	250	20	260	21	280	23



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. Before welding a SW trap, remove element (4). This operation can be avoided by using arc electrod welding. For installation with superheated steam, please conctact our Technical Departement

HOW TO SERVICE

By installing a new element assemly you can bring the BC steam trap to the "as new from factory" condition. Unscrew the bolts (8) and remove cover (2) and gasket (3). Unscrew and remove the element (4). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (3) and reinstall cover (2) tightening the bolts (8). To service the strainer, unscrew cap (7), withdraw screen (5) and clean or replace it. Screwing the cap back in place, always fit a new gasket (6). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

How to order: i.e. *BCS 20 F316 1" 150 RF*

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BCS 20 F 316

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

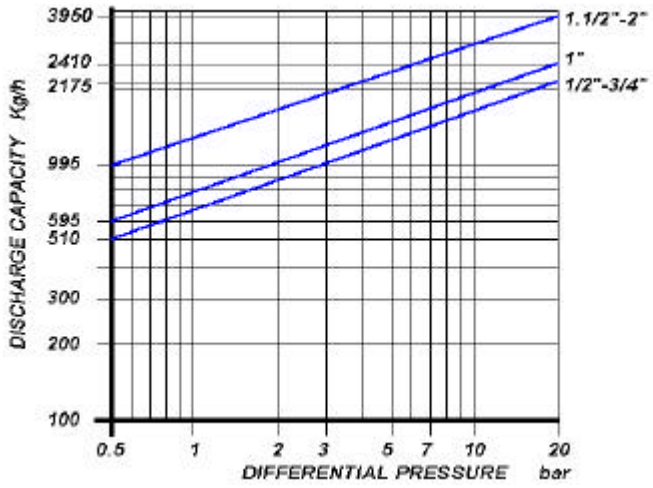
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

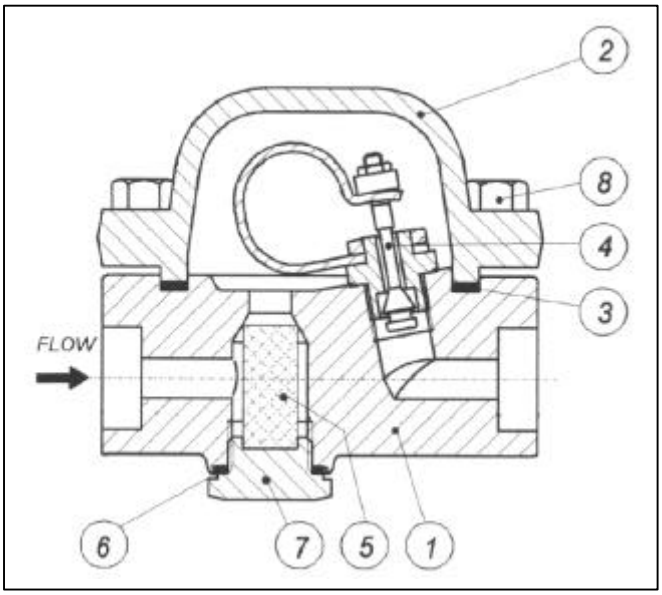
SIZES
½" – ¾" – 1" – 1. ½" – 2"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 800
PMA: Max allowable pressure	132 bar
TMA: max allowable temperature	500°C
PMO: max working pressure	20 bar
TMO: max working temperature	275°C

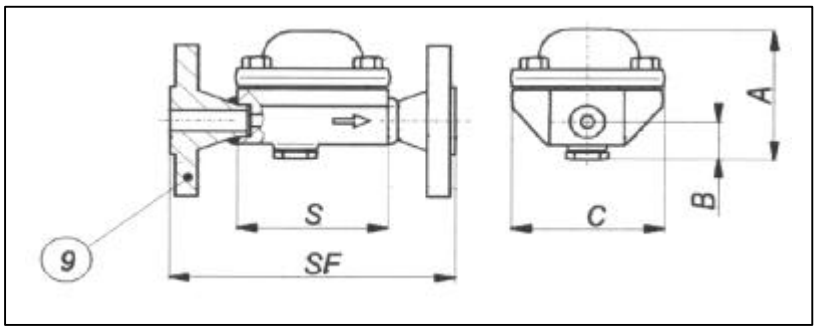
BIMETALLIC THERMOSTATIC STEAM TRAPS

BCS 20 F316



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A182 F316	
2	Cover	ASTM A182 F316	
3	Gasket	316 / GRAPHITE	X
4	Valve assembly	STAINLESS STEEL	X
5	Screen	AISI 304	X
6	Gasket	316 / GRAPHITE	X
7	Strainer cap	ASTM A182 F316	
8	Bolts	ASTM A193 B8	
9	Flange	ASTM A182 F316	

Flanged												
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	100	129	35	135	7	166	8.5	160	8.2	180	8.5	190	9
¾"	100	129	35	135	7	170	8.5	170	8.2	190	8.5	200	9
1"	120	129	35	135	7	190	10	200	10.2	210	10.7	230	12
1½""	160	181	52	180	15	240	16.1	250	16	260	16.5	280	17
2"	160	181	52	180	15	246	18	250	20	260	21	280	23



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. Before welding a SW trap, remove element (4). This operation can be avoided by using arc electrod welding. For installation with superheated steam, please conctact our Technical Departement

HOW TO SERVICE

By installing a new element assemly you can bring the BC steam trap to the "as new from factory" condition. Unscrew the bolts (8) and remove cover (2) and gasket (3). Unscrew and remove the element (4). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (3) and reinstall cover (2) tightening the bolts (8). To service the strainer, unscrew cap (7), withdraw screen (5) and clean or replace it. Screwing the cap back in place, always fit a new gasket (6). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

How to order: i.e. *BCS 20 F316 1" 150 RF*

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BCS 30 F 316

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

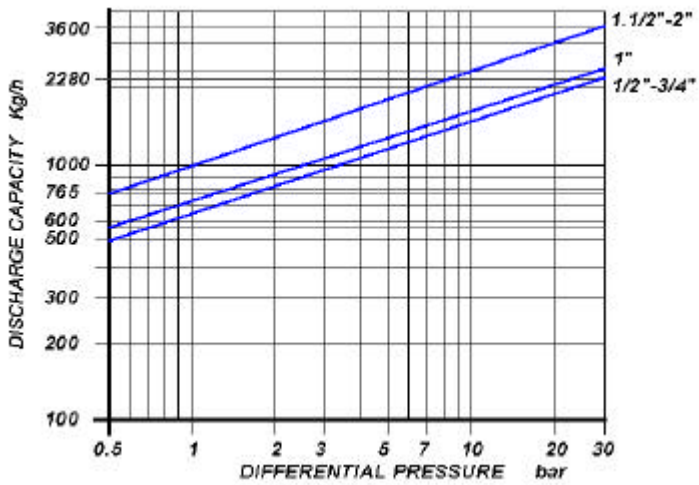
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

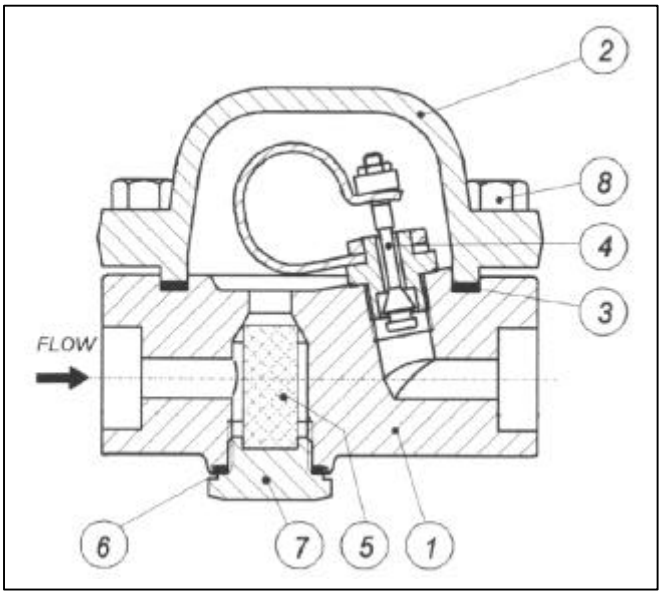
SIZES
½" – ¾" – 1" – 1. ½" – 2"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 800
PMA: Max allowable pressure	132 bar
TMA: max allowable temperature	500°C
PMO: max working pressure	30 bar
TMO: max working temperature	300°C

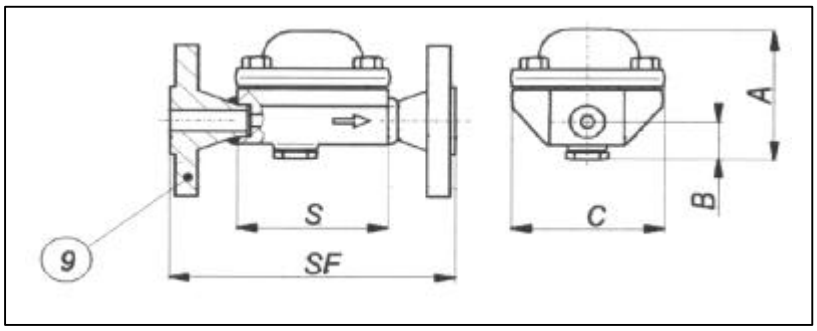
BIMETALLIC THERMOSTATIC STEAM TRAPS

BCS 30 F316



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A182 F316	
2	Cover	ASTM A182 F316	
3	Gasket	316 / GRAPHITE	X
4	Valve assembly	STAINLESS STEEL	X
5	Screen	AISI 304	X
6	Gasket	316 / GRAPHITE	X
7	Strainer cap	ASTM A182 F316	
8	Bolts	ASTM A193 B8	
9	Flange	ASTM A182 F316	

Flanged												
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	100	129	35	135	7	166	8.5	160	8.2	180	8.5	190	9
¾"	100	129	35	135	7	170	8.5	170	8.2	190	8.5	200	9
1"	120	129	35	135	7	190	10	200	10.2	210	10.7	230	12
1½""	160	181	52	180	15	240	16.1	250	16	260	16.5	280	17
2"	160	181	52	180	15	246	18	250	20	260	21	280	23



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. Before welding a SW trap, remove element (4). This operation can be avoided by using arc electrod welding. For installation with superheated steam, please conctact our Technical Departement

HOW TO SERVICE

By installing a new element assemly you can bring the BC steam trap to the "as new from factory" condition. Unscrew the bolts (8) and remove cover (2) and gasket (3). Unscrew and remove the element (4). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (3) and reinstall cover (2) tightening the bolts (8). To service the strainer, unscrew cap (7), withdraw screen (5) and clean or replace it. Screwing the cap back in place, always fit a new gasket (6). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

How to order: i.e. *BCS 20 F316 1" 150 RF*

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BCS 40 F 316

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

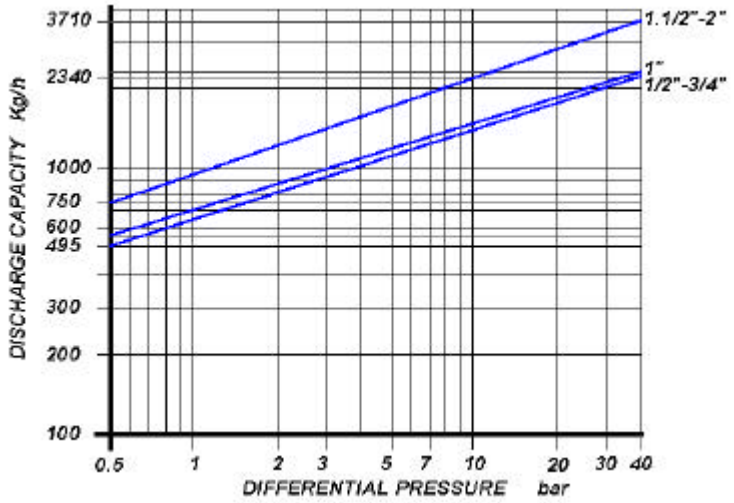
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

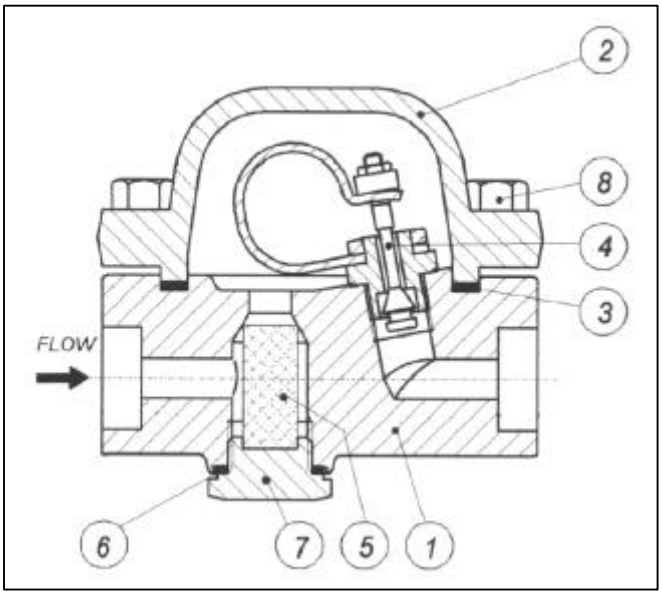
SIZES
½" – ¾" – 1" – 1. ½" – 2"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 800
PMA: Max allowable pressure	132 bar
TMA: max allowable temperature	500°C
PMO: max working pressure	40 bar
TMO: max working temperature	300°C

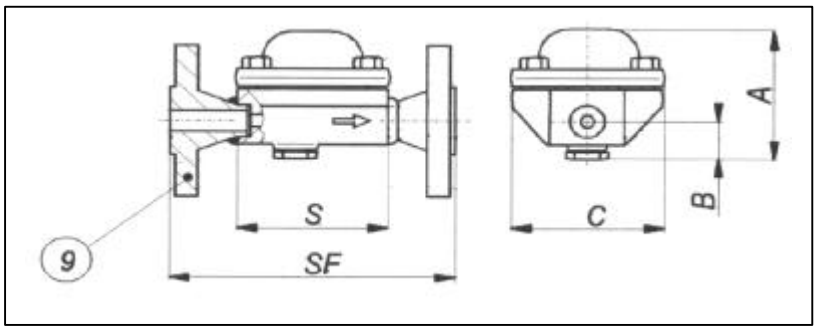
BIMETALLIC THERMOSTATIC STEAM TRAPS

BCS 40 F316



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A182 F316	
2	Cover	ASTM A182 F316	
3	Gasket	316 / GRAPHITE	X
4	Valve assembly	STAINLESS STEEL	X
5	Screen	AISI 304	X
6	Gasket	316 / GRAPHITE	X
7	Strainer cap	ASTM A182 F316	
8	Bolts	ASTM A193 B8	
9	Flange	ASTM A182 F316	

Flanged												
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	100	129	35	135	7	166	8.5	160	8.2	180	8.5	190	9
¾"	100	129	35	135	7	170	8.5	170	8.2	190	8.5	200	9
1"	120	129	35	135	7	190	10	200	10.2	210	10.7	230	12
1½""	160	181	52	180	15	240	16.1	250	16	260	16.5	280	17
2"	160	181	52	180	15	246	18	250	20	260	21	280	23



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. Before welding a SW trap, remove element (4). This operation can be avoided by using arc electrod welding. For installation with superheated steam, please conctact our Technical Departement

HOW TO SERVICE

By installing a new element assemly you can bring the BC steam trap to the "as new from factory" condition. Unscrew the bolts (8) and remove cover (2) and gasket (3). Unscrew and remove the element (4). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (3) and reinstall cover (2) tightening the bolts (8). To service the strainer, unscrew cap (7), withdraw screen (5) and clean or replace it. Screwing the cap back in place, always fit a new gasket (6). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

How to order: i.e. *BCS 20 F316 1" 150 RF*

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OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BE 8

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

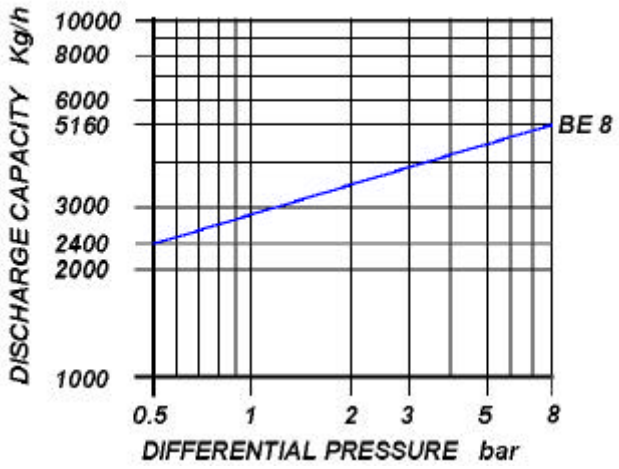
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

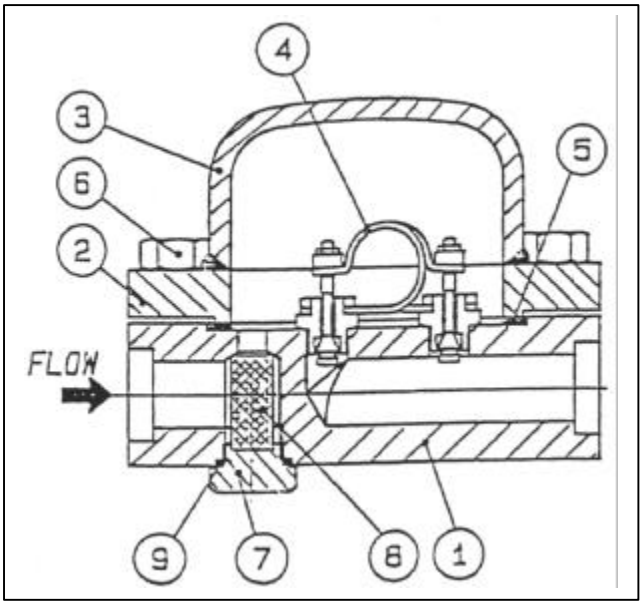
SIZES
1½" – 2"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 800
PMA: Max allowable pressure	136 bar
TMA: max allowable temperature	390°C
PMO: max working pressure (BE 8)	8 bar
TMO: max working temperature (BE 8)	250°C

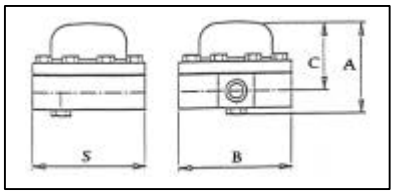
BIMETALLIC THERMOSTATIC STEAM TRAPS

BE 8



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A105	
2	Cover flange	ASTM A105	
3	Cover	ASTM A106 WPB	
4	Valve assembly N.2	STAINLESS STEEL	X
5	Gasket	316 / GRAPHITE	X
6	Bolts	ASTM A193 B7	
7	Strainer cap	ASTM A105	
8	Screen	AISI 304	X
9	Gasket	316 / GRAPHITE	X

Size (inches)	S	A	B	C
1½""	248.5	205	260	155
2"	248.5	205	260	155



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 BE steam trap to the "as new from factory" condition. Unscrew the bolts (6) and remove cover (3) and gasket (5). Unscrew and remvoe the element (4). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (5) and reinstall cover (3) tightening the bolts (6). To service the strainer, unscrew cap (7), withdraw screen (8) and clean or replace it. Screwing the cap back in place, always fit a new gasket (9). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

How to order: i.e. *BE 8 2" NPT*

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

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DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BE 20

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

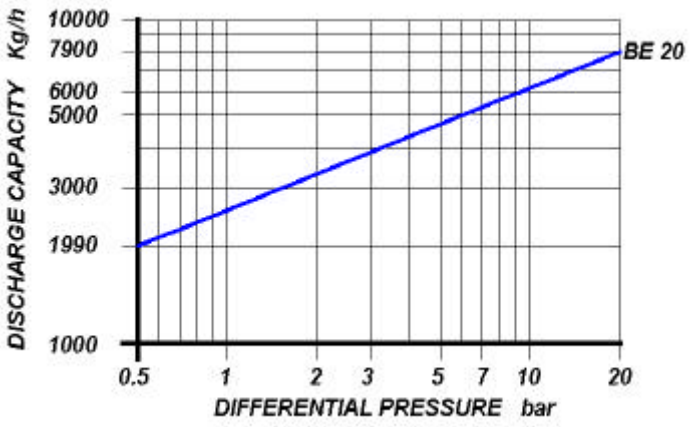
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

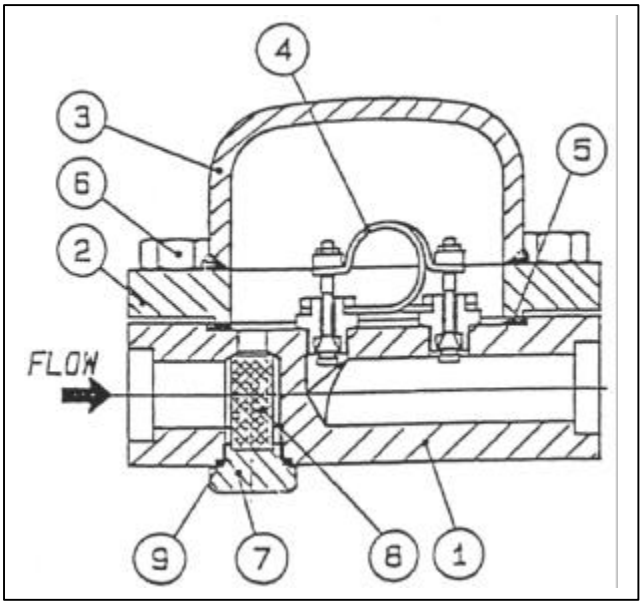
SIZES
1½" – 2"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 800
PMA: Max allowable pressure	136 bar
TMA: max allowable temperature	390°C
PMO: max working pressure (BE 20)	20 bar
TMO: max working temperature (BE 20)	275°C

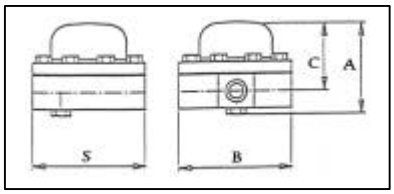
BIMETALLIC THERMOSTATIC STEAM TRAPS

BE 20



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A105	
2	Cover flange	ASTM A105	
3	Cover	ASTM A106 WPB	
4	Valve assembly N.2	STAINLESS STEEL	X
5	Gasket	316 / GRAPHITE	X
6	Bolts	ASTM A193 B7	
7	Strainer cap	ASTM A105	
8	Screen	AISI 304	X
9	Gasket	316 / GRAPHITE	X

Size (inches)	S	A	B	C
1½""	248.5	205	260	155
2"	248.5	205	260	155



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 BE steam trap to the "as new from factory" condition. Unscrew the bolts (6) and remove cover (3) and gasket (5). Unscrew and remove the element (4). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (5) and reinstall cover (3) tightening the bolts (6). To service the strainer, unscrew cap (7), withdraw screen (8) and clean or replace it. Screwing the cap back in place, always fit a new gasket (9). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

How to order: i.e. *BE 20 2" NPT*

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DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BE 30

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

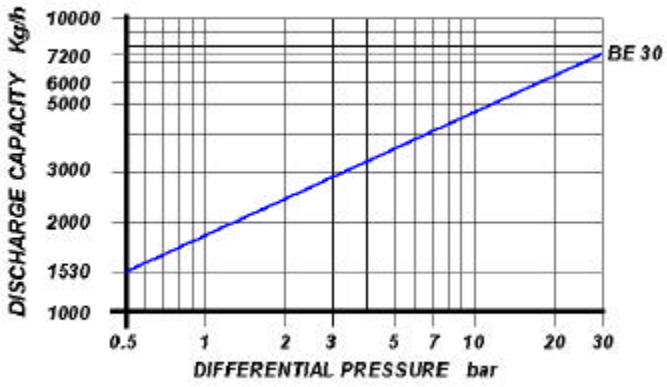
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

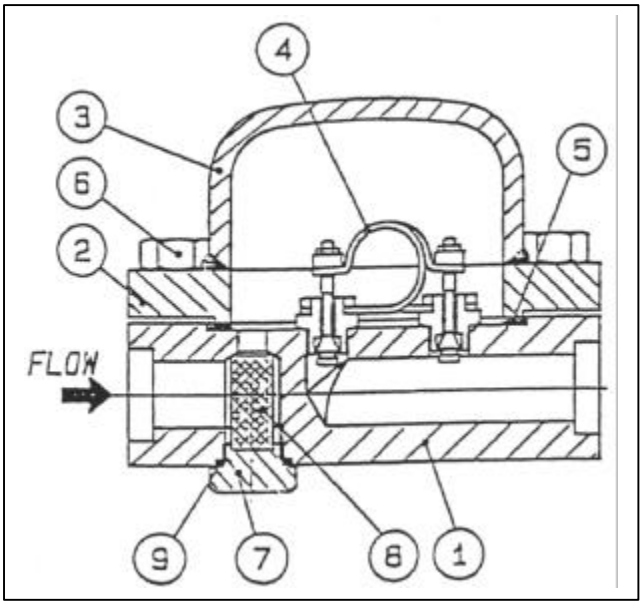
SIZES
1½" – 2"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 800
PMA: Max allowable pressure	136 bar
TMA: max allowable temperature	390°C
PMO: max working pressure (BE 30)	30 bar
TMO: max working temperature (BE 30)	300°C

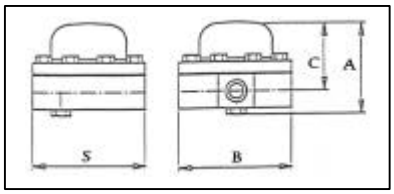
BIMETALLIC THERMOSTATIC STEAM TRAPS

BE 30



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A105	
2	Cover flange	ASTM A105	
3	Cover	ASTM A106 WPB	
4	Valve assembly N.2	STAINLESS STEEL	X
5	Gasket	316 / GRAPHITE	X
6	Bolts	ASTM A193 B7	
7	Strainer cap	ASTM A105	
8	Screen	AISI 304	X
9	Gasket	316 / GRAPHITE	X

Size (inches)	S	A	B	C
1½""	248.5	205	260	155
2"	248.5	205	260	155



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 BE steam trap to the "as new from factory" condition. Unscrew the bolts (6) and remove cover (3) and gasket (5). Unscrew and remove the element (4). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (5) and reinstall cover (3) tightening the bolts (6). To service the strainer, unscrew cap (7), withdraw screen (8) and clean or replace it. Screwing the cap back in place, always fit a new gasket (9). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

How to order: i.e. *BE 30 2" NPT*

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DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

BE 40

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

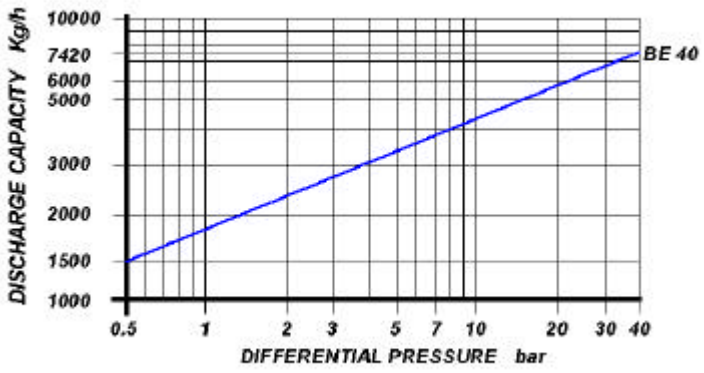
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

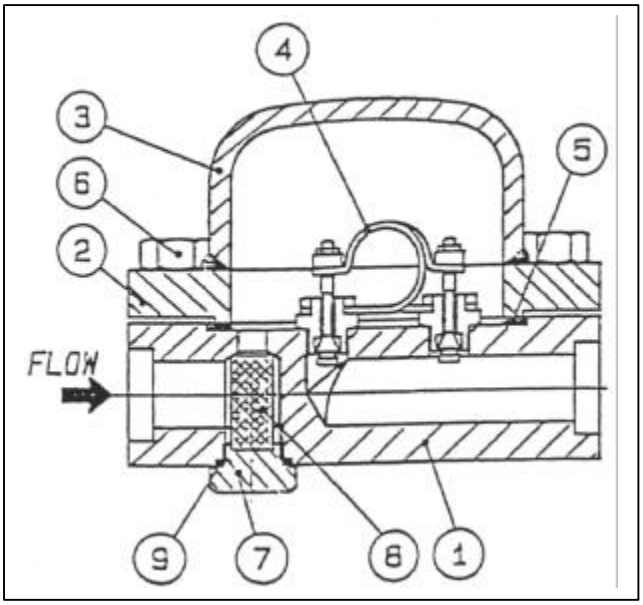
SIZES
1½" – 2"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 800
PMA: Max allowable pressure	136 bar
TMA: max allowable temperature	390°C
PMO: max working pressure (BE 40)	40 bar
TMO: max working temperature (BE 40)	300°C

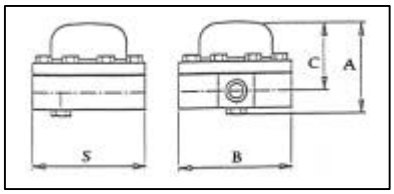
BIMETALLIC THERMOSTATIC STEAM TRAPS

BE 40



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A105	
2	Cover flange	ASTM A105	
3	Cover	ASTM A106 WPB	
4	Valve assembly N.2	STAINLESS STEEL	X
5	Gasket	316 / GRAPHITE	X
6	Bolts	ASTM A193 B7	
7	Strainer cap	ASTM A105	
8	Screen	AISI 304	X
9	Gasket	316 / GRAPHITE	X

Size (inches)	S	A	B	C
1½""	248.5	205	260	155
2"	248.5	205	260	155



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 BE steam trap to the "as new from factory" condition. Unscrew the bolts (6) and remove cover (3) and gasket (5). Unscrew and remove the element (4). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (5) and reinstall cover (3) tightening the bolts (6). To service the strainer, unscrew cap (7), withdraw screen (8) and clean or replace it. Screwing the cap back in place, always fit a new gasket (9). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

How to order: i.e. *BE 40 2" NPT*

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DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS

MP

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

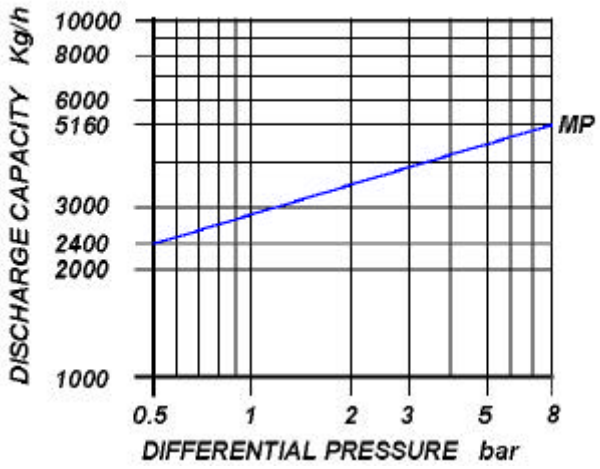
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

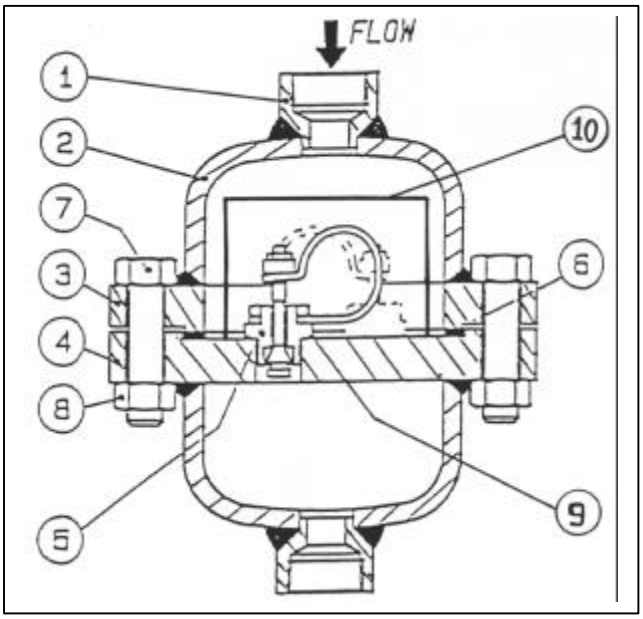
SIZES
1½" – 2"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 800
PMA: Max allowable pressure	136 bar
TMA: max allowable temperature	390°C
PMO: max working pressure (MP 8)	8 bar
TMO: max working temperature (MP 8)	250°C
NB: MP model are available for differential pressure up to 40 bar, size up to 8" for high capacity. Please contact our technical departement.	

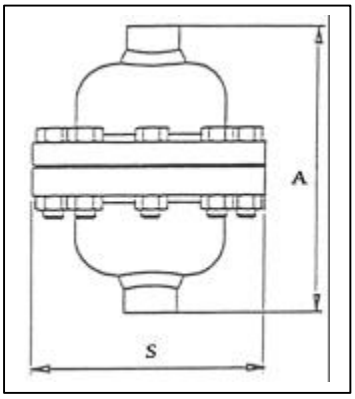
BIMETALLIC THERMOSTATIC STEAM TRAPS

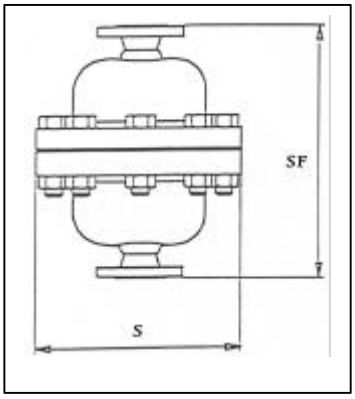
MP



POS.	DESCRIPTION	MATERIALS	SPARES
1	Connections	ASTM A105	
2	Caps	ASTM A106 WPB	
3	Flange	ASTM A105	
4	Flange	ASTM A105	
5	Valve assembly N° 2	STAILESS STEEL	X
6	Gasket	316 / GRAPHITE	X
7	Bolts	ASTM A193 B7	
8	Nuts	ASTM A194 2H	
9	Gasket	S.S 304	X
10	Screen	AISI 304	X

Flanged											
Size (inches)	S	A	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
				SF	Kg	SF	Kg	SF	Kg	SF	Kg
1½""	260	315	34	350	40	350	40	350	40	350	40
2"	260	315	38	350	44	350	44	350	44	350	44





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 MP steam trap to the "as new from factory" condition. Unscrew the bolts (7) and remove cover (2), remove gasket (6) and screen (10). Unscrew and remove the element (5). Clean the inside of the trap and screw in the element-gasket assembly, clean screen (10). Fit a new gasket (6), fit screen (10) and reinstall cover (2) tightening the bolts (7). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

How to order: i.e. *MP 8 2" 150 RF*

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

BIMETALLIC THERMOSTATIC STEAM TRAPS
MF 8

BIMETALLIC THERMOSTATIC

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.

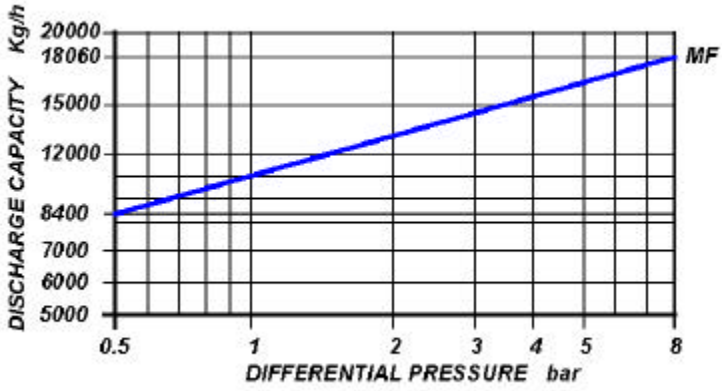
MAIN FEATURES

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

APPLICATIONS

- *Tracing lines*
- *Marine applications*
- *Turbines*
- *Steam mains*
- *Tanks*

DISCHARGE CAPACITY



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

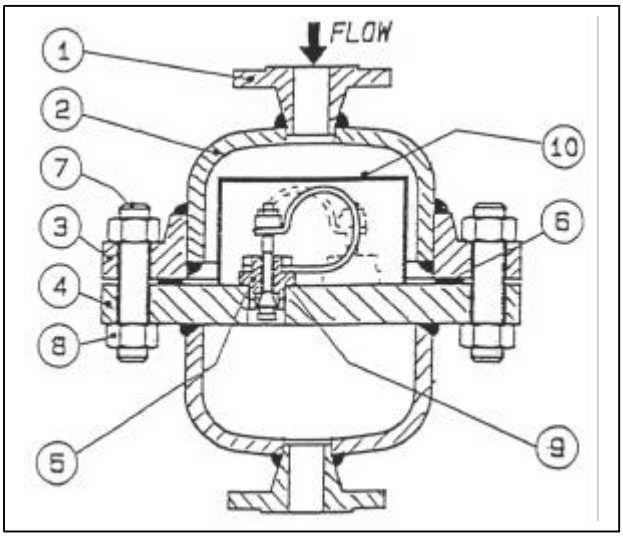
SIZES
4”

CONNECTIONS	
FLANGED	*ANSI 150#/300#/600#/UNI/DIN*

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	*ANSI 300*
PMA: Max allowable pressure	*50 bar*
TMA: max allowable temperature	*390°C*
PMO: max working pressure	*8 bar*
TMO: max working temperature	*250°C*
NB: MF model are available for differential pressure up to 40 bar, size up to 8” for high capacity. Please contact our technical departement.	

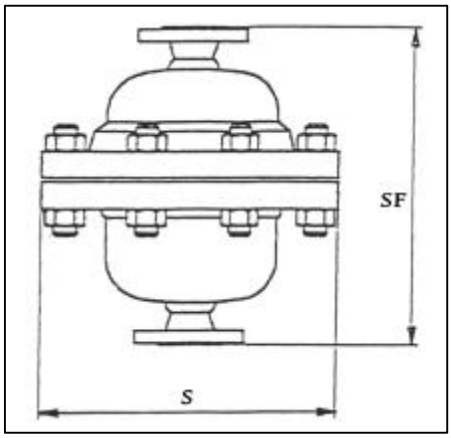
BIMETALLIC THERMOSTATIC STEAM TRAPS

MF 8



POS.	DESCRIPTION	MATERIALS	SPARES
1	Connections	ASTM A105	
2	Caps	ASTM A106 WPB	
3	Flange	ASTM A105	
4	Flange	ASTM A105	
5	Valve assembly N° 7	STAILESS STEEL	X
6	Gasket	316 / GRAPHITE	X
7	Bolts	ASTM A193 B7	
8	Nuts	ASTM A194 2H	
9	Gasket	S.S 304	X
10	Screen	AISI 304	X

Flanged											
Size (inches)	S	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
			SF	Kg	SF	Kg	SF	Kg	SF	Kg
4”	521	162	515	176	515	176	515	186	515	200



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 MF 8 steam trap to the “as new from factory” condition. Unscrew the bolts (7) and remove cover (2), remove gasket (6) and screen (10). Unscrew and remove the element (5). Clean the inside of the trap and screw in the element-gasket assembly, clean screen (10). Fit a new gasket (6), fit screen (10) and reinstall cover (2) tightening the bolts (7). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

How to order: i.e. *MF 8 4” 150 RF*

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

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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. .

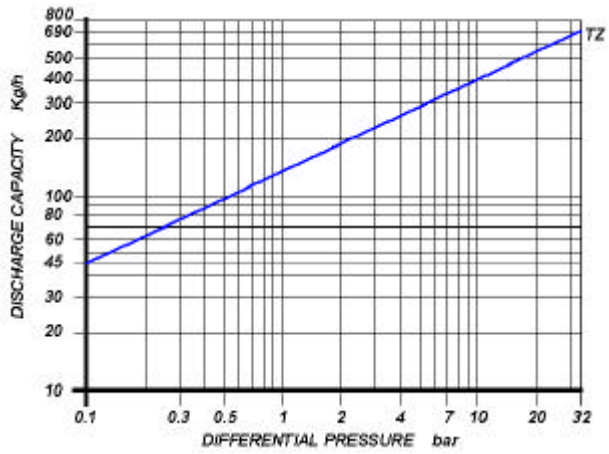
MAIN FEATURES

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

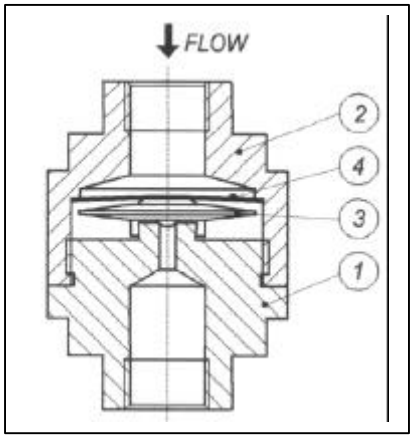
SIZES
3/8" - ½" – ¾" – 1"

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*

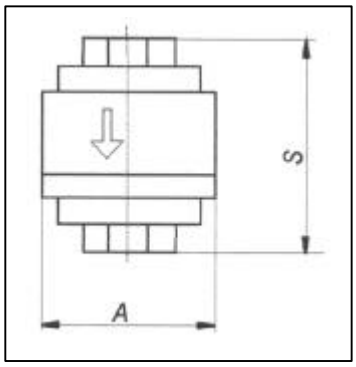
BALANCED PRESSURE THERMOSTATIC STEAM TRAPS

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*

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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. .

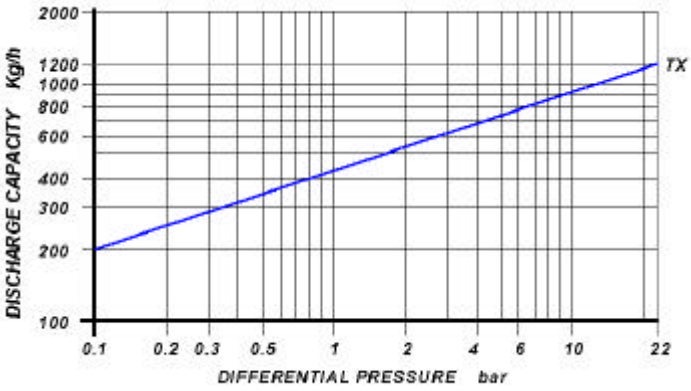
MAIN FEATURES

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

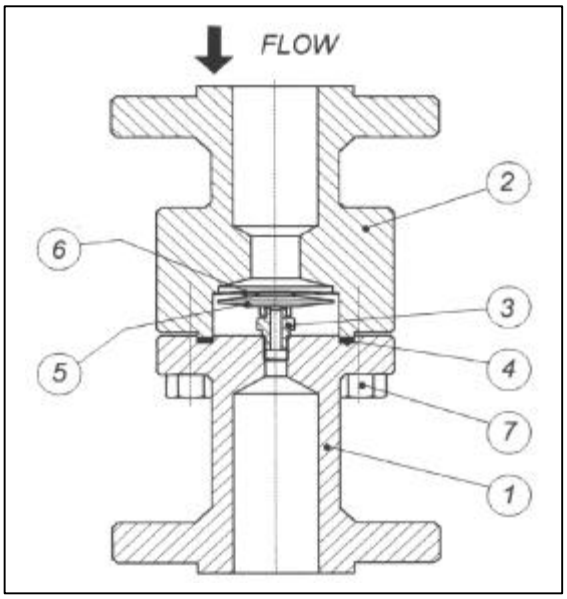
SIZES
½" – ¾"

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

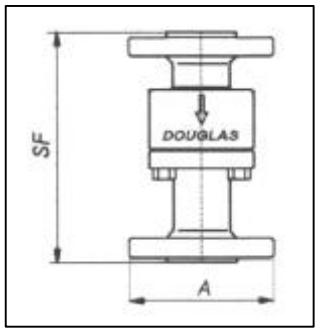
BALANCED PRESSURE THERMOSTATIC STEAM TRAPS

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*

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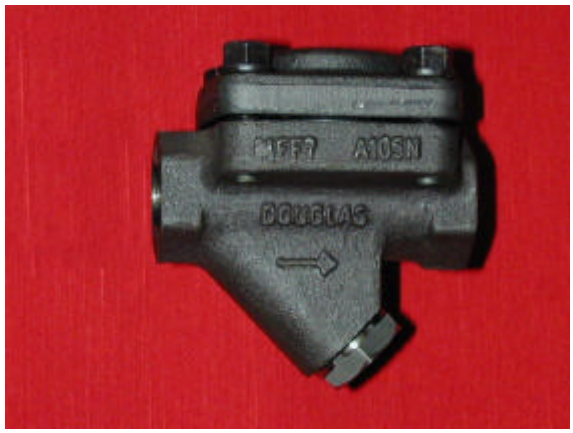
DOUGLAS ITALIA S.P.A.

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. .



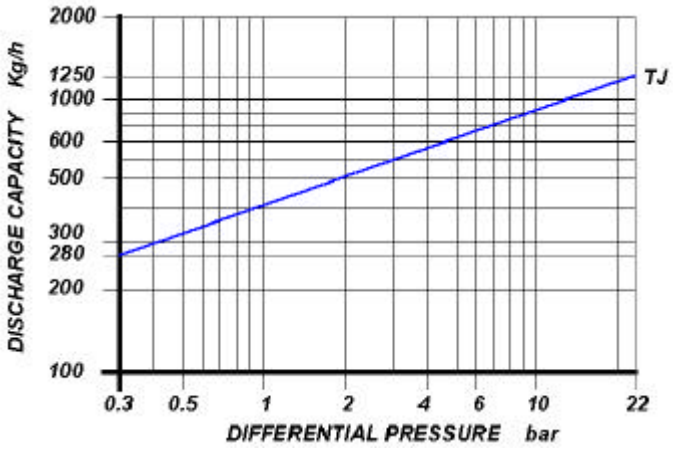
MAIN FEATURES

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

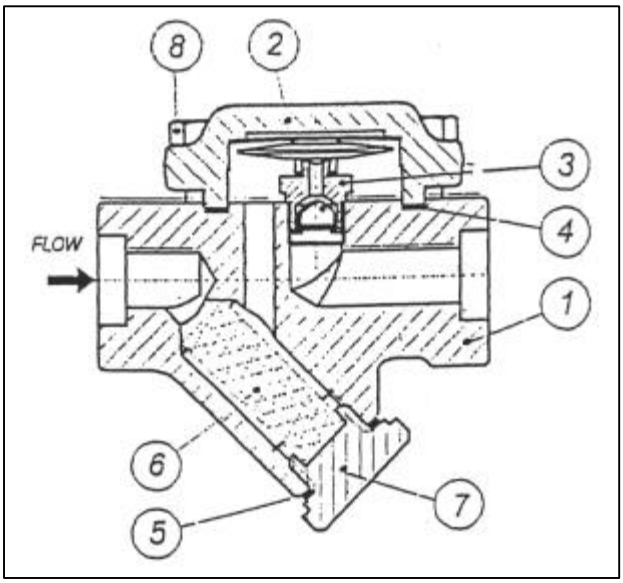
SIZES
½" – ¾" – 1"

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

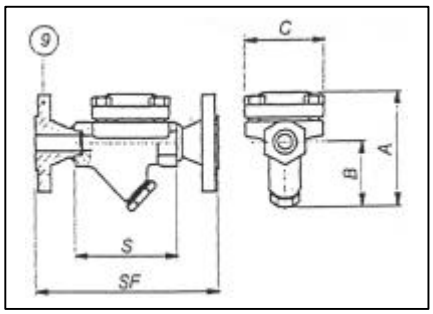


POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A 105	
2	Cover	ASTM A 105	
3	Seat / Capsule **	STAINLESS STEEL	X
3	Membrane	HASTELLOY	X
3	Check valve *	STAINLESS STEEL	X
4	Cover gasket	316 / GRAPHITE	X
5	Gasket	316 / GRAPHITE	X
6	Screen	AISI 304	X
7	Plug	ASTM A 105	
8	Bolt	ASTM 193 B 7	

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*

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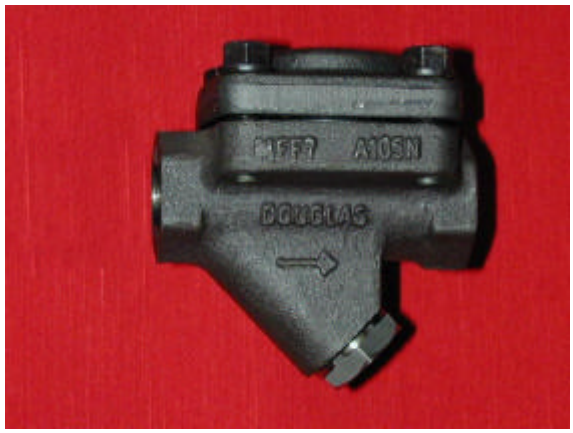
DOUGLAS ITALIA S.P.A.

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. .



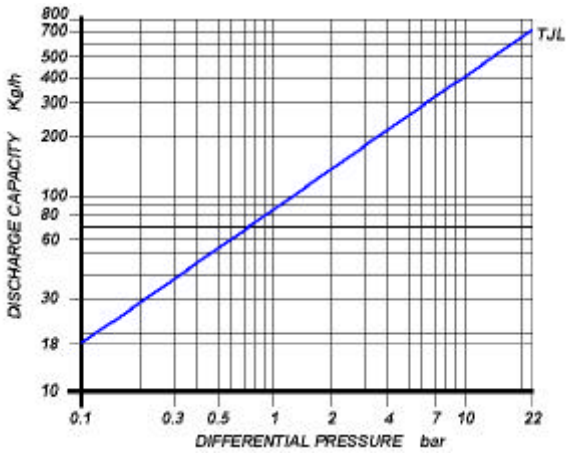
MAIN FEATURES

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



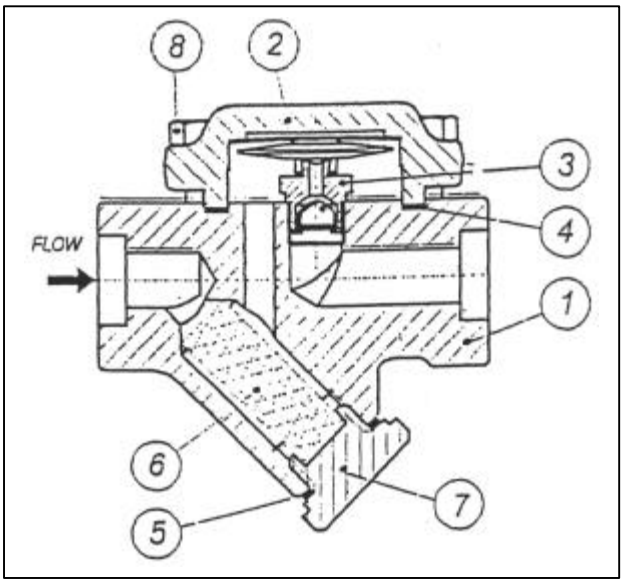
Cold water capacities are 2 to 4 times greater than the above .
Safety factor = 1.2 – 1.5

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

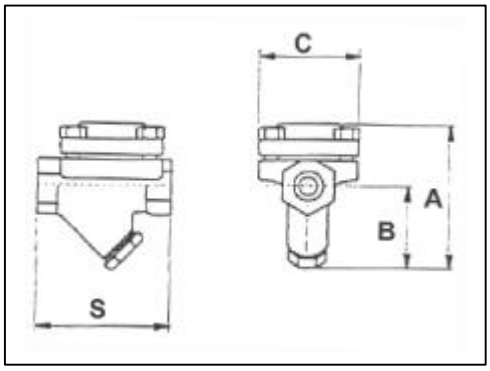


POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A 105	
2	Cover	ASTM A 105	
3	Seat / Capsule **	STAINLESS STEEL	X
3	Membrane	HASTELLOY	X
3	Check valve *	STAINLESS STEEL	X
4	Cover gasket	316 / GRAPHITE	X
5	Gasket	316 / GRAPHITE	X
6	Screen	AISI 304	X
7	Plug	ASTM A 105	
8	Bolt	ASTM 193 B 7	

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*

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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. .

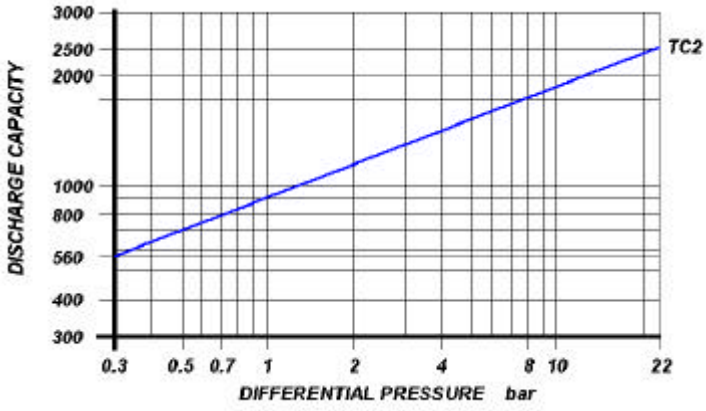
MAIN FEATURES

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

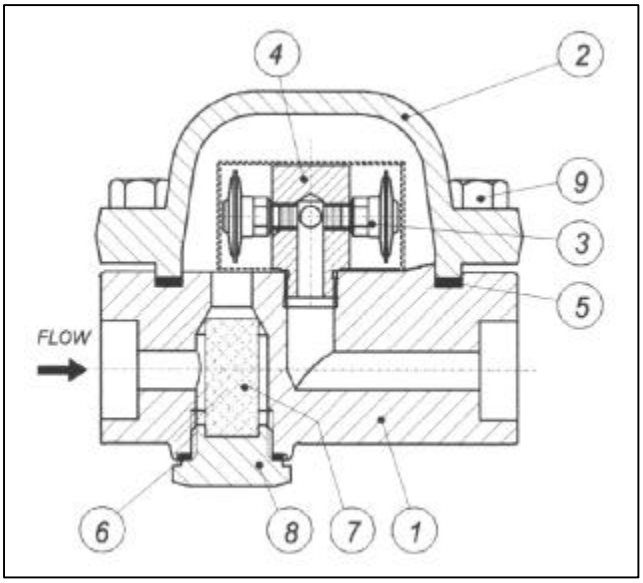
SIZES
½" – ¾" – 1"

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

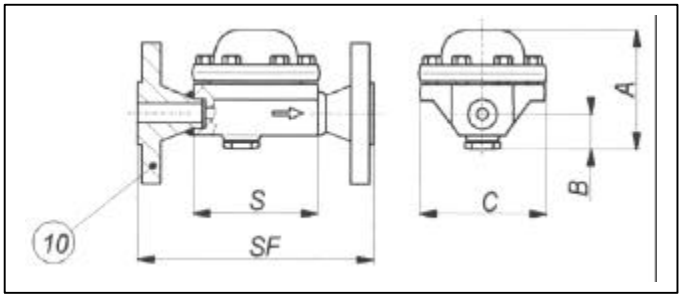
TC 2



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*

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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. .

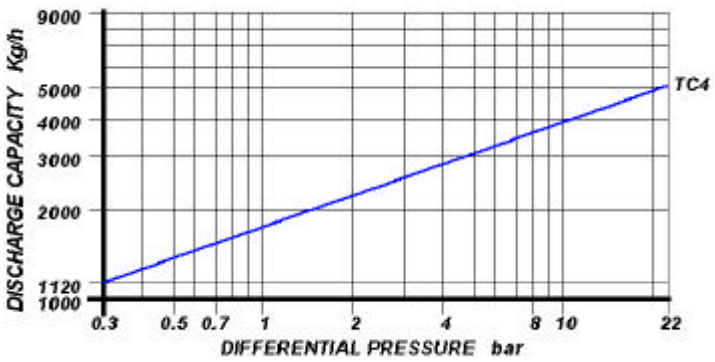
MAIN FEATURES

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

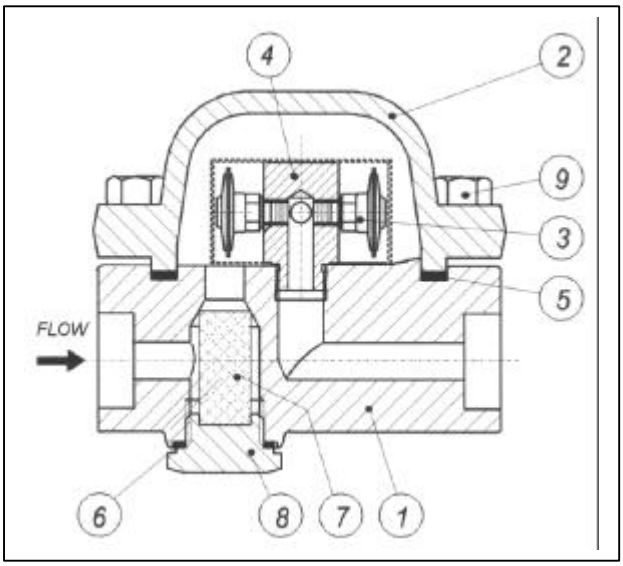
SIZES
½" – ¾" – 1"

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

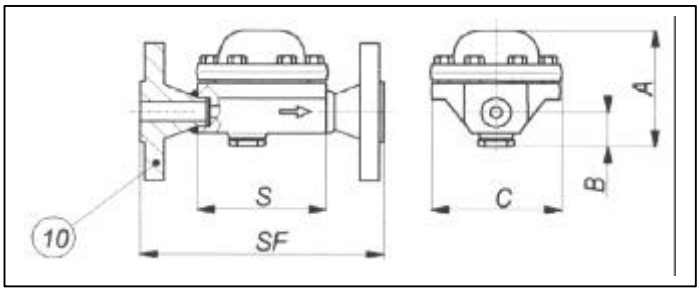
TC 4



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*

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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. .

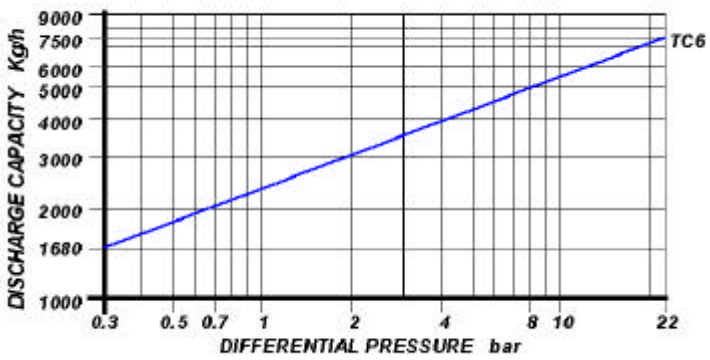
MAIN FEATURES

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

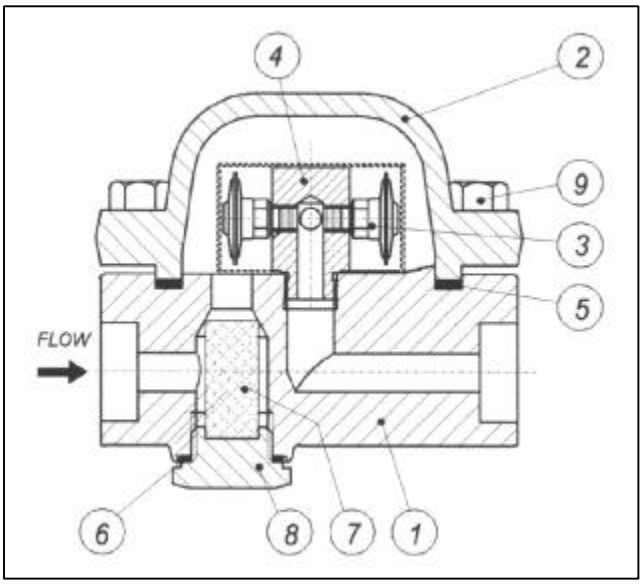
SIZES
2"

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

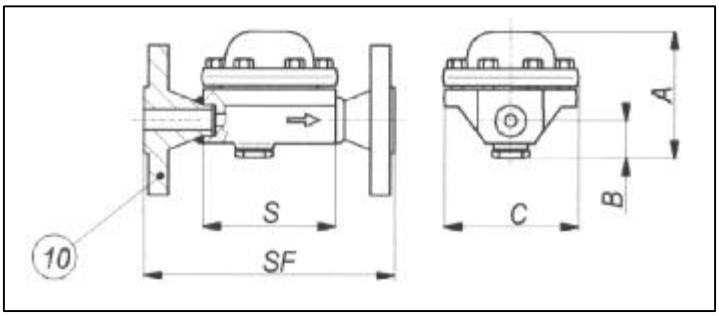
TC 6



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*

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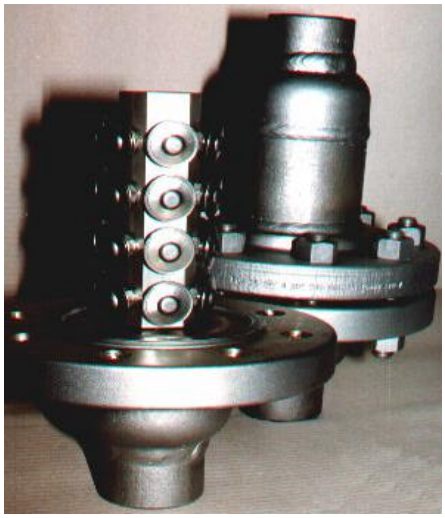
DOUGLAS ITALIA S.P.A.

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. .



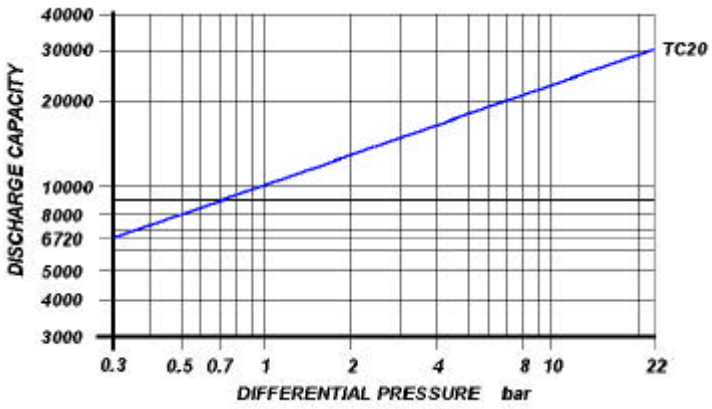
MAIN FEATURES

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

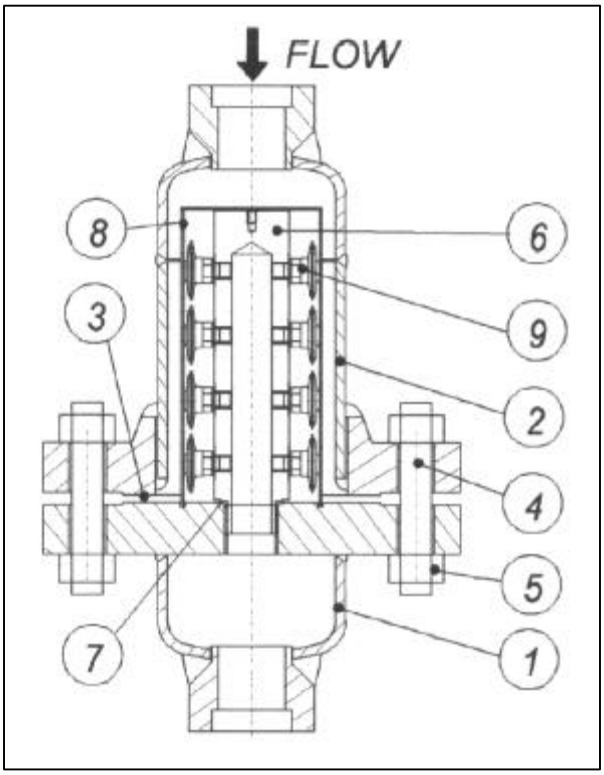
SIZES
1½"

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

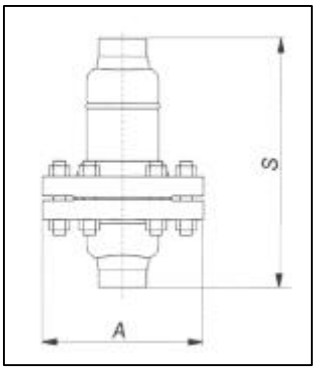
TC 20



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*

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DOUGLAS ITALIA

INVERTED BUCKET STEAM TRAPS

- IQ
- IR
- IT
- IA A105
- IA F304
- IB A105
- IB F304
- IK
- IF 304
- IFS
- IDD A105
- IED
- IDD F11
- IDH

GO BACK

DOUGLAS ITALIA S.P.A.

INVERTED BUCKET STEAM TRAPS

IO

INVERTED BUCKET

This trap uses an inverted bucket that floats whean steam is present and sinks when condensate exceeds a predetermined liquid level.When the bucket floats the valve – at the top of the trap – is closed . When it sinks the valve will open. On start up the bucket is down end the valve is wide open , when condensate and air enters the trap it flows directly into the bucket…The condensate falls into the trap body whereas air collects at the top of the bucket and causes it to float thereby closing the valve. Air is released through a vent at the top of the bucket and collects in the top of the trap until the bucket sinks opening the valve and allows the discharge of air and condensate. When steam is formed , it collects in the top of the bucket causing it to float thereby closing the valve. The bucket will sink again when condensate reaches the predeterminated level and the cycle starts over.

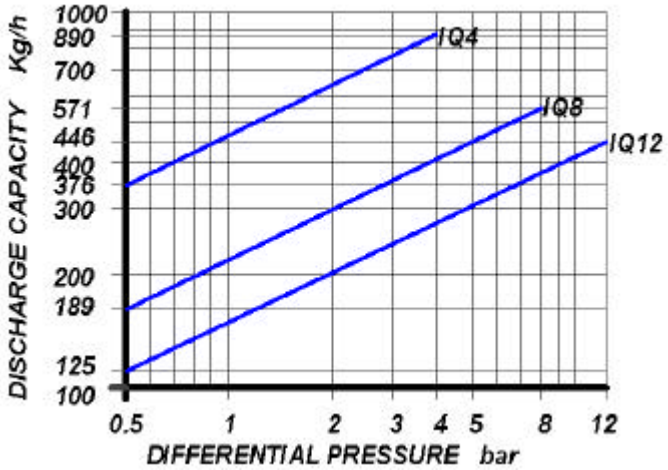
MAIN FEATURES

Discharge of condensate at steam temperature. Simple and reliable construction. Slow discharge of air. Suitable for superheated steam. It whith stands waterhammer.

APPLICATIONS

- *Heater batteries*
- *Heat exchangers*
- *Pans*
- *Turbines*
- *Drying cilinders*
- *Ironing machines*

DISCHARGE CAPACITY



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

SIZES

½" – ¾"

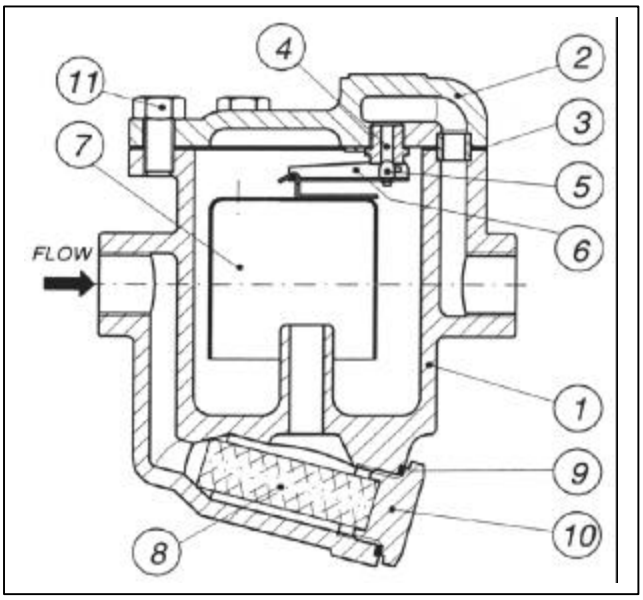
CONNECTIONS

Screwed	*BS 21 (BSP) /ANSI B1.20.1 (NPT)*
Flanged (ON REQUEST)	*ANSI B 16.5 / UNI / DIN*

LIMITING CONDITIONS (according to ISO 6552)

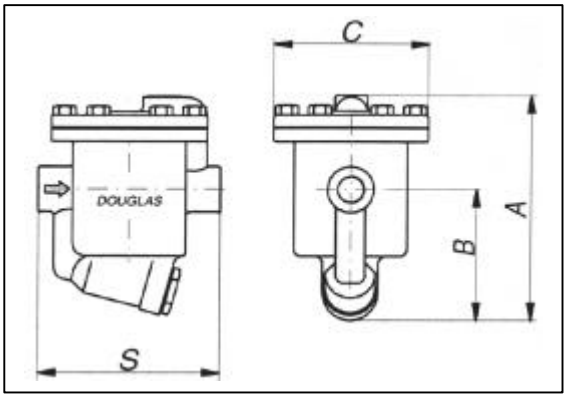
Steam Trap rating	*DIN PN 16*
PMA: Max allowable pressure	*16 bar*
TMA: max allowable temperature	*300°C*
PMO: max working pressure	*12 bar*
TMO: max working temperature	*230°C*
Max. Differential pressure (IQ 4)	*4 bar*
Max. Differential pressure (IQ 8)	*8 bar*
Max. Differential pressure (IQ 12)	*12 bar*

INVERTED BUCKET STEAM TRAPS
IQ



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	GG 25	
2	Cover	GG 25	
3	Gasket	CAF	X
4	Seat	AISI 410	X
5	Valve	AISI 410	X
6	Lever	AISI 304	X
7	Bucket	AISI 304	X
8	Screen	AISI 304	X
9	Gasket	316 / GRAPHITE	X
10	Plug	ASTM A 105	
11	Bolts	B 7	

Size (inches)	S	A	B	C	Weight (Kg)
½"	130	193	109	96	3.9
¾"	130	193	109	96	3.9



INSTALLATION

The trap must be installed with the body upright so that the bucket rises and falls vertically. The inlet and outlet connections must be in a horizontal position, with the trap installed below the drain point in order to form and preservate the internal water seal.

HOW TO SERVICE

Remove cover (2) by undoing bolts (11) un hook the bucket (7) from the valve lever (6) unscrew the seat (4) from the cover (2) screw in the new one, hooking the bucket back (7). To service the strainer, unscrew cap (10), withdraw screen (8) and clean or replace it. Screwing the cap back in place, always fit a new gasket (9).

How to order: i.e. *IQ 4 ¾" BSP*

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DOUGLAS ITALIA S.P.A.

INVERTED BUCKET STEAM TRAPS
IR

INVERTED BUCKET

This trap uses an inverted bucket that floats whean steam is present and sinks when condensate exceeds a predetermined liquid level.When the bucket floats the valve – at the top of the trap – is closed . When it sinks the valve will open. On start up the bucket is down end the valve is wide open , when condensate and air enters the trap it flows directly into the bucket…The condensate falls into the trap body whereas air collects at the top of the bucket and causes it to float thereby closing the valve. Air is released through a vent at the top of the bucket and collects in the top of the trap until the bucket sinks opening the valve and allows the discharge of air and condensate. When steam is formed , it collects in the top of the bucket causing it to float thereby closing the valve. The bucket will sink again when condensate reaches the predeterminated level and the cycle starts over.

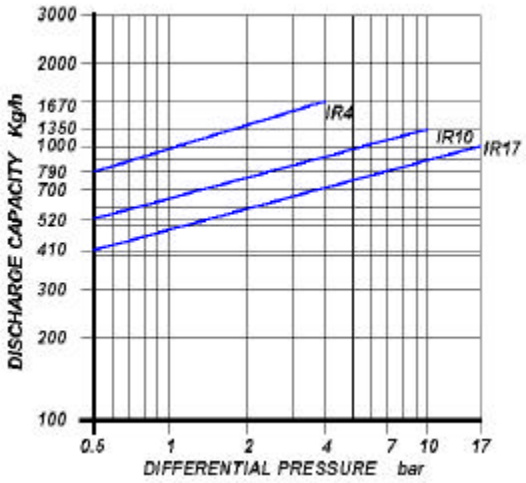
MAIN FEATURES

Discharge of condensate at steam temperature. Simple and reliable construction. Slow discharge of air. Suitable for superheated steam. It whith stands waterhammer.

APPLICATIONS

- *Heater batteries*
- *Heat exchangers*
- *Pans*
- *Turbines*
- *Drying cilinders*
- *Ironing machines*

DISCHARGE CAPACITY



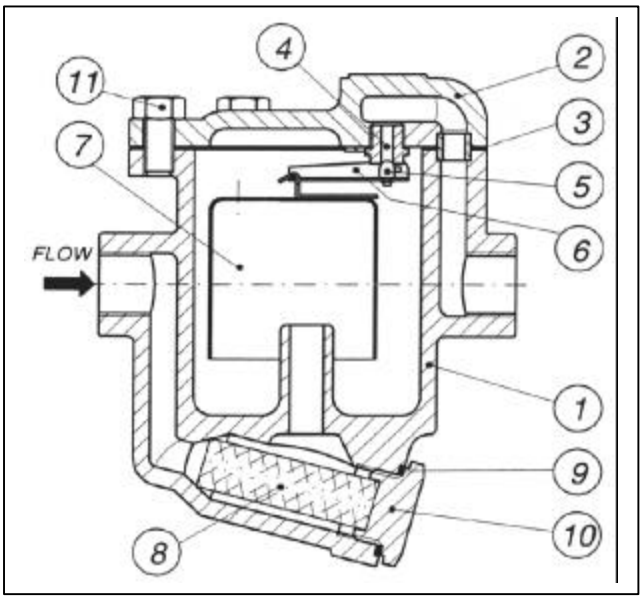
Cold water capacities are 2 to 4 times greater than the above . Safety factor = 1.2 – 1.5

SIZES
¾" – 1"

CONNECTIONS	
Screwed	BS 21 (BSP)
Flanged (ON REQUEST)	ANSI B 16.5 / UNI / DIN

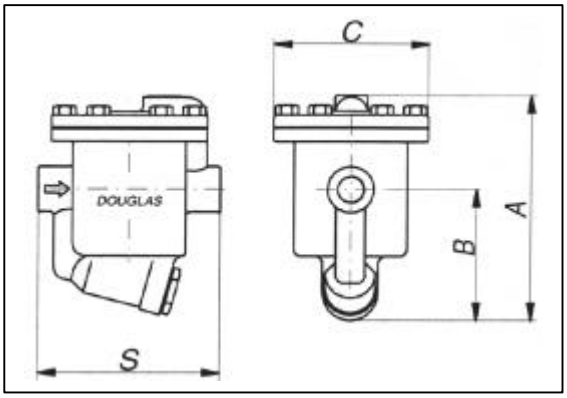
LIMITING CONDITIONS (according to ISO 6552)		
Steam Trap rating		DIN PN 25
PMA: Max allowable pressure		25 bar
TMA: max allowable temperature		300°C
PMO: max working pressure		17 bar
TMO: max working temperature		250°C
Max. Differential pressure	(IR 4)	4 bar
Max. Differential pressure	(IR 10)	10 bar
Max. Differential pressure	(IR 17)	17 bar

INVERTED BUCKET STEAM TRAPS
IR



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	GGG40 (DIN 1693)	
2	Cover	GGG40 (DIN 1693	
3	Gasket	CAF	X
4	Seat	AISI 410	X
5	Valve	AISI 410	X
6	Lever	AISI 304	X
7	Bucket	AISI 304	X
8	Screen	AISI 304	X
9	Gasket	316 / GRAPHITE	X
10	Plug	ASTM A 105	
11	Bolts	8.8 (UNI 3704-74)	

Size (inches)	S	A	B	C	Weight (Kg)
¾"	175	219	127	150	9
1"	175	219	127	150	9



INSTALLATION

The trap must be installed with the body upright so that the bucket rises and falls vertically. The inlet and outlet connections must be in a horizontal position, with the trap installed below the drain point in order to form and preservate the internal water seal.

HOW TO SERVICE

Remove cover (2) by undoing bolts (11) un hook the bucket (7) from the valve lever (6) unscrew the seat (4) from the cover (2) screw in the new one, hooking the bucket back (7). To service the strainer, unscrew cap (10), withdraw screen (8) and clean or replace it. Screwing the cap back in place, always fit a new gasket (9).

How to order: i.e. *IR 10 1" BSP*

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DOUGLAS ITALIA S.P.A.

INVERTED BUCKET STEAM TRAPS
IT

INVERTED BUCKET

This trap uses an inverted bucket that floats whean steam is present and sinks when condensate exceeds a predetermined liquid level.When the bucket floats the valve – at the top of the trap – is closed . When it sinks the valve will open. On start up the bucket is down end the valve is wide open , when condensate and air enters the trap it flows directly into the bucket…The condensate falls into the trap body whereas air collects at the top of the bucket and causes it to float thereby closing the valve. Air is released through a vent at the top of the bucket and collects in the top of the trap until the bucket sinks opening the valve and allows the discharge of air and condensate. When steam is formed , it collects in the top of the bucket causing it to float thereby closing the valve. The bucket will sink again when condensate reaches the predeterminated level and the cycle starts over.

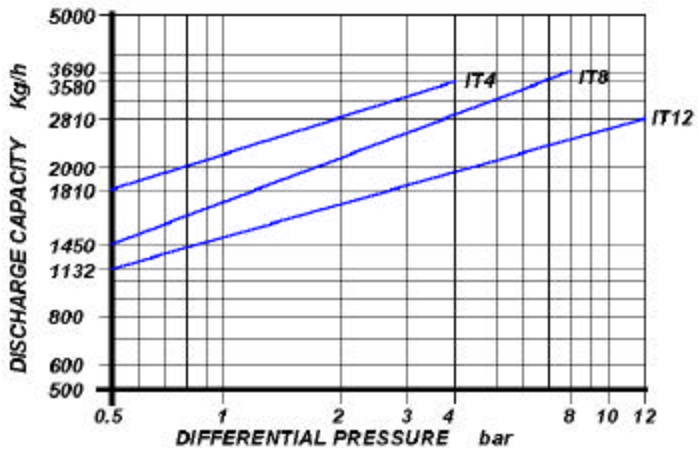
MAIN FEATURES

Discharge of condensate at steam temperature. Simple and reliable construction. Slow discharge of air. Suitable for superheated steam. It whith stands waterhammer.

APPLICATIONS

- *Heater batteries*
- *Heat exchangers*
- *Pans*
- *Turbines*
- *Drying cilinders*
- *Ironing machines*

DISCHARGE CAPACITY



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

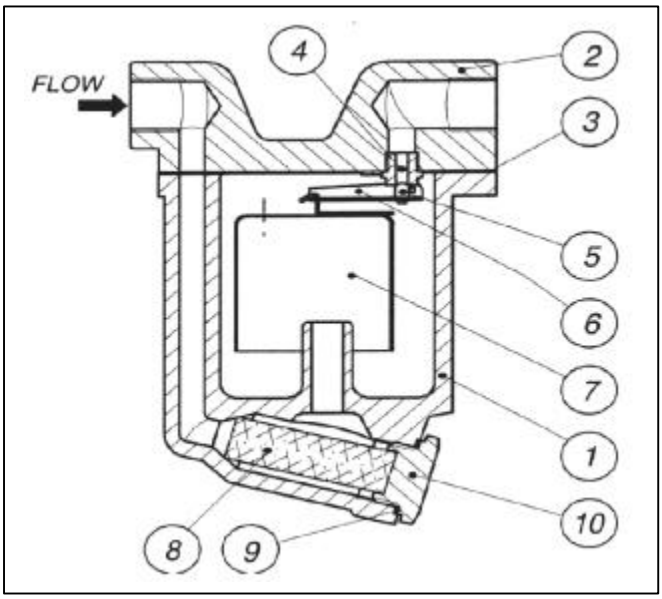
SIZES
1 ½"

CONNECTIONS	
Screwed	*BS 21 (BSP)*
Flanged (ON REQUEST)	*ANSI B 16.5 / UNI / DIN*

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	*DIN PN 16*
PMA: Max allowable pressure	*16 bar*
TMA: max allowable temperature	*250°C*
PMO: max working pressure	*12 bar*
TMO: max working temperature	*230°C*
Max. Differential pressure (IT 4)	*4 bar*
Max. Differential pressure (IT 8)	*8 bar*
Max. Differential pressure (IT 12)	*12 bar*

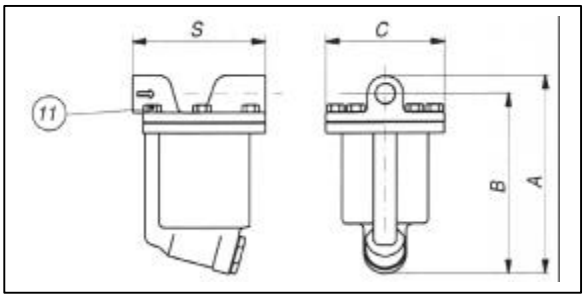
INVERTED BUCKET STEAM TRAPS

IT



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	G 25 (UNI 5007)	
2	Cover	G 25 (UNI 5007)	
3	Gasket	GRAPHITE	X
4	Seat	AISI 304	X
5	Valve	AISI 420	X
6	Lever	AISI 304	X
7	Bucket	AISI 304	X
8	Screen	AISI 304	X
9	Gasket	GRAPHITE	X
10	Plug	FE50 (UNI 5332)	
11	Bolts	8 G	

Size (inches)	S	A	B	C	Weight (Kg)
1 ½"	224	379	344	185	23



INSTALLATION

The trap must be installed with the body upright so that the bucket rises and falls vertically. The inlet and outlet connections must be in a horizontal position, with the trap installed below the drain point in order to form and preservate the internal water seal.

HOW TO SERVICE

Remove cover (2) by undoing bolts (11) un hook the bucket (7) from the valve lever (6) unscrew the seat (4) from the cover (2) screw in the new one, hooking the bucket back (7). To service the strainer, unscrew cap (10), withdraw screen (8) and clean or replace it. Screwing the cap back in place, always fit a new gasket (9).

How to order: i.e. *IT 8 1 ½" BSP*

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DOUGLAS ITALIA S.P.A.

INVERTED BUCKET STEAM TRAPS
IA A105

INVERTED BUCKET

This trap uses an inverted bucket that floats whean steam is present and sinks when condensate exceeds a predetermined liquid level.When the bucket floats the valve – at the top of the trap – is closed . When it sinks the valve will open. On start up the bucket is down end the valve is wide open , when condensate and air enters the trap it flows directly into the bucket…The condensate falls into the trap body whereas air collects at the top of the bucket and causes it to float thereby closing the valve. Air is released through a vent at the top of the bucket and collects in the top of the trap until the bucket sinks opening the valve and allows the discharge of air and condensate. When steam is formed , it collects in the top of the bucket causing it to float thereby closing the valve. The bucket will sink again when condensate reaches the predeterminated level and the cycle starts over.

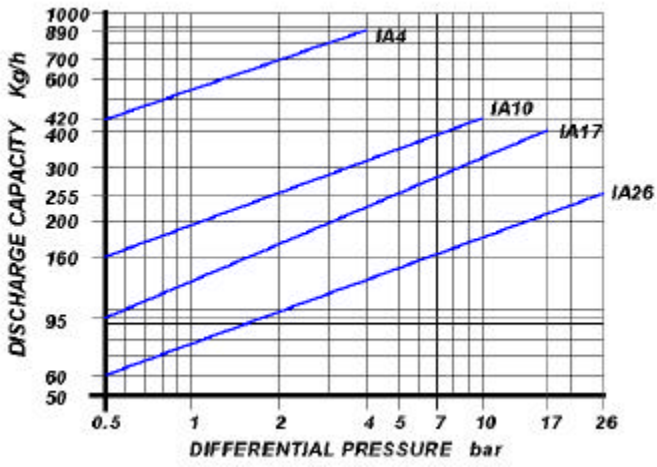
MAIN FEATURES

Discharge of condensate at steam temperature. Simple and reliable construction. Slow discharge of air. Suitable for superheated steam. It whith stands waterhammer.

APPLICATIONS

- *Heater batteries*
- *Heat exchangers*
- *Pans*
- *Turbines*
- *Drying cilinders*
- *Ironing machines*

DISCHARGE CAPACITY



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

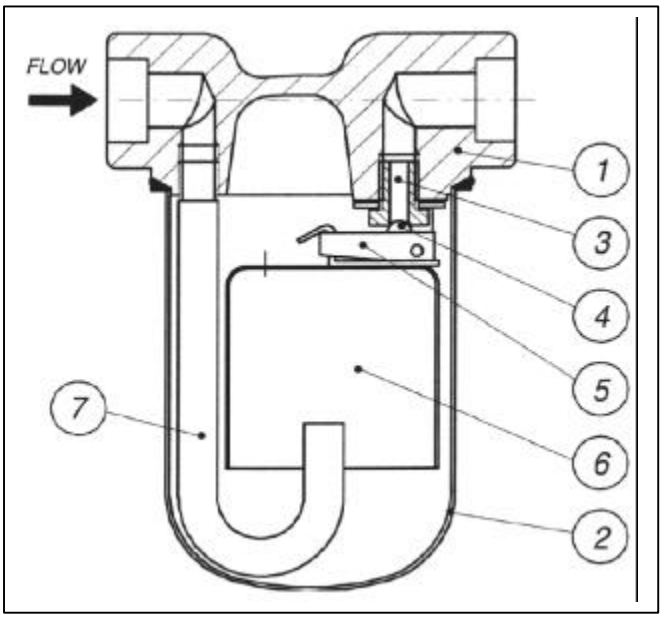
SIZES
½" – ¾" – 1"

CONNECTIONS	
Screwed	BS 21 (BSP) /ANSI B1.20.1 (NPT)
Socket weld	ANSI B 16.11
Flanged	ANSI 150#/300#/600#/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
PMO: max working pressure	26 bar
TMO: max working temperature	380°C
Max. Differential pressure (IA 4)	4 bar
Max. Differential pressure (IA 10)	10 bar
Max. Differential pressure (IA 17)	17 bar
Max. Differential pressure (IA 26)	26 bar

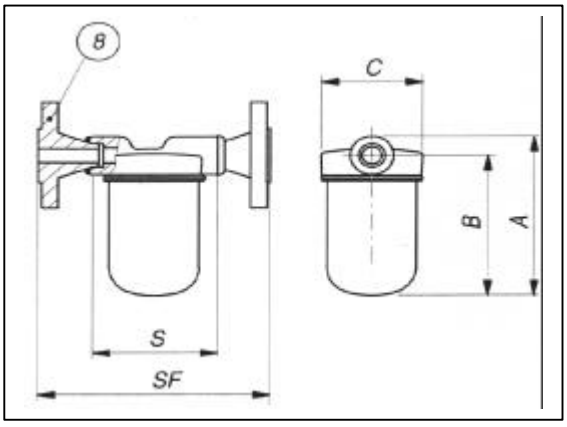
INVERTED BUCKET STEAM TRAPS

IA A105



POS.	DESCRIPTION	MATERIALS	SPARES
1	Cover	ASTM A105	
2	Body	AISI 304	
3	Seat	AISI 410	
4	Valve	AISI 410	
5	Lever	AISI 304	
6	Bucket	AISI 304	
7	Tube	AISI 304	
8	Flange	ASTM A105	

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	102	145	127	80	1.5	168	3.1	162	2.9	182	3.1	192	3.3
¾"	102	145	127	80	1.5	172	3.8	172	3.1	192	4.3	202	4.7
1"	164	145	127	80	1.8	182	4	214	3.5	226	4.6	239	5.1



INSTALLATION

The stream trap must always be fitted with connections in horizontal position and with the body below them. Thist type of trap cannot operate in any other position. The steam trap cannot operate without the initial and preservation of the internal water seal. For this reason the trap should be always fitted below the drain point. When this is not possible a check valve should be fitted at the trap inlet. This procedure is also advisable when operating with superheated steam. In some cases it may be necessary to fill the steam trap with water before steam is turned on.

How to order: i.e. *IA A105 10 ½" NPT*

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DOUGLAS ITALIA S.P.A.

INVERTED BUCKET STEAM TRAPS
IA F304

INVERTED BUCKET

This trap uses an inverted bucket that floats whean steam is present and sinks when condensate exceeds a predetermined liquid level.When the bucket floats the valve – at the top of the trap – is closed . When it sinks the valve will open. On start up the bucket is down end the valve is wide open , when condensate and air enters the trap it flows directly into the bucket…The condensate falls into the trap body whereas air collects at the top of the bucket and causes it to float thereby closing the valve. Air is released through a vent at the top of the bucket and collects in the top of the trap until the bucket sinks opening the valve and allows the discharge of air and condensate. When steam is formed , it collects in the top of the bucket causing it to float thereby closing the valve. The bucket will sink again when condensate reaches the predeterminated level and the cycle starts over.

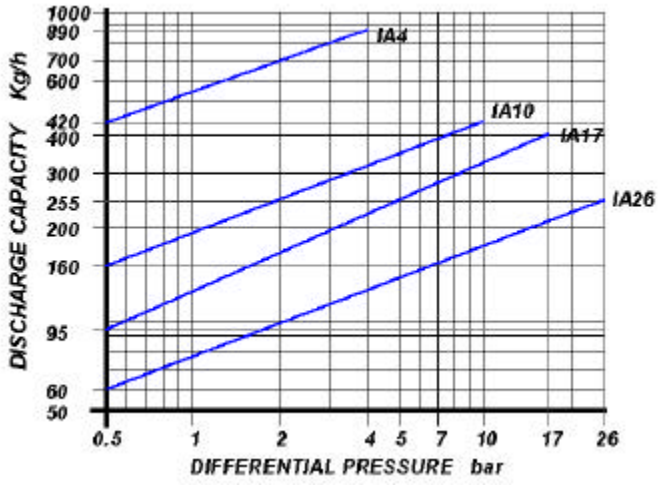
MAIN FEATURES

Discharge of condensate at steam temperature. Simple and reliable construction. Slow discharge of air. Suitable for superheated steam. It whith stands waterhammer.

APPLICATIONS

- *Heater batteries*
- *Heat exchangers*
- *Pans*
- *Turbines*
- *Drying cilinders*
- *Ironing machines*

DISCHARGE CAPACITY



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

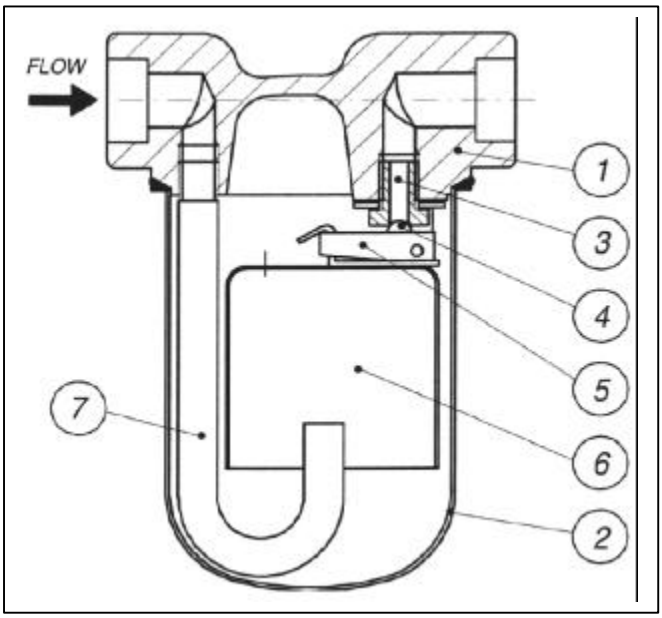
SIZES
½" – ¾" – 1"

CONNECTIONS	
Screwed	BS 21 (BSP) /ANSI B1.20.1 (NPT)
Socket weld	ANSI B 16.11
Flanged	ANSI 150#/300#/600#/UNI/DIN

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 300
PMA: Max allowable pressure	50 bar
TMA: max allowable temperature	500°C
PMO: max working pressure	26 bar
TMO: max working temperature	380°C
Max. Differential pressure (IA 4)	4 bar
Max. Differential pressure (IA 10)	10 bar
Max. Differential pressure (IA 17)	17 bar
Max. Differential pressure (IA 26)	26 bar

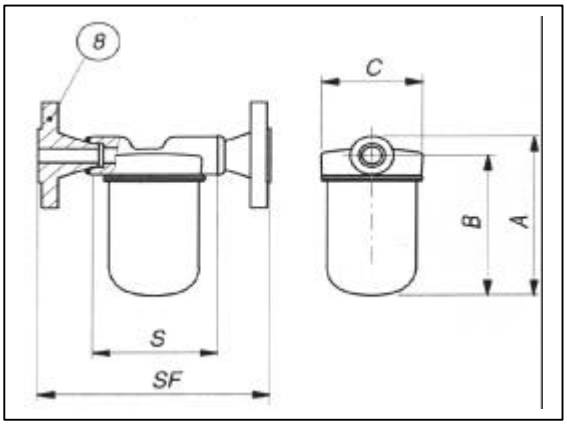
INVERTED BUCKET STEAM TRAPS

IA F304



POS.	DESCRIPTION	MATERIALS	SPARES
1	Cover	ASTM A182 F304	
2	Body	AISI 304	
3	Seat	AISI 410	
4	Valve	AISI 410	
5	Lever	AISI 304	
6	Bucket	AISI 304	
7	Tube	AISI 304	
8	Flange	ASTM A182 F304	

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	102	145	127	80	1.5	168	3.1	162	2.9	182	3.1	192	3.3
¾"	102	145	127	80	1.5	172	3.8	172	3.1	192	4.3	202	4.7
1"	164	145	127	80	2.5	182	4	213	3.5	226	4.6	238	5.1



INSTALLATION

The stream trap must always be fitted with connections in horizontal position and with the body below them. Thist type of trap cannot operate in any other position. The steam trap cannot operate without the initial and preservation of the internal water seal. For this reason the trap should be always fitted below the drain point. When this is not possible a check valve should be fitted at the trap inlet. This procedure is also advisable when operating with superheated steam. In some cases it may be necessary to fill the steam trap with water before steam is turned on.

How to order: i.e. IA F304 10 ½" NPT

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

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DOUGLAS ITALIA S.P.A.

INVERTED BUCKET STEAM TRAPS
IB A105

INVERTED BUCKET

This trap uses an inverted bucket that floats whean steam is present and sinks when condensate exceeds a predetermined liquid level.When the bucket floats the valve – at the top of the trap – is closed . When it sinks the valve will open. On start up the bucket is down end the valve is wide open , when condensate and air enters the trap it flows directly into the bucket…The condensate falls into the trap body whereas air collects at the top of the bucket and causes it to float thereby closing the valve. Air is released through a vent at the top of the bucket and collects in the top of the trap until the bucket sinks opening the valve and allows the discharge of air and condensate. When steam is formed , it collects in the top of the bucket causing it to float thereby closing the valve. The bucket will sink again when condensate reaches the predeterminated level and the cycle starts over.

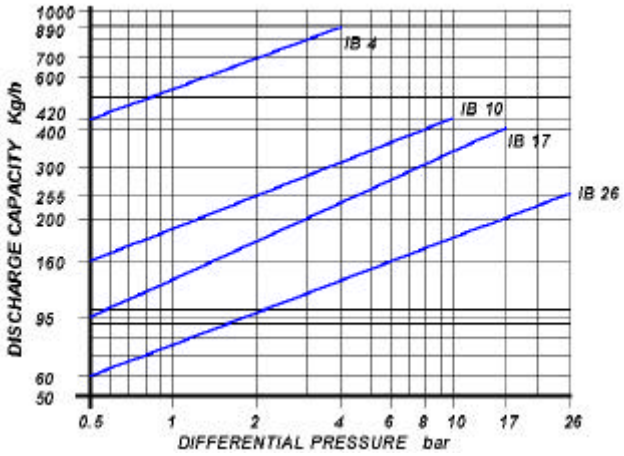
MAIN FEATURES

Discharge of condensate at steam temperature. Simple and reliable construction. Slow discharge of air. Suitable for superheated steam. It whith stands waterhammer.

APPLICATIONS

- *Heater batteries*
- *Heat exchangers*
- *Pans*
- *Turbines*
- *Drying cilinders*
- *Ironing machines*

DISCHARGE CAPACITY



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

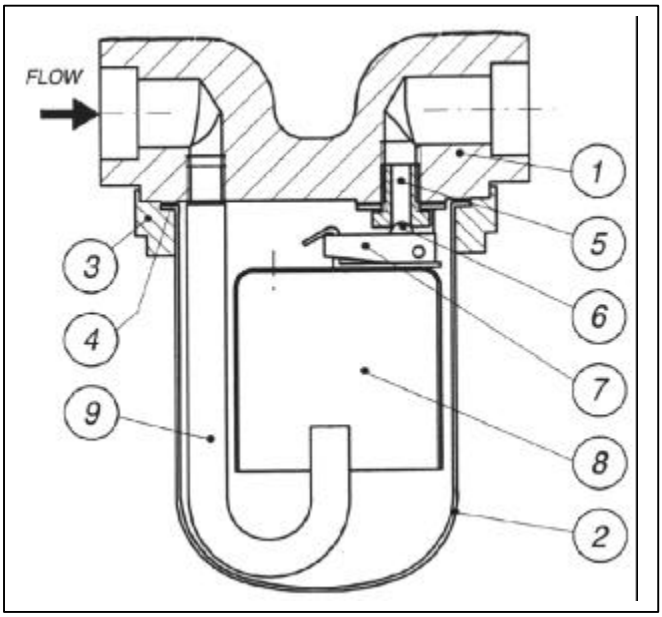
SIZES
½" – ¾" – 1"

CONNECTIONS	
Screwed	BS 21 (BSP) /ANSI B1.20.1 (NPT)
Socket weld	ANSI B 16.11
Flanged	ANSI 150#/300#/600#/UNI/DIN

LIMITING CONDITIONS (according to ISO 6552)		
Steam Trap rating		ANSI 300
PMA: Max allowable pressure		50 bar
TMA: max allowable temperature		420°C
PMO: max working pressure		26 bar
TMO: max working temperature		380°C
Max. Differential pressure	(IB 4)	4 bar
Max. Differential pressure	(IB 10)	10 bar
Max. Differential pressure	(IB 17)	17 bar
Max. Differential pressure	(IB 26)	26 bar

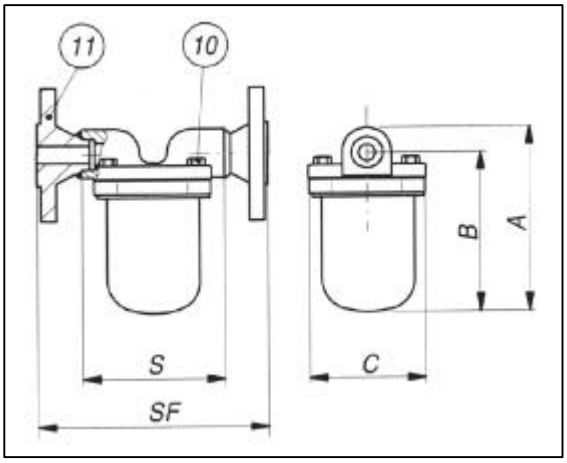
INVERTED BUCKET STEAM TRAPS

IB A105



POS.	DESCRIPTION	MATERIALS	SPARES
1	Cover	ASTM A 105	
2	Body	AISI 304	
3	Flange	ASTM A 105	
4	Gasket	CAF	X
5	Seat	AISI 410	X
6	Valve	AISI 410	X
7	Lever	AISI 304	X
8	Bucket	AISI 304	X
9	Tube	AISI 304	
10	Bolts	ASTM A 193 B 7	
11	Flange	ASTM A 105	

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	110	148	128	102	2.5	176	4.1	170	3.9	190	4.1	200	4.3
¾"	110	148	128	102	2.5	180	4.8	180	4.1	200	5.3	210	5.7
1"	172	148	128	102	3	190	5.7	221	5.7	234	7	247	8.2



INSTALLATION

The trap must be installed with the body upright so that the bucket rises and falls vertically. The inlet and outlet connections must be in horizontal position, with the trap installed below the drain point in order to form and preservate the internal water seal.

HOW TO SERVICE

Remove cover (1) by undoing bolts (10) un hook the bucket (8) from the valve lever (7) unscrew the seat (5) from the cover (1) screw in rhe new one, hooking the bucket back (8).

How to order: i.e. *IB A105 26 ½" 300 RF*

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DOUGLAS ITALIA S.P.A.

INVERTED BUCKET STEAM TRAPS
IB F304

INVERTED BUCKET

This trap uses an inverted bucket that floats whean steam is present and sinks when condensate exceeds a predetermined liquid level.When the bucket floats the valve – at the top of the trap – is closed . When it sinks the valve will open. On start up the bucket is down end the valve is wide open , when condensate and air enters the trap it flows directly into the bucket…The condensate falls into the trap body whereas air collects at the top of the bucket and causes it to float thereby closing the valve. Air is released through a vent at the top of the bucket and collects in the top of the trap until the bucket sinks opening the valve and allows the discharge of air and condensate. When steam is formed , it collects in the top of the bucket causing it to float thereby closing the valve. The bucket will sink again when condensate reaches the predeterminated level and the cycle starts over.

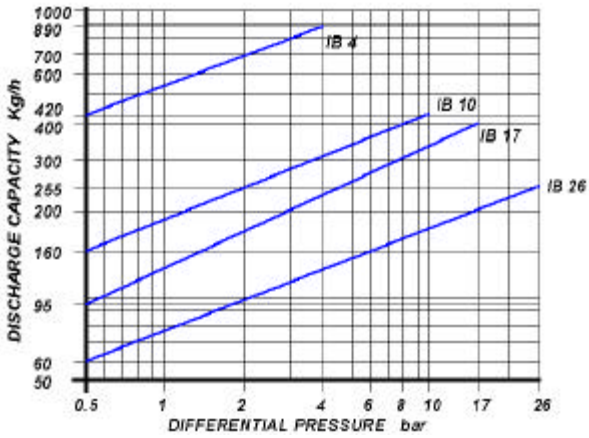
MAIN FEATURES

Discharge of condensate at steam temperature. Simple and reliable construction. Slow discharge of air. Suitable for superheated steam. It whith stands waterhammer.

APPLICATIONS

- *Heater batteries*
- *Heat exchangers*
- *Pans*
- *Turbines*
- *Drying cilinders*
- *Ironing machines*

DISCHARGE CAPACITY



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

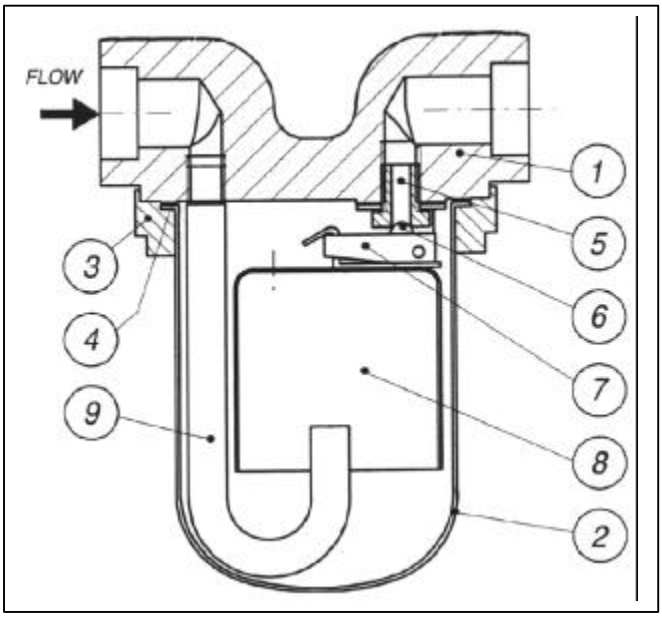
SIZES
½" – ¾" – 1"

CONNECTIONS	
Screwed	BS 21 (BSP) /ANSI B1.20.1 (NPT)
Socket weld	ANSI B 16.11
Flanged	ANSI 150#/300#/600#/UNI/DIN

LIMITING CONDITIONS (according to ISO 6552)		
Steam Trap rating		ANSI 300
PMA: Max allowable pressure		50 bar
TMA: max allowable temperature		500°C
PMO: max working pressure		26 bar
TMO: max working temperature		380°C
Max. Differential pressure	(IB 4)	4 bar
Max. Differential pressure	(IB 10)	10 bar
Max. Differential pressure	(IB 17)	17 bar
Max. Differential pressure	(IB 26)	26 bar

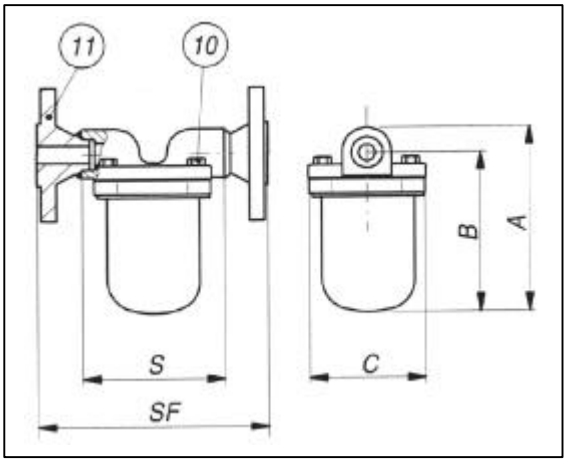
INVERTED BUCKET STEAM TRAPS

IB F304



POS.	DESCRIPTION	MATERIALS	SPARES
1	Cover	ASTM A182 F304	
2	Body	AISI 304	
3	Flange	ASTM A182 F304	
4	Gasket	CAF	X
5	Seat	AISI 410	X
6	Valve	AISI 410	X
7	Lever	AISI 304	X
8	Bucket	AISI 304	X
9	Tube	AISI 304	
10	Bolts	ASTM A 193 B 7	
11	Flange	ASTM A182 F304	

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	110	148	128	102	2.5	176	4.1	170	3.9	190	4.1	200	4.3
¾"	110	148	128	102	2.5	180	4.8	180	4.1	200	5.3	210	5.7
1"	172	148	128	102	3	190	5.7	221	5.7	234	7	247	8.2



INSTALLATION

The trap must be installed with the body upright so that the bucket rises and falls vertically. The inlet and outlet connections must be in horizontal position, with the trap installed below the drain point in order to form and preservate the internal water seal.

HOW TO SERVICE

Remove cover (1) by undoing bolts (10) un hook the bucket (8) from the valve lever (7) unscrew the seat (5) from the cover (1) screw in rhe new one, hooking the bucket back (8).

How to order: i.e. *IB F304 26 ½" 300 RF*

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

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DOUGLAS ITALIA S.P.A.

INVERTED BUCKET STEAM TRAPS
IK

INVERTED BUCKET

This trap uses an inverted bucket that floats whean steam is present and sinks when condensate exceeds a predetermined liquid level.When the bucket floats the valve – at the top of the trap – is closed . When it sinks the valve will open. On start up the bucket is down end the valve is wide open , when condensate and air enters the trap it flows directly into the bucket…The condensate falls into the trap body whereas air collects at the top of the bucket and causes it to float thereby closing the valve. Air is released through a vent at the top of the bucket and collects in the top of the trap until the bucket sinks opening the valve and allows the discharge of air and condensate. When steam is formed , it collects in the top of the bucket causing it to float thereby closing the valve. The bucket will sink again when condensate reaches the predeterminated level and the cycle starts over.

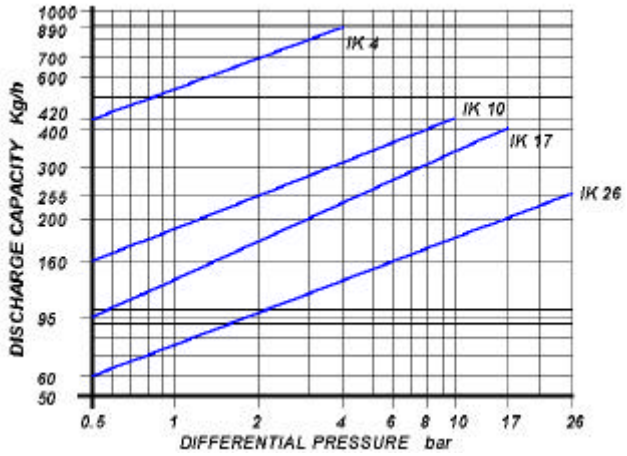
MAIN FEATURES

Discharge of condensate at steam temperature. Simple and reliable construction. Slow discharge of air. Suitable for superheated steam. It whith stands waterhammer.

APPLICATIONS

- *Heater batteries*
- *Heat exchangers*
- *Pans*
- *Turbines*
- *Drying cilinders*
- *Ironing machines*

DISCHARGE CAPACITY



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

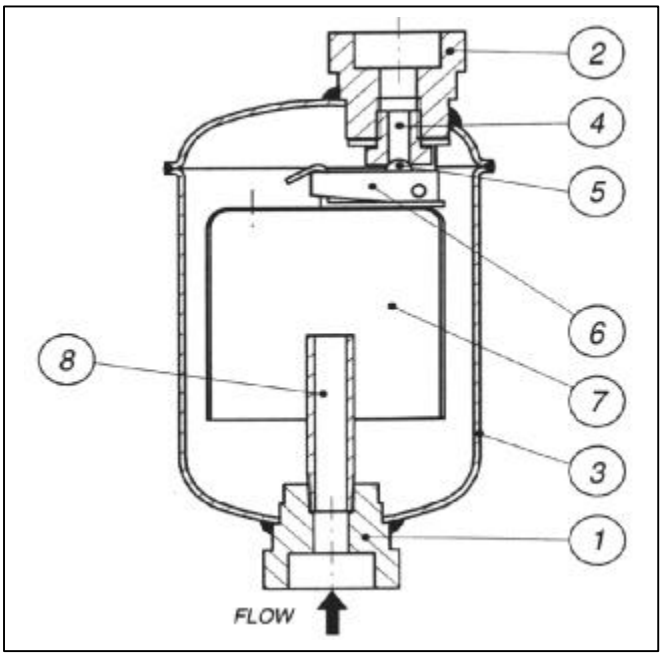
SIZES
½" – ¾"

CONNECTIONS	
Screwed	BS 21 (BSP) /ANSI B1.20.1 (NPT)
Socket weld	ANSI B 16.11
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		500°C
PMO: max working pressure		26 bar
TMO: max working temperature		380°C
Max. Differential pressure	(IK 4)	4 bar
Max. Differential pressure	(IK 10)	10 bar
Max. Differential pressure	(IK 17)	17 bar
Max. Differential pressure	(IK 26)	26 bar

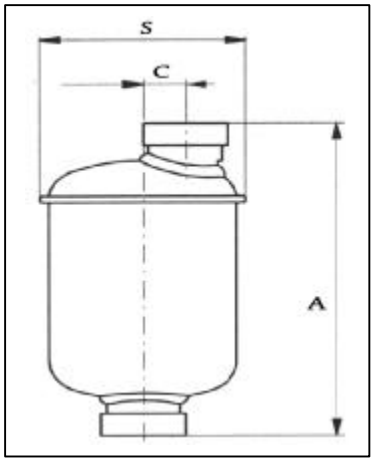
INVERTED BUCKET STEAM TRAPS

IK



POS.	DESCRIPTION	MATERIALS	SPARES
1	Inlet coupoling	AISI 304	
2	Outlet coupoling	AISI 304	
3	Body	AISI 304	
4	Seat	AISI 410	
5	Valve	AISI 410	
6	Lever	AISI 304	
7	Bucket	AISI 304	
8	Tube	AISI 304	

Size (inches)	S	A	C	Weight (Kg)
½"	76	144	16	0.9
¾"	76	144	16	0.9



INSTALLATION

The trap must be installed with the body upright so that the bucket is rises and falls vertically. The inlet should be at the bottom with the trap installed below the drain point so that a water seal can be maintained around the open end of the bucket. When is not possible a check valve should be fitted at the trap inlet. This procedure is also advisable when operating with superheated steam.

How to order: i.e. IK 10 ½" NPT

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DOUGLAS ITALIA S.P.A.

INVERTED BUCKET STEAM TRAPS

IF 304 360° CONNECTIONS

INVERTED BUCKET

This trap uses an inverted bucket that floats whean steam is present and sinks when condensate exceeds a predetermined liquid level.When the bucket floats the valve – at the top of the trap – is closed . When it sinks the valve will open. On start up the bucket is down end the valve is wide open , when condensate and air enters the trap it flows directly into the bucket…The condensate falls into the trap body whereas air collects at the top of the bucket and causes it to float thereby closing the valve. Air is released through a vent at the top of the bucket and collects in the top of the trap until the bucket sinks opening the valve and allows the discharge of air and condensate. When steam is formed , it collects in the top of the bucket causing it to float thereby closing the valve. The bucket will sink again when condensate reaches the predeterminated level and the cycle starts over.

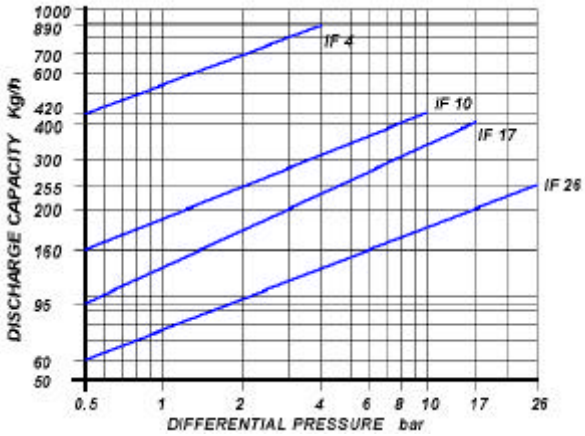
MAIN FEATURES

Discharge of condensate at steam temperature. Simple and reliable construction. Slow discharge of air. Suitable for superheated steam. It whith stands waterhammer.

APPLICATIONS

- *Heater batteries*
- *Heat exchangers*
- *Pans*
- *Turbines*
- *Drying cilinders*
- *Ironing machines*

DISCHARGE CAPACITY



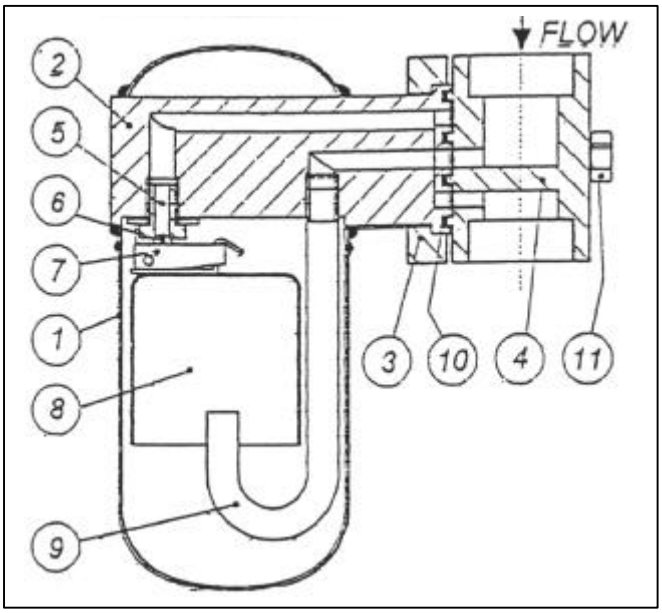
Cold water capacities are 2 to 4 times greater than the above .
Safety factor = 1.2 – 1.5

SIZES
½" – ¾" – 1"

CONNECTIONS	
Screwed	BS 21 (BSP) /ANSI B1.20.1 (NPT)
Socket weld	ANSI B 16.11
Flanged	ANSI 150#/300#/600#/UNI/DIN

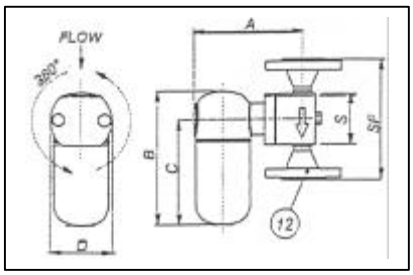
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 300
PMA: Max allowable pressure	50 bar
TMA: max allowable temperature	500°C
PMO: max working pressure	26 bar
TMO: max working temperature	380°C
Max. Differential pressure (IF 4)	4 bar
Max. Differential pressure (IF 10)	10 bar
Max. Differential pressure (IF 17)	17 bar
Max. Differential pressure (IF 26)	26 bar

INVERTED BUCKET STEAM TRAPS
IF 304 360° CONNECTIONS



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	AISI 304	
2	Cover	ASTM A182 F304	
3	Flange	ASTM A182 F304	
4	Connector	ASTM A182 F304	
5	Seat	AISI 410	X
6	Valve	AISI 410	X
7	Lever	AISI 304	X
8	Bucket	AISI 304	X
9	Tube	AISI 304	
10	Gasket	316 / GRAPHITE	X
11	Bolts	ASTM A193 B8	
12	Flange	ASTM A182 F304	

Flanged														
Size (inches)	S	A	B	C	D	Weight (Kg)	UNI-DIN PN25-40		150#		300#		600#	
							SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	60	140	174	129	70	3	130	4.4	120	4.4	140	4.6	150	4.8
¾"	60	140	174	129	70	3	132	4.6	130	4.6	150	5.8	160	6.2
1"	68	142	174	129	80	3.8	138	6	148	6	158	7.2	178	7.6



INSTALLATION

The pipeline can be installed in either horizontal or vertical pipework. The maiting flange on the IF 304 trap is free rotate 360°. The steam trap should be fitted with the cover above the centre line of the trap. Ensure inner and outher gaskets are in place and secure trap to pipeline connector using two connectors screws.

How to order: i.e. *IF 304 10 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.

INVERTED BUCKET STEAM TRAPS

IFS 360° CONNECTIONS

INVERTED BUCKET

This trap uses an inverted bucket that floats whean steam is present and sinks when condensate exceeds a predetermined liquid level.When the bucket floats the valve – at the top of the trap – is closed . When it sinks the valve will open. On start up the bucket is down end the valve is wide open , when condensate and air enters the trap it flows directly into the bucket…The condensate falls into the trap body whereas air collects at the top of the bucket and causes it to float thereby closing the valve. Air is released through a vent at the top of the bucket and collects in the top of the trap until the bucket sinks opening the valve and allows the discharge of air and condensate. When steam is formed , it collects in the top of the bucket causing it to float thereby closing the valve. The bucket will sink again when condensate reaches the predeterminated level and the cycle starts over.

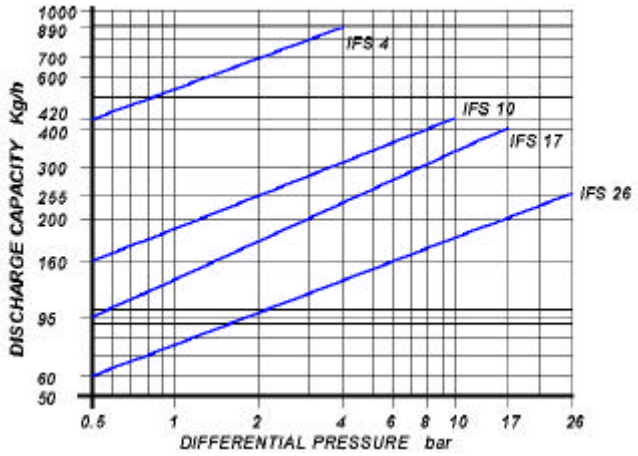
MAIN FEATURES

Discharge of condensate at steam temperature. Simple and reliable construction. Slow discharge of air. Suitable for superheated steam. It whith stands waterhammer.

APPLICATIONS

- *Heater batteries*
- *Heat exchangers*
- *Pans*
- *Turbines*
- *Drying cilinders*
- *Ironing machines*

DISCHARGE CAPACITY



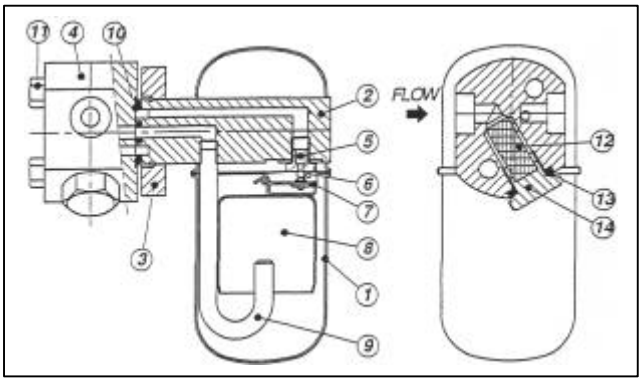
Cold water capacities are 2 to 4 times greater than the above . Safety factor = 1.2 – 1.5

SIZES
½" – ¾" – 1"

CONNECTIONS	
Screwed	BS 21 (BSP) /ANSI B1.20.1 (NPT)
Socket weld	ANSI B 16.11
Flanged	ANSI 150#/300#/600#/UNI/DIN

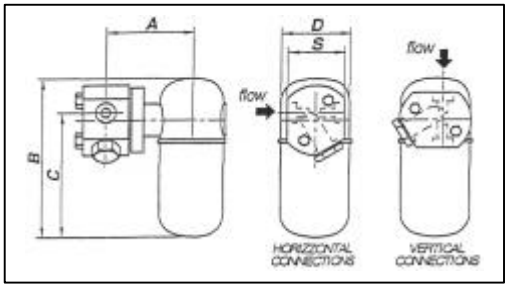
LIMITING CONDITIONS (according to ISO 6552)		
Steam Trap rating		ANSI 300
PMA: Max allowable pressure		50 bar
TMA: max allowable temperature		500°C
PMO: max working pressure		26 bar
TMO: max working temperature		380°C
Max. Differential pressure	(IFS 4)	4 bar
Max. Differential pressure	(IFS 10)	10 bar
Max. Differential pressure	(IFS 17)	17 bar
Max. Differential pressure	(IFS 26)	26 bar

INVERTED BUCKET STEAM TRAPS
IFS 360° CONNECTIONS



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	AISI 304	
2	Cover	ASTM A182 F304	
3	Flange	ASTM A182 F304	
4	Connector	ASTM A105	
5	Seat	AISI 410	X
6	Valve	AISI 410	X
7	Lever	AISI 304	X
8	Bucket	AISI 304	X
9	Tube	AISI 304	
10	Gasket	316 / GRAPHITE	X
11	Bolts	ASTM A193 B7	
12	Screen	AISI 304	X
13	Screen gasket	316 / GRAPHITE	X
14	Strainer cap	ASTM A105	

Flanged														
Size (inches)	S	A	B	C	D	Weight (Kg)	UNI-DIN PN25-40		150#		300#		600#	
							SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	60	101	174	129	73	3.5	130	4.4	120	4.4	140	4.6	150	4.8
¾"	68	101	174	129	73	4.0	138	4.6	138	4.6	158	5.8	168	6.2
1"	68	103	174	129	73	4.5	138	6	148	6	158	7.2	178	7.6



INSTALLATION

The pipeline can be installed in either horizontal or vertical pipework. The maiting flange on the IFS trap is free rotate 360°. The steam trap should be fitted with the cover above the centre line of the trap. Ensure inner and outher gaskets are in place and secure trap to pipeline connector using two connectors screws.

HOW TO SERVICE

To service the strainer , unscrew cap (14), withdraw screen (12) and clean or replace it. Screwing the cap back in place, always a fit new gasket (13)

How to order: i.e. *IFS 10 ½" NPT*

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DOUGLAS ITALIA S.P.A.

INVERTED BUCKET STEAM TRAPS
IDD A105

INVERTED BUCKET

This trap uses an inverted bucket that floats whean steam is present and sinks when condensate exceeds a predetermined liquid level.When the bucket floats the valve – at the top of the trap – is closed . When it sinks the valve will open. On start up the bucket is down end the valve is wide open , when condensate and air enters the trap it flows directly into the bucket…The condensate falls into the trap body whereas air collects at the top of the bucket and causes it to float thereby closing the valve. Air is released through a vent at the top of the bucket and collects in the top of the trap until the bucket sinks opening the valve and allows the discharge of air and condensate. When steam is formed , it collects in the top of the bucket causing it to float thereby closing the valve. The bucket will sink again when condensate reaches the predeterminated level and the cycle starts over.

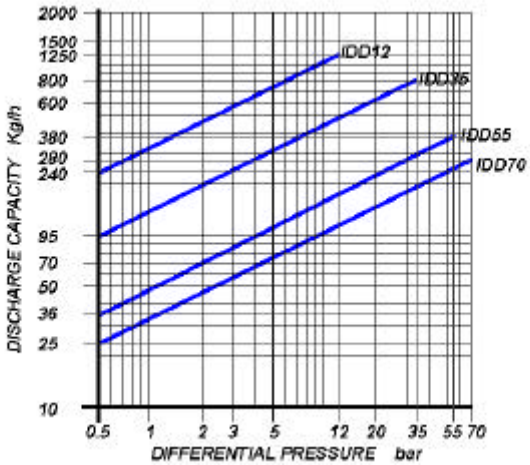
MAIN FEATURES

Discharge of condensate at steam temperature. Simple and reliable construction. Slow discharge of air. Suitable for superheated steam. It whith stands waterhammer.

APPLICATIONS

- *Heater batteries*
- *Heat exchangers*
- *Pans*
- *Turbines*
- *Drying cilinders*
- *Ironing machines*

DISCHARGE CAPACITY



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

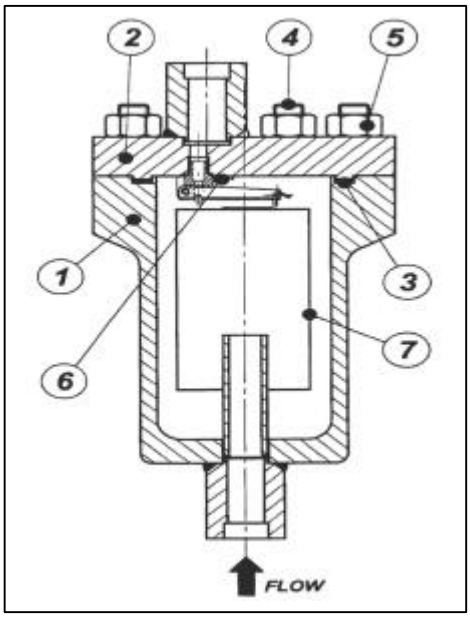
SIZES
½" – ¾" – 1"

CONNECTIONS	
Screwed	BS 21 (BSP) /ANSI B1.20.1 (NPT)
Socket weld	ANSI B 16.11
Flanged	ANSI B 16.5 / UNI / DIN

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 600
PMA: Max allowable pressure	100 bar
TMA: max allowable temperature	400°C
PMO: max working pressure	75 bar
TMO: max working temperature	350°C
Max. Differential pressure (IDD 12)	12 bar
Max. Differential pressure (IDD 35)	35 bar
Max. Differential pressure (IDD 55)	55 bar
Max. Differential pressure (IDD 70)	70 bar

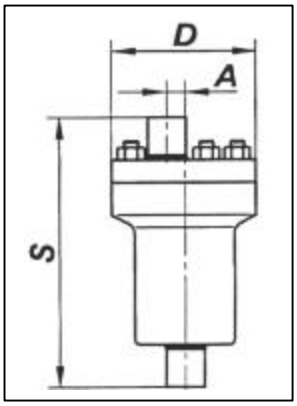
INVERTED BUCKET STEAM TRAPS

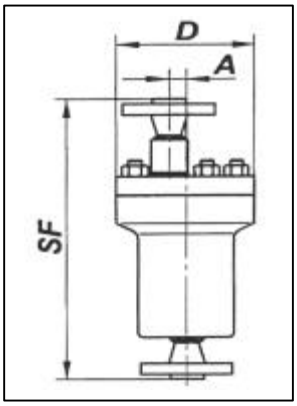
IDD A105



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A 105	
2	Cover	ASTM A 105	
3	Cover gasket	316 / GRAPHITE	X
4	Studs	ASTM A193 B7	
5	Nuts	ASTM A194 2H	
6	Seat	AISI 410	X
6	Valve	AISI 416	X
6	Lever	AISI 304	X
7	Bucket	AISI 304	X

						Flanged							
Size (inches)	S NPT	S SW	A	B	Weight (Kg)	UNI-DIN PN 25 – 40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	305	305	18	155	26	323	27	342.5	28	352	29	365	30
¾"	305	305	18	155	26	327	28	352	29	362	31	374.5	32
1"	305	305	18	155	26	328	29	359	30	372	33	385	34





INSTALLATION

The trap must be installed with the body upright so that the bucket rises and falls vertically. The inlet and outlet connections must be in a horizontal position, with the trap installed below the drain point in order to from and preservate the internal water seal.

HOW TO SERVICE

Before doing any maintenance work always ensure that the trap is isolated and pressure is dissipated. Undo cover nuts (5), remove cover (2) with all mechanism and cover gasket (3). Unlock the bucket (7) from valve lever (6). Remove the valve guide undoing to the screw. Remove valve seat from cover (2). Screw in a new valve seat. Reinstall valve guide with lever and bucket (7). Refit cover (2), using new gasket (3).

How to order: i.e. IDD 12 ½" SW

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DOUGLAS ITALIA S.P.A.

INVERTED BUCKET STEAM TRAPS
IED

INVERTED BUCKET

This trap uses an inverted bucket that floats whean steam is present and sinks when condensate exceeds a predetermined liquid level.When the bucket floats the valve – at the top of the trap – is closed . When it sinks the valve will open. On start up the bucket is down end the valve is wide open , when condensate and air enters the trap it flows directly into the bucket…The condensate falls into the trap body whereas air collects at the top of the bucket and causes it to float thereby closing the valve. Air is released through a vent at the top of the bucket and collects in the top of the trap until the bucket sinks opening the valve and allows the discharge of air and condensate. When steam is formed , it collects in the top of the bucket causing it to float thereby closing the valve. The bucket will sink again when condensate reaches the predeterminated level and the cycle starts over.

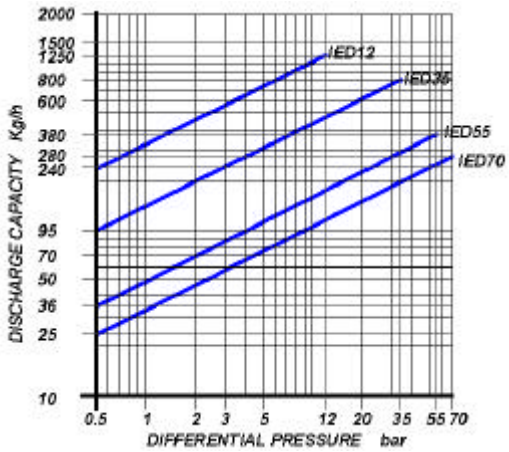
MAIN FEATURES

Discharge of condensate at steam temperature. Simple and reliable construction. Slow discharge of air. Suitable for superheated steam. It whith stands waterhammer.

APPLICATIONS

- *Heater batteries*
- *Heat exchangers*
- *Pans*
- *Turbines*
- *Drying cilinders*
- *Ironing machines*

DISCHARGE CAPACITY



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

SIZES

½" – ¾" – 1"

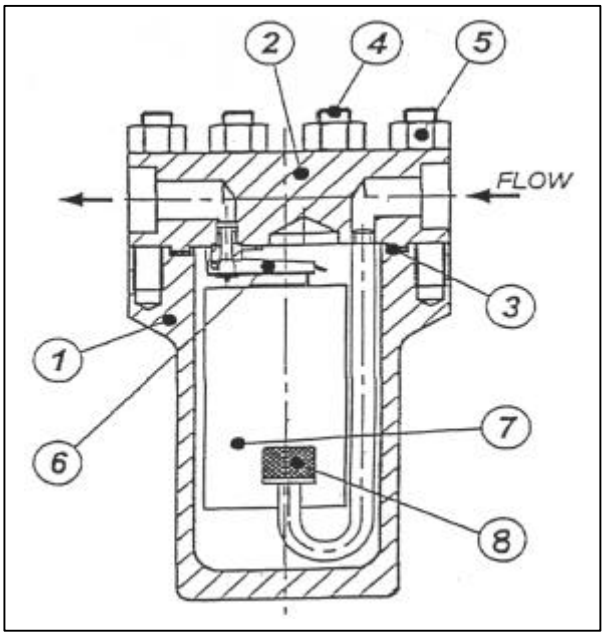
CONNECTIONS

Screwed	*BS 21 (BSP) /ANSI B1.20.1 (NPT)*
Socket weld	*ANSI B 16.11*
Flanged	*ANSI B 16.5 / UNI / DIN*

LIMITING CONDITIONS (according to ISO 6552)

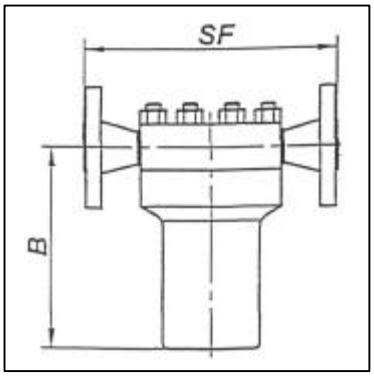
Steam Trap rating		*ANSI 600*
PMA: Max allowable pressure		*100 bar*
TMA: max allowable temperature		*410°C*
PMO: max working pressure		*75 bar*
TMO: max working temperature		*380°C*
Max. Differential pressure	*(IED 12)*	*12 bar*
Max. Differential pressure	*(IED 35)*	*35 bar*
Max. Differential pressure	*(IED 55)*	*55 bar*
Max. Differential pressure	*(IED 70)*	*70 bar*

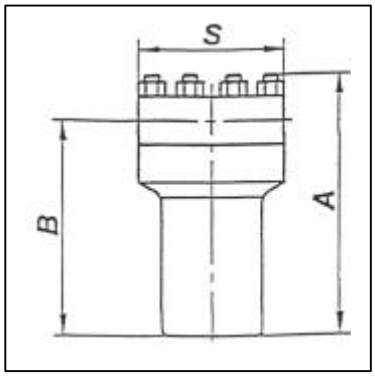
INVERTED BUCKET STEAM TRAPS
IED



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A 105	
2	Cover	ASTM A 105	
3	Cover gasket	316 / GRAPHITE	X
4	Studs	ASTM A193 B7	
5	Nuts	ASTM A194 2H	
6	Seat	AISI 410	X
6	Valve	AISI 416	X
6	Lever	AISI 304	X
7	Bucket	AISI 304	X
8	Screen *	AISI 304	X
* optional			

Flanged															
Size (inches)	S NPT	S SW	A	B	Weight (Kg)	UNI-DIN PN 25 – 40		150#		300#		600#		1500#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	145	145	255	207	23	207	24.5	224	25	234	26	250	27	262	30
¾"	145	145	255	207	23	211	25	234	26	244	27	256	28	282	31
1"	145	145	255	207	23	211	26	240	27	255	28	266	29	288	33





INSTALLATION

The trap must be installed with the body upright so that the bucket rises and falls vertically. The inlet and outlet connections must be in a horizontal position, with the trap installed below the drain point in order to from and preservate the internal water seal.

HOW TO SERVICE

Before doing any maintenance work always ensure that the trap is isolated and pressure is dissipated. Undo cover nuts (5), remove cover (2) with all mechanism and cover gasket (3). Unlock the bucket (7) from valve lever (6). Remove the valve guide undoing to the screw. Remove valve seat from cover (2). Screw in a new valve seat. Reinstall valve guide with lever and bucket (7). Refit cover (2), using new gasket (3).

How to order: i.e. *IED 12 ½" 300 RF*

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DOUGLAS ITALIA S.P.A.

INVERTED BUCKET STEAM TRAPS
IDD F11

INVERTED BUCKET

This trap uses an inverted bucket that floats whean steam is present and sinks when condensate exceeds a predetermined liquid level.When the bucket floats the valve – at the top of the trap – is closed . When it sinks the valve will open. On start up the bucket is down end the valve is wide open , when condensate and air enters the trap it flows directly into the bucket…The condensate falls into the trap body whereas air collects at the top of the bucket and causes it to float thereby closing the valve. Air is released through a vent at the top of the bucket and collects in the top of the trap until the bucket sinks opening the valve and allows the discharge of air and condensate. When steam is formed , it collects in the top of the bucket causing it to float thereby closing the valve. The bucket will sink again when condensate reaches the predeterminated level and the cycle starts over.

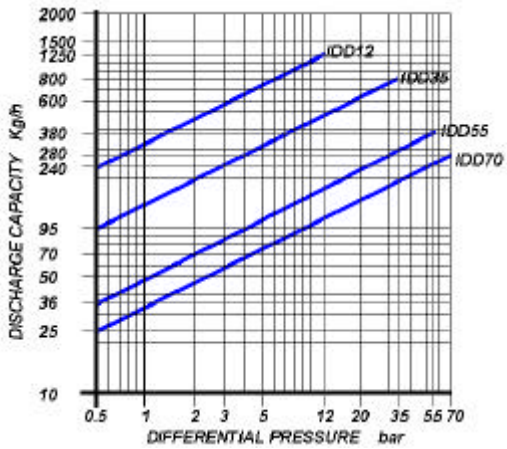
MAIN FEATURES

Discharge of condensate at steam temperature. Simple and reliable construction. Slow discharge of air. Suitable for superheated steam. It whith stands waterhammer.

APPLICATIONS

- *Heater batteries*
- *Heat exchangers*
- *Pans*
- *Turbines*
- *Drying cilinders*
- *Ironing machines*

DISCHARGE CAPACITY



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

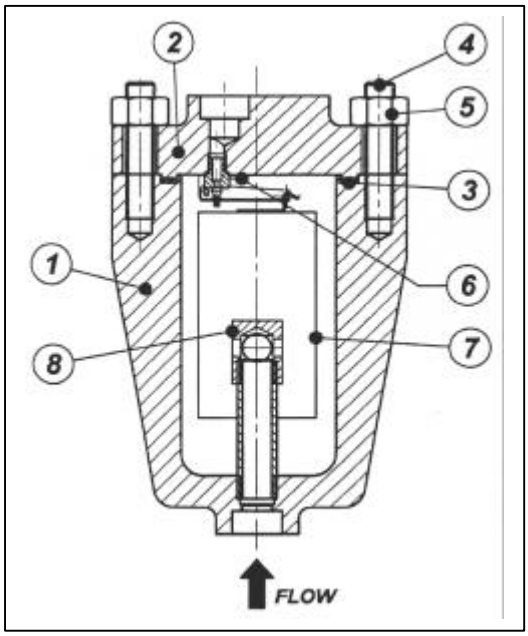
SIZES
½" – ¾" – 1"

CONNECTIONS	
Screwed	BS 21 (BSP) /ANSI B1.20.1 (NPT)
Socket weld	ANSI B 16.11

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 900
PMA: Max allowable pressure	155 bar
TMA: max allowable temperature	580°C
PMO: max working pressure	95 bar
TMO: max working temperature	480°C
Max. Differential pressure (IDD 12)	12 bar
Max. Differential pressure (IDD 35)	35 bar
Max. Differential pressure (IDD 55)	55 bar
Max. Differential pressure (IDD 70)	70 bar

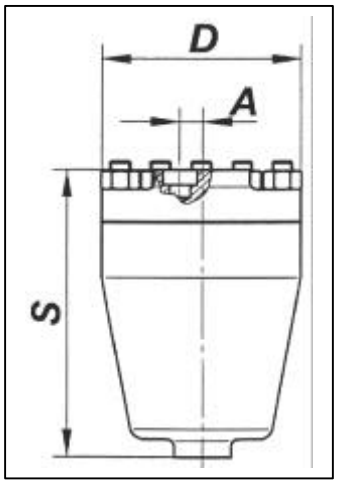
INVERTED BUCKET STEAM TRAPS

IDD F11



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A182 F11	
2	Cover	ASTM A182 F11	
3	Cover gasket	316 / GRAPHITE	X
4	Studs	ASTM A193 L7	
5	Nuts	ASTM A194 Gr.4	
6	Seat	AISI 410	X
6	Valve	AISI 416	X
6	Lever	AISI 304	X
7	Bucket	AISI 304	X
8	Check valve *	AISI 304	X
*** optional**			

Size (inches)	S NPT	S SW	A	B	Weight (Kg)
½"	305	305	18	155	23
¾"	305	305	18	155	23
1"	305	305	18	155	23



INSTALLATION

The trap must be installed with the body upright so that the bucket rises and falls vertically. The inlet and outlet connections must be in a horizontal position, with the trap installed below the drain point in order to from and preservate the internal water seal.

HOW TO SERVICE

Before doing any maintenance work always ensure that the trap is isolated and pressure is dissipated. Undo cover nuts (5), remove cover (2) with all mechanism and cover gasket (3). Unlock the bucket (7) from valve lever (6). Remove the valve guide undoing to the screw. Remove valve seat from cover (2). Screw in a new valve seat. Reinstall valve guide with lever and bucket (7). Refit cover (2), using new gasket (3).

How to order: i.e. IDD 12 ½" SW

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DOUGLAS ITALIA S.P.A.

INVERTED BUCKET STEAM TRAPS
IDH

INVERTED BUCKET

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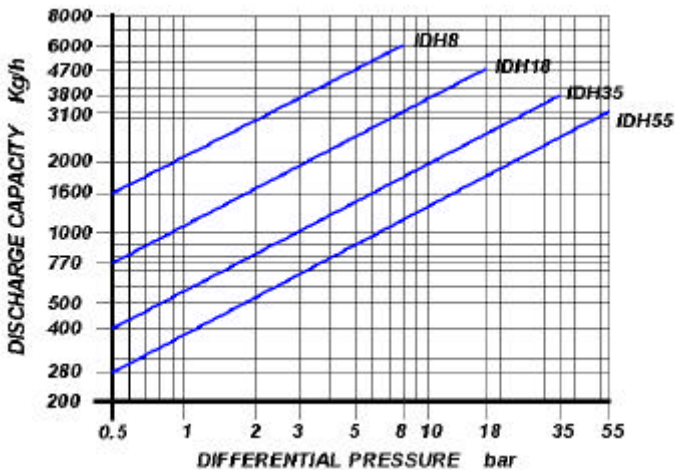
MAIN FEATURES

Discharge of condensate at steam temperature. Simple and reliable construction. Slow discharge of air. Suitable for superheated steam. It whith stands waterhammer.

APPLICATIONS

- *Heater batteries*
- *Heat exchangers*
- *Pans*
- *Turbines*
- *Drying cilinders*
- *Ironing machines*

DISCHARGE CAPACITY



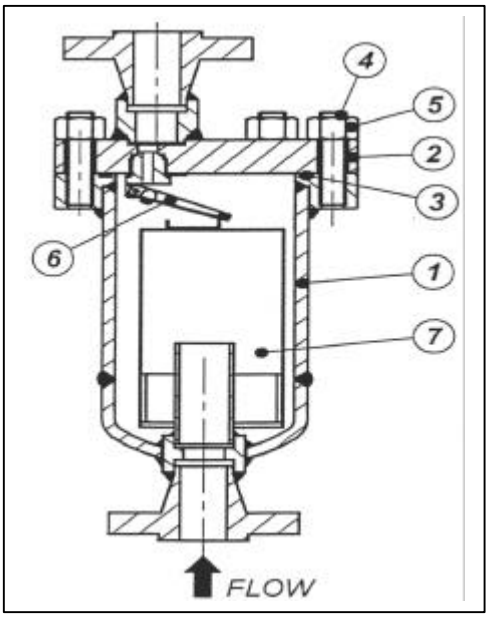
Cold water capacities are 2 to 4 times greater than the above .
Safety factor = 1.2 – 1.5

SIZES
1" – 1½" – 2"

CONNECTIONS	
Screwed	*BS 21 (BSP) /ANSI B1.20.1 (NPT)*
Socket weld	*ANSI B 16.11*
Flanged	*ANSI B 16.5 / UNI / DIN*

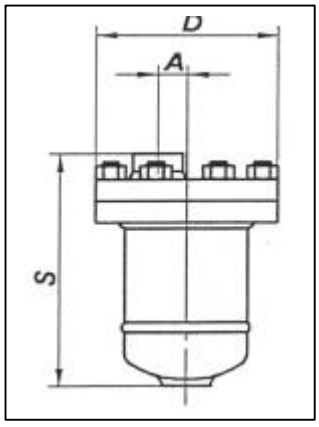
LIMITING CONDITIONS (according to ISO 6552)		
Steam Trap rating		*ANSI 600*
PMA: Max allowable pressure		*100 bar*
TMA: max allowable temperature		*400°C*
PMO: max working pressure		*75 bar*
TMO: max working temperature		*350°C*
Max. Differential pressure	*(IDH 8)*	*8 bar*
Max. Differential pressure	*(IDH 18)*	*18 bar*
Max. Differential pressure	*(IDH 35)*	*35 bar*
Max. Differential pressure	*(IDH 55)*	*55 bar*

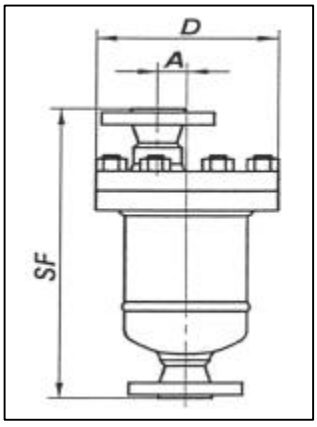
INVERTED BUCKET STEAM TRAPS
IDH



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A 105	
2	Cover	ASTM A 105	
3	Cover gasket	316 / GRAPHITE	X
4	Studs	ASTM A193 B7	
5	Nuts	ASTM A194 2H	
6	Seat	AISI 410	X
6	Valve	AISI 416	X
6	Lever	AISI 304	X
7	Bucket	AISI 304	X

						Flanged									
Size (inches)	S NPT	S SW	A	B	Weight (Kg)	UNI-DIN PN 25 – 40		150#		300#		600#		1500#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg	SF	Kg
1"	396	379	250	45	40	446	42	477	42	490	43	503	44	525	48
1½!	406	386	250	40	40	463	44	497	44	510	46	526	47	551	52
2"	415	411	250	35	40	494	46	525	46	538	48	557	50	614	62





INSTALLATION

The trap must be installed vertically. The inlet must be at the bottom with the trap installed below the drain point in order to maintain the water seal around the bucket. A protective strainer is always raccomended upstream of the trap. Always ensure that the trap is properly sized. With very low condensate loads and/or with superheated steam, the installation of a check valve upstream the trap is raccomended

HOW TO SERVICE

Before doing any maintenance work always ensure that the trap is isolated and pressure is dissipated. Undo cover nuts (5), remove cover (2) with all mechanism and cover gasket (3). Unlock the bucket (7) from valve lever (6). Remove the valve guide undoing to the screw. Remove valve seat from cover (2). Screw in a new valve seat. Reinstall valve guide with lever and bucket (7). Refit cover (2), using new gasket (3).

How to order: i.e. *IDH 8 1½" 300 RF*

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DOUGLAS ITALIA

BALL FLOAT STEAM TRAPS

- GP
- GR
- GS
- GA WCB
- GA CF8M
- GB WCB
- GB CF8M
- GC WCB
- GC CF8M
- GD WCB
- GD CF8M
- GE WCB
- GE CF8M
- GE HC WCB
- GE HC CF8M

GO BACK

DOUGLAS ITALIA S.P.A.

BALL FLOAT STEAM TRAPS
GP

BALL FLOAT

Its operating principle is based on the different density between steam and condensate. A float through a simple lever mechanism opens or closes the valve according to the condensate level in the trap. Air discharge is ensured by a thermostatic element.

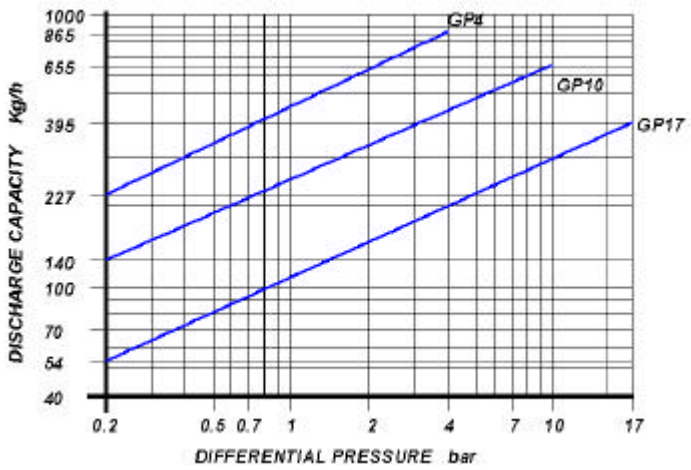
MAIN FEATURES

Continuons discharge. Discharge of condensate at steam temperature. Simple and reliable construction. It does not withstand waterhammer. Suitable on superheated steam

APPLICATIONS

- *Heat exchangers*
- *Heater batteries*
- *Pans*
- *Drying cilinders*
- *Ovens*

DISCHARGE CAPACITY



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

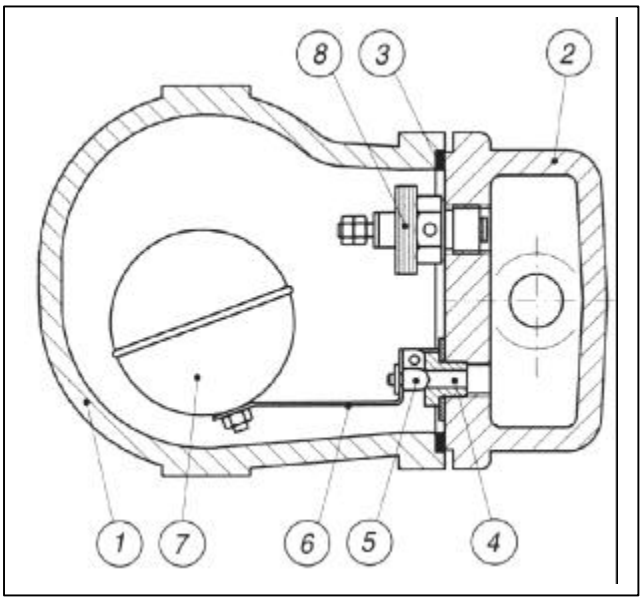
SIZES
½" – ¾"

CONNECTIONS	
Screwed	BS 21 (BSP))
Flanged (ON REQUEST)	ANSI B 16.5 / UNI / DIN

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	DIN PN 25
PMA: Max allowable pressure	25 bar
TMA: max allowable temperature	300°C
PMO: max working pressure	17 bar
TMO: max working temperature	250°C
Max. Differential pressure (GP 4)	4 bar
Max. Differential pressure (GP 10)	10 bar
Max. Differential pressure (GP 17)	17 bar

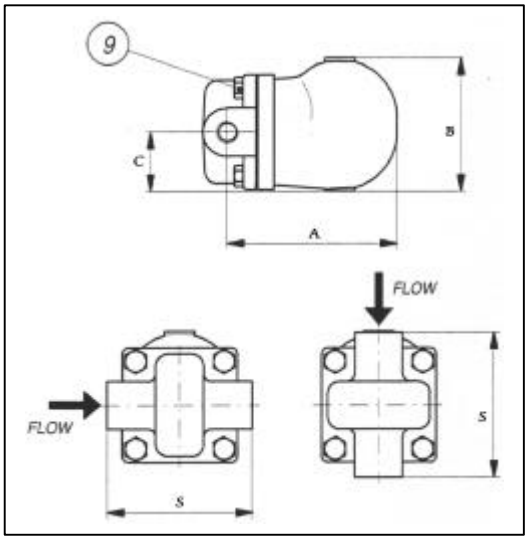
BALL FLOAT STEAM TRAPS

GP



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	GGG40 (DIN 1693)	
2	Cover	GGG40 (DIN 1693)	
3	Gasket	CAF	X
4	Seat	AISI 410	X
5	Valve	AISI 410	X
6	Lever	AISI 304	X
7	Ball float	AISI 304	X
8	Air vent	STAINLESS STEAL	X
9	Bolts	8.8 (UNI 3740-74)	

Size (inches)	S	A	B	C	Weight (Kg)
½"	120	141	110	49	4.8
¾"	120	141	110	49	4.8



INSTALLATION

The steam trap must be fitted with the float arm in a horizontal plane so that it rises and falls vertically with the flow direction indicated on the body.

HOW TO SERVICE

By installing a new mechanism assembly (4),(5),(6), if necessary also a ball float (7) and a thermostatic air vent (8), you can bring the steam trap to the " as new from factory " condition. This operation is carried out without removing the trap from yhe pipeline. Always fit a new gasket (3) when reassembling.

How to order: i.e. *GP 10 ½" BSP*

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

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DOUGLAS ITALIA S.P.A.

BALL FLOAT STEAM TRAPS
GR

BALL FLOAT

Its operating principle is based on the different density between steam and condensate. A float through a simple lever mechanism opens or closes the valve according to the condensate level in the trap. Air discharge is ensured by a thermostatic element.

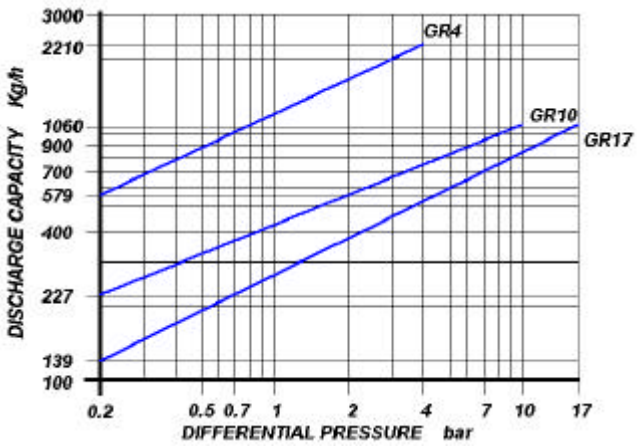
MAIN FEATURES

Continuons discharge. Discharge of condensate at steam temperature. Simple and reliable construction. It does not withstand waterhammer. Suitable on superheated steam

APPLICATIONS

- *Heat exchangers*
- *Heater batteries*
- *Pans*
- *Drying cilinders*
- *Ovens*

DISCHARGE CAPACITY



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

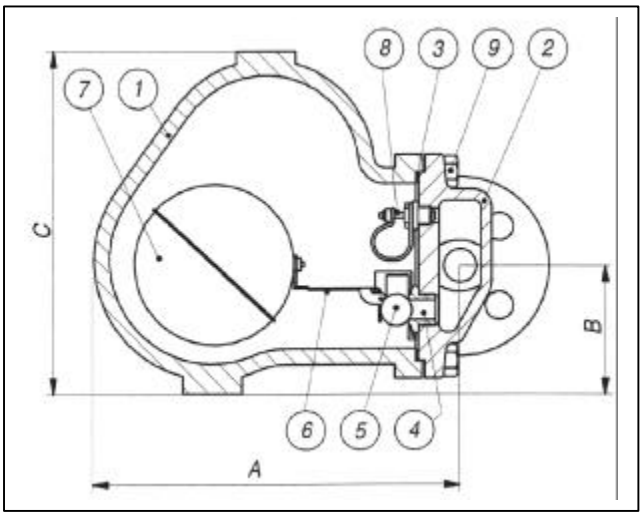
SIZES
1”

CONNECTIONS	
Screwed	BS 21 (BSP))
Flanged	ANSI 150# / 300# / UNI / DIN

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	DIN PN 25
PMA: Max allowable pressure	25 bar
TMA: max allowable temperature	300°C
PMO: max working pressure	17 bar
TMO: max working temperature	250°C
Max. Differential pressure (GR 4)	4 bar
Max. Differential pressure (GR 10)	10 bar
Max. Differential pressure (GR 17)	17 bar

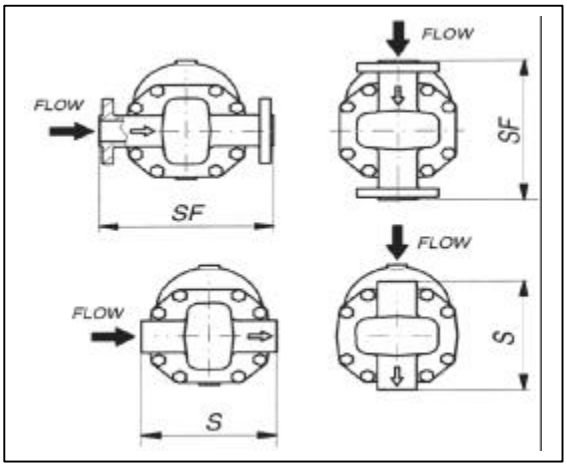
BALL FLOAT STEAM TRAPS

GR



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	GGG40 (DIN 1693)	
2	Cover	GGG40 (DIN 1693)	
3	Gasket	CAF	X
4	Seat	AISI 410	X
5	Valve	AISI 304	X
6	Lever	AISI 304	X
7	Ball float	AISI 304	X
8	Air vent	STAINLESS STEAL	X
9	Bolts	8.8 (UNI 3740-74)	

Flanged											
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#	
						SF	Kg	SF	Kg	SF	Kg
1”	165	238	81	218	13	215	16.5	210	16.5	214	16.7



INSTALLATION

The steam trap must be fitted with the float arm in a horizontal plane so that it rises and falls vertically with the flow direction indicated on the body.

HOW TO SERVICE

By installing a new mechanism assembly (4),(5),(6), if necessary also a ball float (7) and a thermostatic air vent (8), you can bring the steam trap to the “ as new from factory “ condition. This operation is carried out without removing the trap from yhe pipeline. Always fit a new gasket (3) when reassembling.

How to order: i.e. *GR 17 1” 300 RF*

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DOUGLAS ITALIA S.P.A.

BALL FLOAT STEAM TRAPS

GS

BALL FLOAT

Its operating principle is based on the different density between steam and condensate. A float through a simple lever mechanism opens or closes the valve according to the condensate level in the trap. Air discharge is ensured by a thermostatic element.

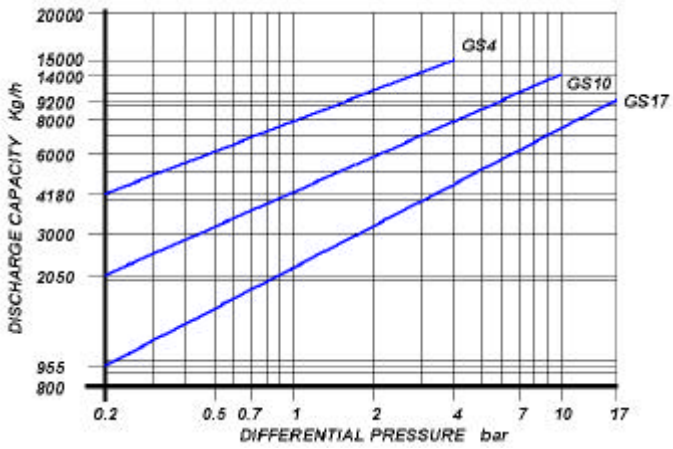
MAIN FEATURES

Continuons discharge. Discharge of condensate at steam temperature. Simple and reliable construction. It does not withstand waterhammer. Suitable on superheated steam

APPLICATIONS

- *Heat exchangers*
- *Heater batteries*
- *Pans*
- *Drying cilinders*
- *Ovens*

DISCHARGE CAPACITY



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

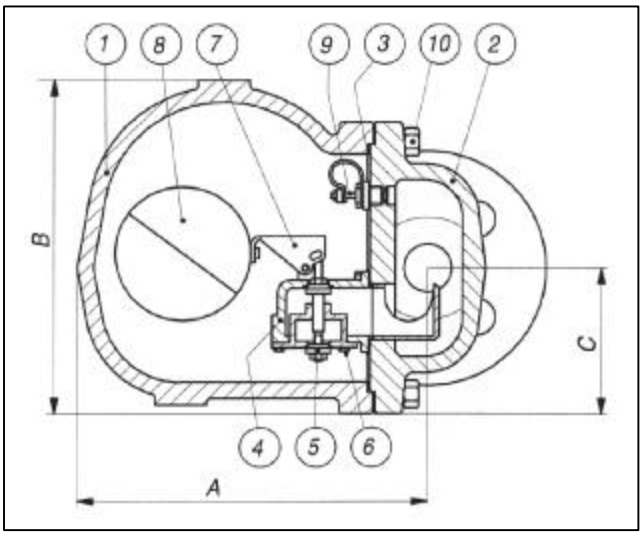
SIZES
1½" – 2"

CONNECTIONS	
Screwed	BS 21 (BSP))
Flanged	ANSI 150# / 300# / UNI / DIN

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	DIN PN 25
PMA: Max allowable pressure	25 bar
TMA: max allowable temperature	300°C
PMO: max working pressure	17 bar
TMO: max working temperature	250°C
Max. Differential pressure (GS 4)	4 bar
Max. Differential pressure (GS 10)	10 bar
Max. Differential pressure (GS 17)	17 bar

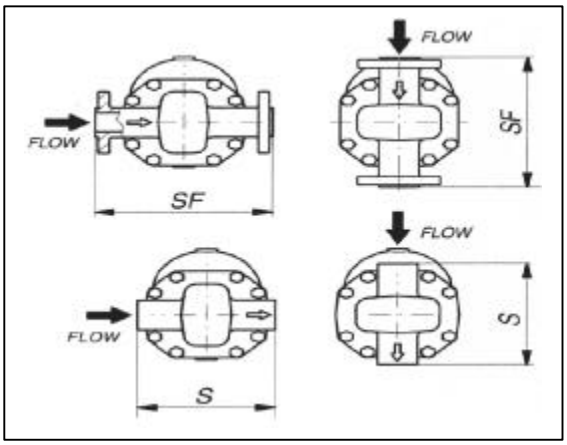
BALL FLOAT STEAM TRAPS

GS



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	GGG40 (DIN 1693)	
2	Cover	GGG40 (DIN 1693)	
3	Gasket	CAF	X
4	Seat	AISI 410	X
5	Valve	AISI 410	X
6	Screws	STAINLESS STEAL	X
7	Lever	AISI 304	X
8	Ball float	AISI 304	X
9	Air vent	STAINLESS STEAL	X
10	Bolts	8.8 (UNI 3740-74)	

Flanged											
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#	
						SF	Kg	SF	Kg	SF	Kg
1½"	260	258	250	109	34	320	37	320	37	320	39
2"	260	258	250	109	34	320	38	320	38	320	40



INSTALLATION

The steam trap must be fitted with the float arm in a horizontal plane so that it rises and falls vertically with the flow direction indicated on the body.

HOW TO SERVICE

By installing a new mechanism assembly (4),(5),(6),(7), if necessary also a ball float (8) and a thermostatic air vent (9), you can bring the steam trap to the " as new from factory " condition. This operation is carried out without removing the trap from yhe pipeline. Always fit a new gasket (3) when reassembling.

How to order: i.e. *GS 17 2" 300 RF*

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DOUGLAS ITALIA S.P.A.

BALL FLOAT STEAM TRAPS

GA WCB

BALL FLOAT

Its operating principle is based on the different density between steam and condensate. A float through a simple lever mechanism opens or closes the valve according to the condensate level in the trap. Air discharge is ensured by a thermostatic element.

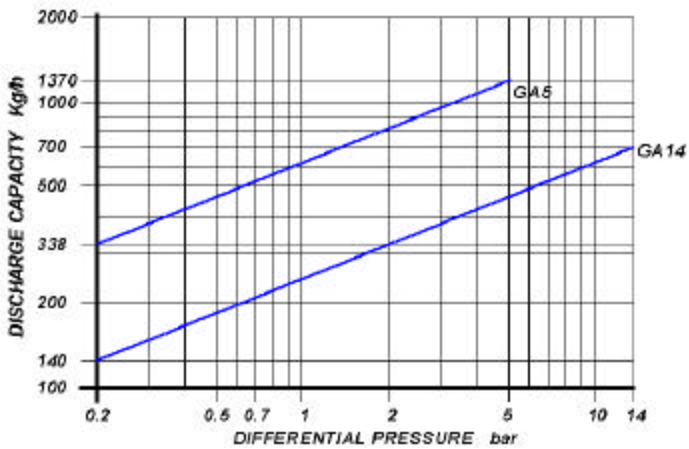
MAIN FEATURES

Continuons discharge. Discharge of condensate at steam temperature. Simple and reliable construction. It does not withstand waterhammer. Suitable on superheated steam

APPLICATIONS

- *Heat exchangers*
- *Heater batteries*
- *Pans*
- *Drying cilinders*
- *Ovens*

DISCHARGE CAPACITY



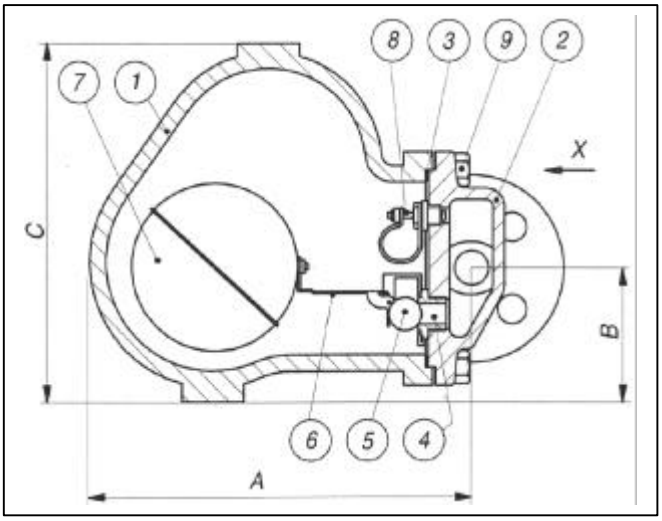
Cold water capacities are 2 to 4 times greater than the above . Safety factor = 1.2 – 1.5

SIZES
½" – ¾" – 1"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

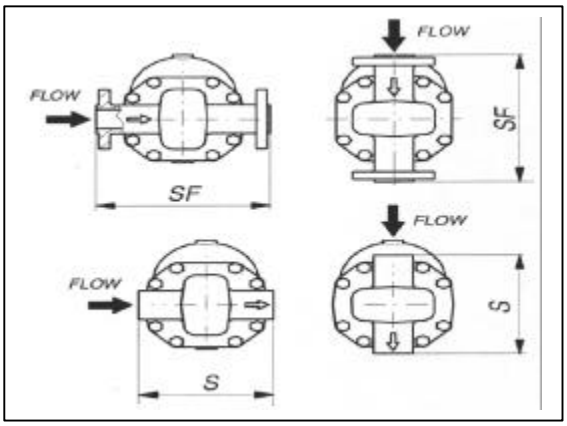
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 150
PMA: Max allowable pressure	20 bar
TMA: max allowable temperature	350°C
PMO: max working pressure	14 bar
TMO: max working temperature	300°C
Max. Differential pressure (GA 5)	5 bar
Max. Differential pressure (GA 14)	14 bar

BALL FLOAT STEAM TRAPS
GA WCB



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A216 WCB	
2	Cover	ASTM A216 WCB	
3	Gasket	316 / GRAPHITE	X
4	Seat	AISI 316	X
5	Valve	AISI 316	X
6	Lever	AISI 316	X
7	Ball float	AISI 316	X
8	Air vent	STAINLESS STEEL	X
9	Bolts	ASTM A193 B7	

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	165	213	71	180	11	211	13.3	205	13.3	211	13.5	222	14
¾"	165	213	71	180	11	215	13.7	207	13.7	211	14.6	230	15
1"	165	213	71	180	11	215	14.5	210	14.5	214	15.2	230	15.5



INSTALLATION

The steam trap must be fitted with the float arm in a horizontal plane so that it rises and falls vertically with the flow direction indicated on the body.

HOW TO SERVICE

By installing a new mechanism assembly (4),(5),(6),if necessary also a ball float (7) and a thermostatic air vent (8), you can bring the steam trap to the " as new from factory " condition. This operation is carried out without removing the trap from yhe pipeline. Always fit a new gasket (3) when reassembling.

How to order: i.e. *GA 14 WCB 1" 150 RF*

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DOUGLAS ITALIA S.P.A.

BALL FLOAT STEAM TRAPS

GA CF8M

BALL FLOAT

Its operating principle is based on the different density between steam and condensate. A float through a simple lever mechanism opens or closes the valve according to the condensate level in the trap. Air discharge is ensured by a thermostatic element.

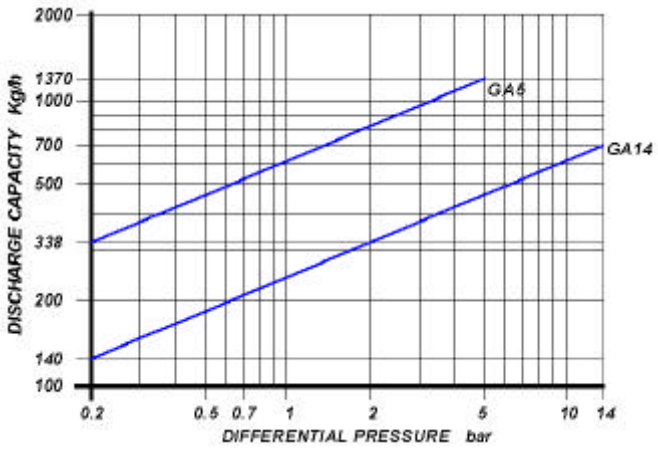
MAIN FEATURES

Continuons discharge. Discharge of condensate at steam temperature. Simple and reliable construction. It does not withstand waterhammer. Suitable on superheated steam

APPLICATIONS

- *Heat exchangers*
- *Heater batteries*
- *Pans*
- *Drying cilinders*
- *Ovens*

DISCHARGE CAPACITY



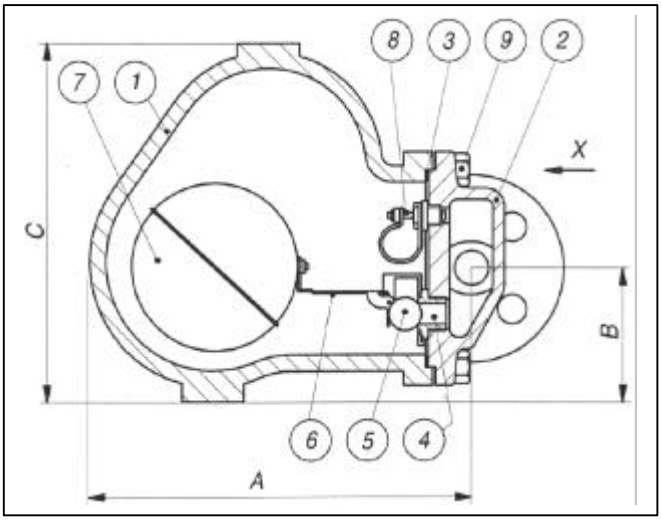
Cold water capacities are 2 to 4 times greater than the above . Safety factor = 1.2 – 1.5

SIZES
½" – ¾" – 1"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

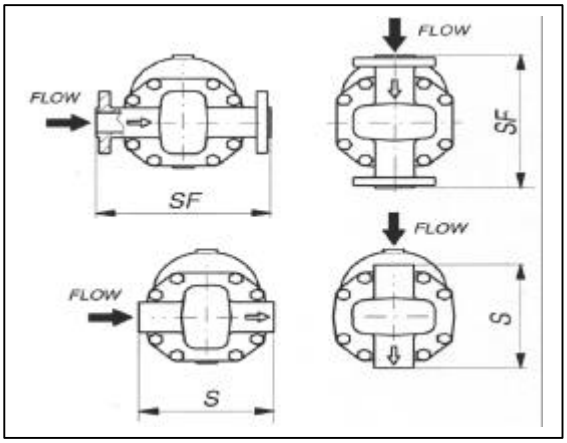
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 150
PMA: Max allowable pressure	20 bar
TMA: max allowable temperature	410°C
PMO: max working pressure	14 bar
TMO: max working temperature	370°C
Max. Differential pressure (GA 5)	5 bar
Max. Differential pressure (GA 14)	14 bar

BALL FLOAT STEAM TRAPS
GA CF8M



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A315 CF8M	
2	Cover	ASTM A315 CF8M	
3	Gasket	316 / GRAPHITE	X
4	Seat	AISI 316	X
5	Valve	AISI 316	X
6	Lever	AISI 316	X
7	Ball float	AISI 316	X
8	Air vent	STAINLESS STEEL	X
9	Bolts	ASTM A193 B8	

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	165	213	71	180	11	211	13.3	205	13.3	211	13.5	222	14
¾"	165	213	71	180	11	215	13.7	207	13.7	211	14.6	230	15
1"	165	213	71	180	11	215	14.5	210	14.5	214	15.2	230	15.5



INSTALLATION

The steam trap must be fitted with the float arm in a horizontal plane so that it rises and falls vertically with the flow direction indicated on the body.

HOW TO SERVICE

By installing a new mechanism assembly (4),(5),(6),if necessary also a ball float (7) and a thermostatic air vent (8), you can bring the steam trap to the " as new from factory " condition. This operation is carried out without removing the trap from yhe pipeline. Always fit a new gasket (3) when reassembling.

How to order: i.e. *GA 14 CF8M 1" 150 RF*

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DOUGLAS ITALIA S.P.A.

BALL FLOAT STEAM TRAPS

GB WCB

BALL FLOAT

Its operating principle is based on the different density between steam and condensate. A float through a simple lever mechanism opens or closes the valve according to the condensate level in the trap. Air discharge is ensured by a thermostatic element.

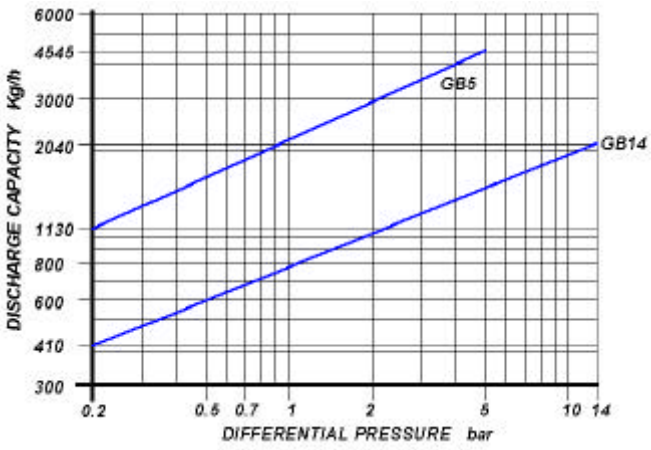
MAIN FEATURES

Continuons discharge. Discharge of condensate at steam temperature. Simple and reliable construction. It does not withstand waterhammer. Suitable on superheated steam

APPLICATIONS

- *Heat exchangers*
- *Heater batteries*
- *Pans*
- *Drying cilinders*
- *Ovens*

DISCHARGE CAPACITY



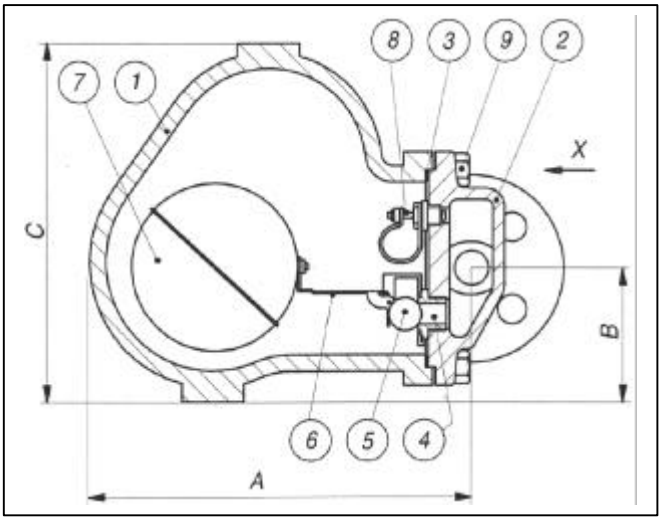
Cold water capacities are 2 to 4 times greater than the above .
Safety factor = 1.2 – 1.5

SIZES
½" – ¾" – 1"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

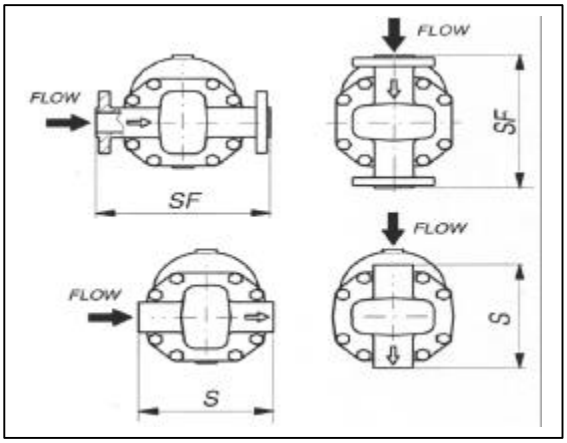
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 150
PMA: Max allowable pressure	20 bar
TMA: max allowable temperature	350°C
PMO: max working pressure	14 bar
TMO: max working temperature	300°C
Max. Differential pressure (GB 5)	5 bar
Max. Differential pressure (GB 14)	14 bar

BALL FLOAT STEAM TRAPS
GB WCB



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A216 WCB	
2	Cover	ASTM A216 WCB	
3	Gasket	316 / GRAPHITE	X
4	Seat	AISI 316	X
5	Valve	AISI 316	X
6	Lever	AISI 316	X
7	Ball float	AISI 316	X
8	Air vent	STAINLESS STEEL	X
9	Bolts	ASTM A193 B7	

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	165	238	81	218	13	211	15.2	205	15.2	211	15.5	222	16
¾"	165	238	81	218	13	215	15.3	207	15.3	211	15.5	230	16.5
1"	165	238	81	218	13	215	16.5	210	16.5	214	16.7	230	17.5



INSTALLATION

The steam trap must be fitted with the float arm in a horizontal plane so that it rises and falls vertically with the flow direction indicated on the body.

HOW TO SERVICE

By installing a new mechanism assembly (4),(5),(6),if necessary also a ball float (7) and a thermostatic air vent (8), you can bring the steam trap to the " as new from factory " condition. This operation is carried out without removing the trap from yhe pipeline. Always fit a new gasket (3) when reassembling.

How to order: i.e. *GB 14 WCB ¾" NPT*

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

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DOUGLAS ITALIA S.P.A.

BALL FLOAT STEAM TRAPS

GB CF8M

BALL FLOAT

Its operating principle is based on the different density between steam and condensate. A float through a simple lever mechanism opens or closes the valve according to the condensate level in the trap. Air discharge is ensured by a thermostatic element.

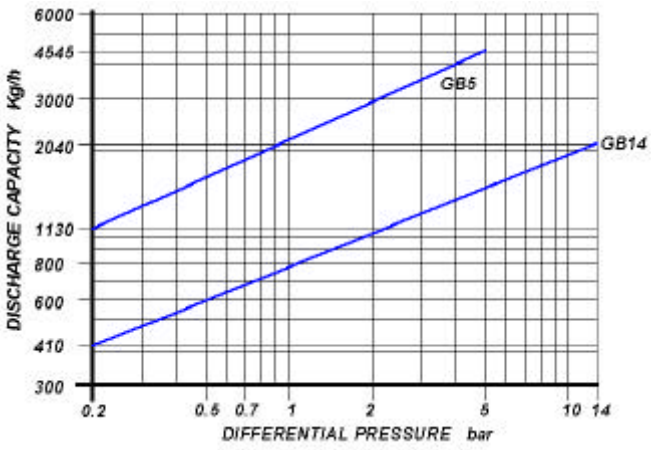
MAIN FEATURES

Continuons discharge. Discharge of condensate at steam temperature. Simple and reliable construction. It does not withstand waterhammer. Suitable on superheated steam

APPLICATIONS

- ❑ *Heat exchangers*
- ❑ *Heater batteries*
- ❑ *Pans*
- ❑ *Drying cilinders*
- ❑ *Ovens*

DISCHARGE CAPACITY



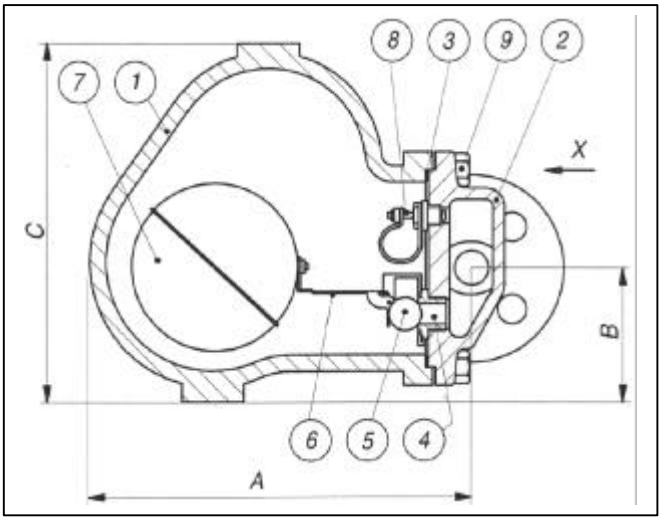
Cold water capacities are 2 to 4 times greater than the above . Safety factor = 1.2 – 1.5

SIZES
½" – ¾" – 1"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

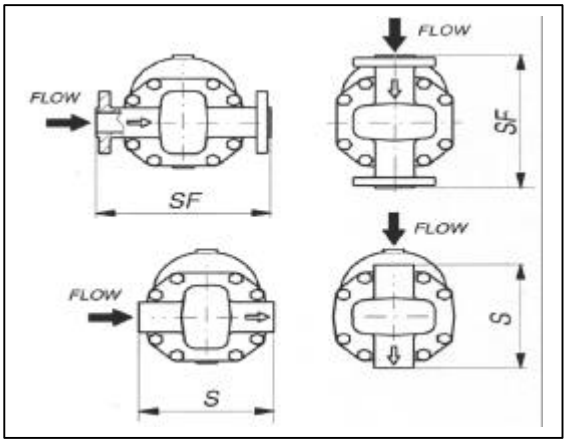
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 150
PMA: Max allowable pressure	20 bar
TMA: max allowable temperature	410°C
PMO: max working pressure	14 bar
TMO: max working temperature	370°C
Max. Differential pressure (GB 5)	5 bar
Max. Differential pressure (GB 14)	14 bar

BALL FLOAT STEAM TRAPS
GB CF8M



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A315 CF8M	
2	Cover	ASTM A315 CF8M	
3	Gasket	316 / GRAPHITE	X
4	Seat	AISI 316	X
5	Valve	AISI 316	X
6	Lever	AISI 316	X
7	Ball float	AISI 316	X
8	Air vent	STAINLESS STEEL	X
9	Bolts	ASTM A193 B8	

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	165	238	81	218	13	211	15.2	205	15.2	211	15.5	222	16
¾"	165	238	81	218	13	215	15.3	207	15.3	211	15.5	230	16.5
1"	165	238	81	218	13	215	16.5	210	16.5	214	16.7	230	17.5



INSTALLATION

The steam trap must be fitted with the float arm in a horizontal plane so that it rises and falls vertically with the flow direction indicated on the body.

HOW TO SERVICE

By installing a new mechanism assembly (4),(5),(6),if necessary also a ball float (7) and a thermostatic air vent (8), you can bring the steam trap to the " as new from factory " condition. This operation is carried out without removing the trap from yhe pipeline. Always fit a new gasket (3) when reassembling.

How to order: i.e. *GB 14 CF8M ¾" NPT*

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

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DOUGLAS ITALIA S.P.A.

BALL FLOAT STEAM TRAPS

GC WCB

BALL FLOAT

Its operating principle is based on the different density between steam and condensate. A float through a simple lever mechanism opens or closes the valve according to the condensate level in the trap. Air discharge is ensured by a thermostatic element.

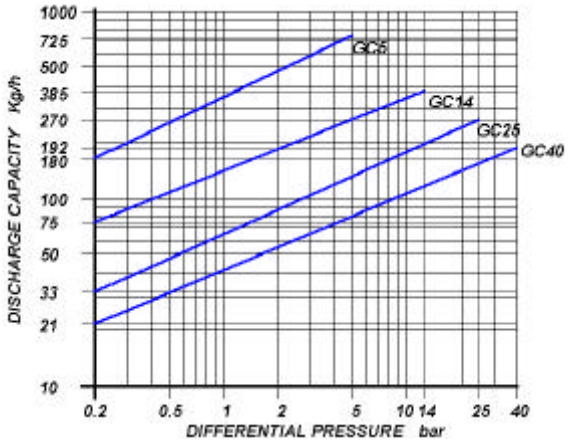
MAIN FEATURES

Continuons discharge. Discharge of condensate at steam temperature. Simple and reliable construction. It does not withstand waterhammer. Suitable on superheated steam

APPLICATIONS

- *Heat exchangers*
- *Heater batteries*
- *Pans*
- *Drying cilinders*
- *Ovens*

DISCHARGE CAPACITY



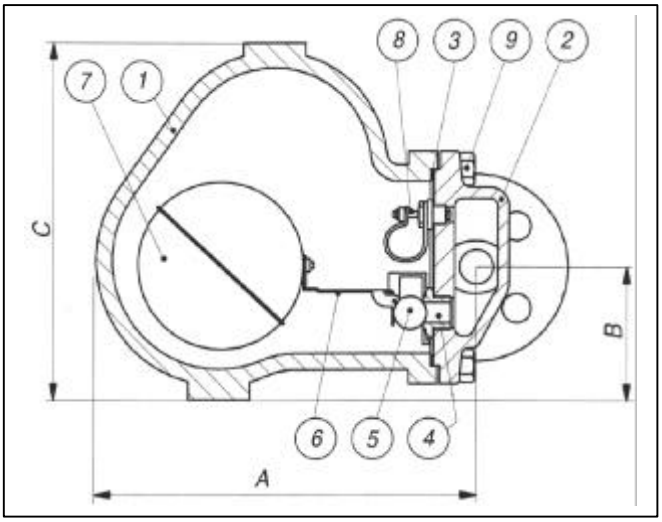
Cold water capacities are 2 to 4 times greater than the above .
Safety factor = 1.2 – 1.5

SIZES
½" – ¾" – 1"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

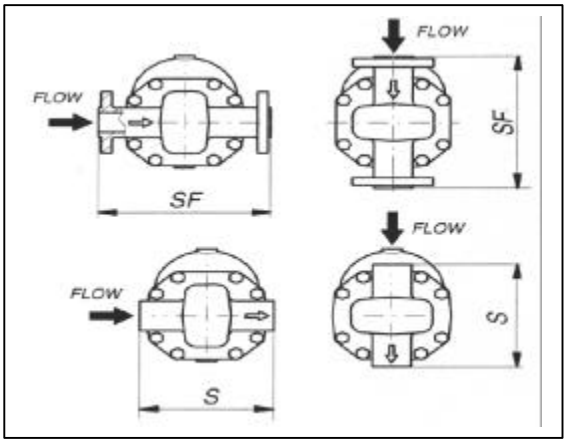
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 300
PMA: Max allowable pressure	50 bar
TMA: max allowable temperature	350°C
PMO: max working pressure	40 bar
TMO: max working temperature	300°C
Max. Differential pressure (GC 5)	5 bar
Max. Differential pressure (GC 14)	14 bar
Max. Differential pressure (GC 25)	25 bar
Max. Differential pressure (GC 40)	40 bar

BALL FLOAT STEAM TRAPS
GC WCB



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A216 WCB	
2	Cover	ASTM A216 WCB	
3	Gasket	316 / GRAPHITE	X
4	Seat	AISI 316	X
5	Valve	AISI 316	X
6	Lever	AISI 316	X
7	Ball float	AISI 316	X
8	Air vent	STAINLESS STEEL	X
9	Bolts	ASTM A193 B7	

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	165	213	71	180	11	211	13.3	205	13.3	211	13.5	222	14
¾"	165	213	71	180	11	215	13.7	207	13.7	211	14.6	230	15
1"	165	213	71	180	11	215	14.5	210	14.5	214	15.2	230	15.5



INSTALLATION

The steam trap must be fitted with the float arm in a horizontal plane so that it rises and falls vertically with the flow direction indicated on the body.

HOW TO SERVICE

By installing a new mechanism assembly (4),(5),(6),if necessary also a ball float (7) and a thermostatic air vent (8), you can bring the steam trap to the " as new from factory " condition. This operation is carried out without removing the trap from yhe pipeline. Always fit a new gasket (3) when reassembling.

How to order: i.e. *GC 25 WCB 1" 300 RF*

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

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DOUGLAS ITALIA S.P.A.

BALL FLOAT STEAM TRAPS
GC CF8M

BALL FLOAT

Its operating principle is based on the different density between steam and condensate. A float through a simple lever mechanism opens or closes the valve according to the condensate level in the trap. Air discharge is ensured by a thermostatic element.

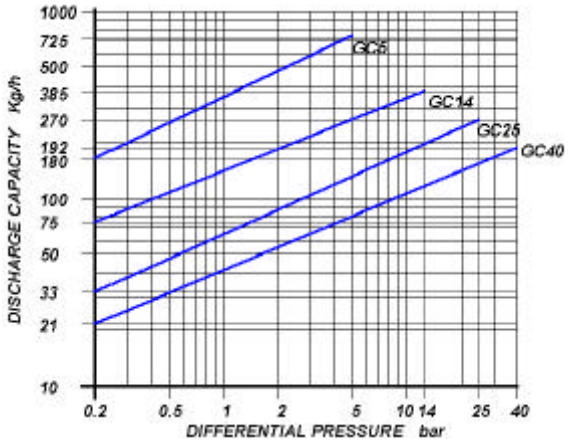
MAIN FEATURES

Continuons discharge. Discharge of condensate at steam temperature. Simple and reliable construction. It does not withstand waterhammer. Suitable on superheated steam

APPLICATIONS

- *Heat exchangers*
- *Heater batteries*
- *Pans*
- *Drying cilinders*
- *Ovens*

DISCHARGE CAPACITY



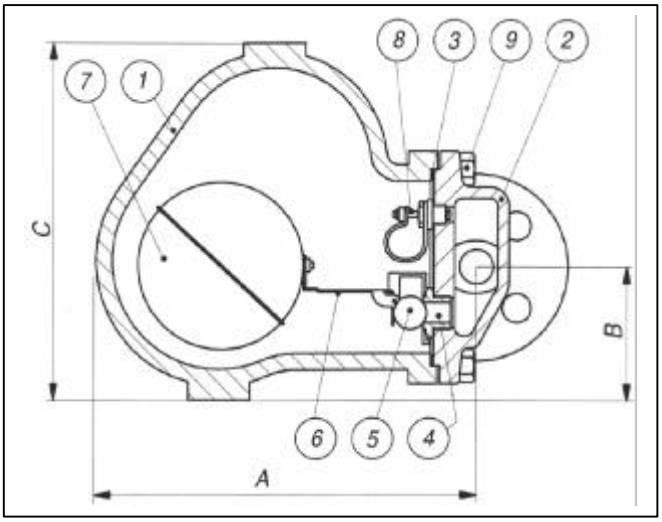
Cold water capacities are 2 to 4 times greater than the above . Safety factor = 1.2 – 1.5

SIZES
½" – ¾" – 1"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

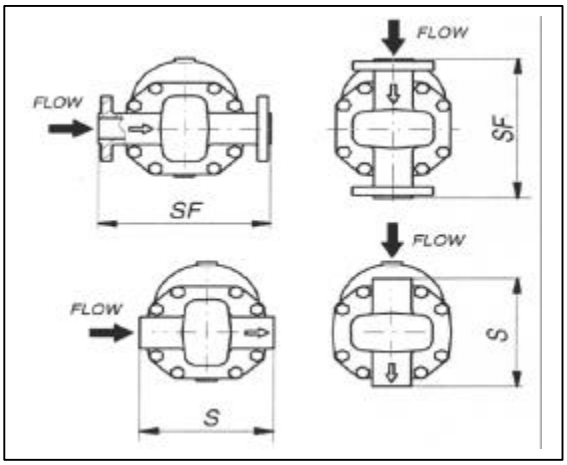
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 300
PMA: Max allowable pressure	50 bar
TMA: max allowable temperature	410°C
PMO: max working pressure	40 bar
TMO: max working temperature	370°C
Max. Differential pressure (GC 5)	5 bar
Max. Differential pressure (GC 14)	14 bar
Max. Differential pressure (GC 25)	25 bar
Max. Differential pressure (GC 40)	40 bar

BALL FLOAT STEAM TRAPS
GC CF8M



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A351 CF8M	
2	Cover	ASTM A351 CF8M	
3	Gasket	316 / GRAPHITE	X
4	Seat	AISI 316	X
5	Valve	AISI 316	X
6	Lever	AISI 316	X
7	Ball float	AISI 316	X
8	Air vent	STAINLESS STEEL	X
9	Bolts	ASTM A193 B8	

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	165	213	71	180	11	211	13.3	205	13.3	211	13.5	222	14
¾"	165	213	71	180	11	215	13.7	207	13.7	211	14.6	230	15
1"	165	213	71	180	11	215	14.5	210	14.5	214	15.2	230	15.5



INSTALLATION

The steam trap must be fitted with the float arm in a horizontal plane so that it rises and falls vertically with the flow direction indicated on the body.

HOW TO SERVICE

By installing a new mechanism assembly (4),(5),(6),if necessary also a ball float (7) and a thermostatic air vent (8), you can bring the steam trap to the " as new from factory " condition. This operation is carried out without removing the trap from yhe pipeline. Always fit a new gasket (3) when reassembling.

How to order: i.e. *GC 25 CF8M 1" 300 RF*

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DOUGLAS ITALIA S.P.A.

BALL FLOAT STEAM TRAPS
GD WCB

BALL FLOAT

Its operating principle is based on the different density between steam and condensate. A float through a simple lever mechanism opens or closes the valve according to the condensate level in the trap. Air discharge is ensured by a thermostatic element.

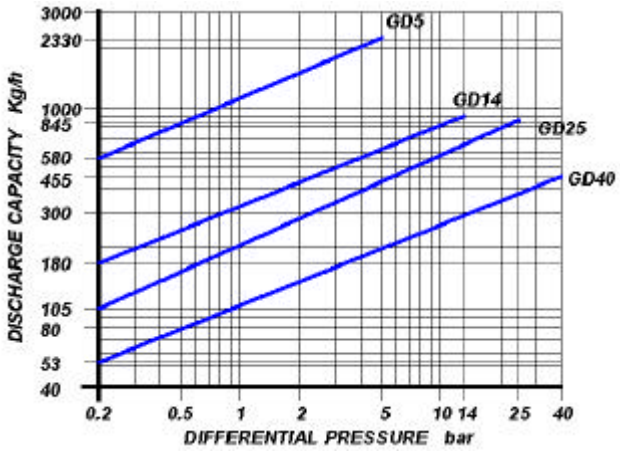
MAIN FEATURES

Continuons discharge. Discharge of condensate at steam temperature. Simple and reliable construction. It does not withstand waterhammer. Suitable on superheated steam

APPLICATIONS

- *Heat exchangers*
- *Heater batteries*
- *Pans*
- *Drying cilinders*
- *Ovens*

DISCHARGE CAPACITY



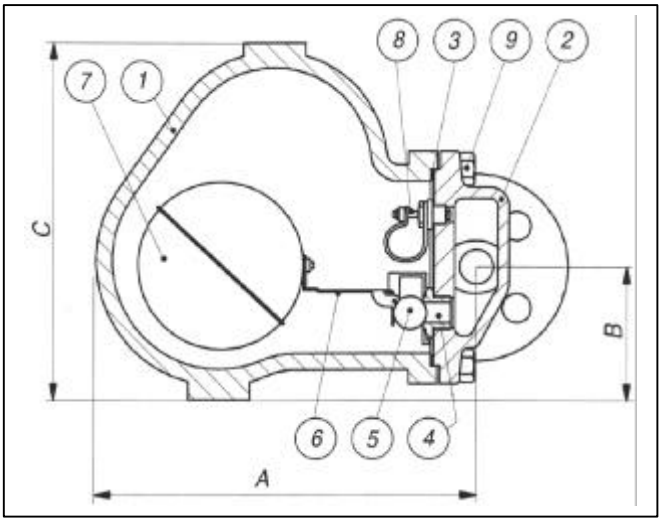
Cold water capacities are 2 to 4 times greater than the above . Safety factor = 1.2 – 1.5

SIZES
½" – ¾" – 1"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

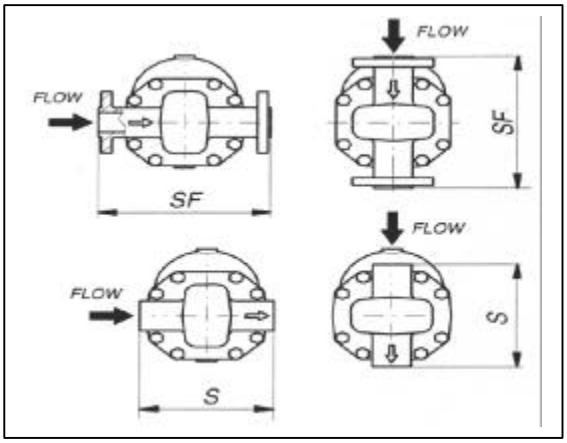
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 300
PMA: Max allowable pressure	50 bar
TMA: max allowable temperature	350°C
PMO: max working pressure	40 bar
TMO: max working temperature	300°C
Max. Differential pressure (GD 5)	5 bar
Max. Differential pressure (GD 14)	14 bar
Max. Differential pressure (GD 25)	25 bar
Max. Differential pressure (GD 40)	40 bar

BALL FLOAT STEAM TRAPS
GD WCB



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A216 WCB	
2	Cover	ASTM A216 WCB	
3	Gasket	316 / GRAPHITE	X
4	Seat	AISI 316	X
5	Valve	AISI 316	X
6	Lever	AISI 316	X
7	Ball float	AISI 316	X
8	Air vent	STAINLESS STEEL	X
9	Bolts	ASTM A193 B7	

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	165	238	81	218	13	211	15.2	205	15.2	211	15.5	222	16
¾"	165	238	81	218	13	215	15.3	207	15.3	211	15.5	230	16.5
1"	165	238	81	218	13	215	16.5	210	16.5	214	16.7	230	17.5



INSTALLATION

The steam trap must be fitted with the float arm in a horizontal plane so that it rises and falls vertically with the flow direction indicated on the body.

HOW TO SERVICE

By installing a new mechanism assembly (4),(5),(6),if necessary also a ball float (7) and a thermostatic air vent (8), you can bring the steam trap to the " as new from factory " condition. This operation is carried out without removing the trap from yhe pipeline. Always fit a new gasket (3) when reassembling.

How to order: i.e. GD 40 WCB ¾" PN 40

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DOUGLAS ITALIA S.P.A.

BALL FLOAT STEAM TRAPS

GD CF8M

BALL FLOAT

Its operating principle is based on the different density between steam and condensate. A float through a simple lever mechanism opens or closes the valve according to the condensate level in the trap. Air discharge is ensured by a thermostatic element.

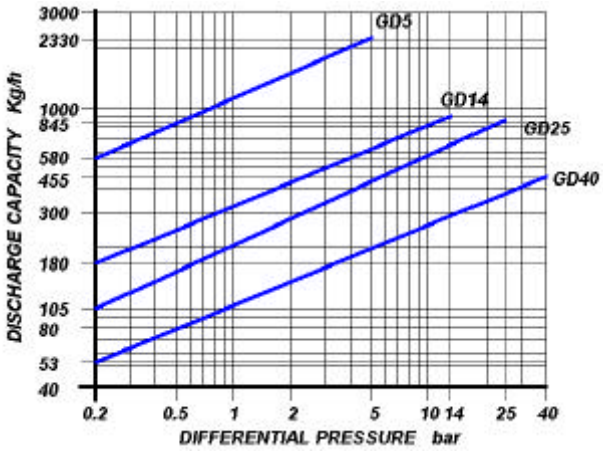
MAIN FEATURES

Continuons discharge. Discharge of condensate at steam temperature. Simple and reliable construction. It does not withstand waterhammer. Suitable on superheated steam

APPLICATIONS

- *Heat exchangers*
- *Heater batteries*
- *Pans*
- *Drying cilinders*
- *Ovens*

DISCHARGE CAPACITY



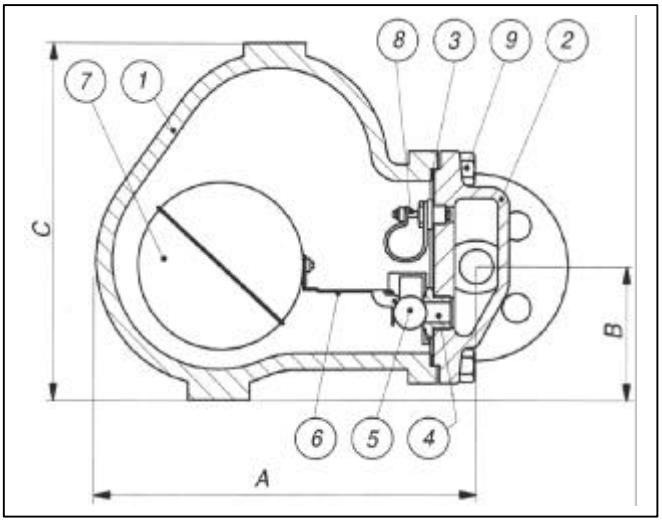
Cold water capacities are 2 to 4 times greater than the above . Safety factor = 1.2 – 1.5

SIZES
½" – ¾" – 1"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

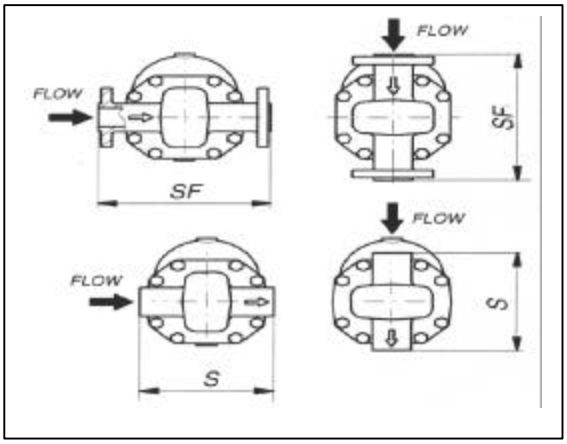
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 300
PMA: Max allowable pressure	50 bar
TMA: max allowable temperature	410°C
PMO: max working pressure	40 bar
TMO: max working temperature	370°C
Max. Differential pressure (GD 5)	5 bar
Max. Differential pressure (GD 14)	14 bar
Max. Differential pressure (GD 25)	25 bar
Max. Differential pressure (GD 40)	40 bar

BALL FLOAT STEAM TRAPS
GD CF8M



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A351 CF8M	
2	Cover	ASTM A351 CF8M	
3	Gasket	316 / GRAPHITE	X
4	Seat	AISI 316	X
5	Valve	AISI 316	X
6	Lever	AISI 316	X
7	Ball float	AISI 316	X
8	Air vent	STAINLESS STEEL	X
9	Bolts	ASTM A193 B8	

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	165	238	81	218	13	211	15.2	205	15.2	211	15.5	222	16
¾"	165	238	81	218	13	215	15.3	207	15.3	211	15.5	230	16.5
1"	165	238	81	218	13	215	16.5	210	16.5	214	16.7	230	17.5



INSTALLATION

The steam trap must be fitted with the float arm in a horizontal plane so that it rises and falls vertically with the flow direction indicated on the body.

HOW TO SERVICE

By installing a new mechanism assembly (4),(5),(6),if necessary also a ball float (7) and a thermostatic air vent (8), you can bring the steam trap to the " as new from factory " condition. This operation is carried out without removing the trap from yhe pipeline. Always fit a new gasket (3) when reassembling.

How to order: i.e. GD 40 CF8M ¾" PN 40

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DOUGLAS ITALIA S.P.A.

BALL FLOAT STEAM TRAPS
GE WCB

BALL FLOAT

Its operating principle is based on the different density between steam and condensate. A float through a simple lever mechanism opens or closes the valve according to the condensate level in the trap. Air discharge is ensured by a thermostatic element.

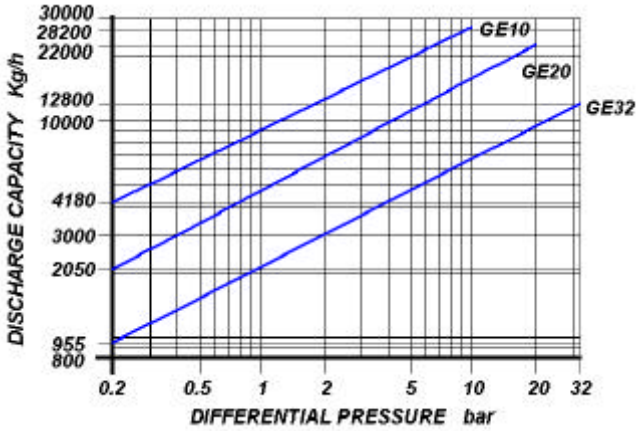
MAIN FEATURES

Continuons discharge. Discharge of condensate at steam temperature. Simple and reliable construction. It does not withstand waterhammer. Suitable on superheated steam

APPLICATIONS

- *Heat exchangers*
- *Heater batteries*
- *Pans*
- *Drying cilinders*
- *Ovens*

DISCHARGE CAPACITY



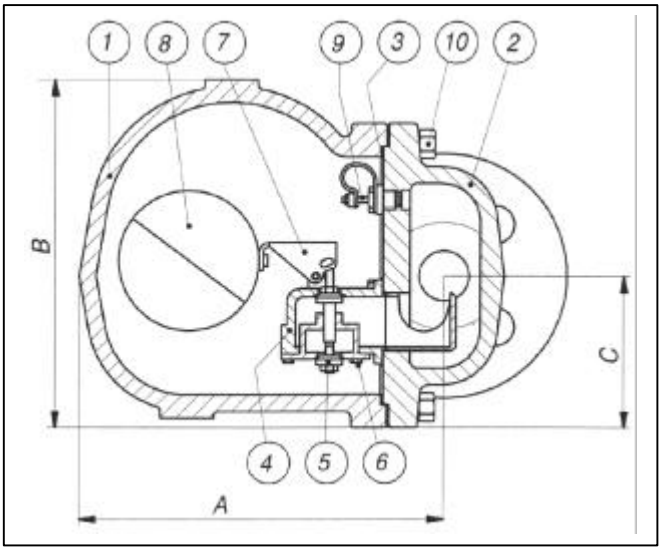
Cold water capacities are 2 to 4 times greater than the above . Safety factor = 1.2 – 1.5

SIZES
1½" – 2"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

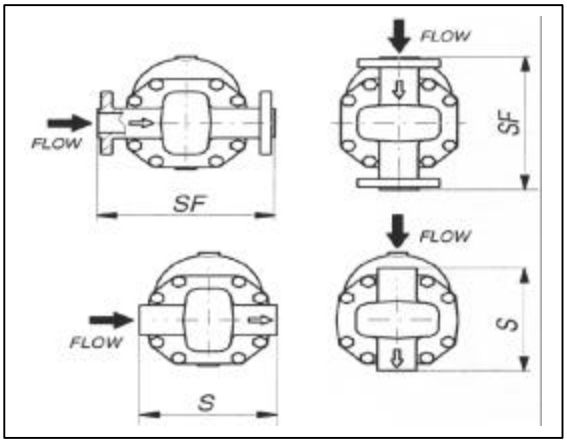
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 300
PMA: Max allowable pressure	50 bar
TMA: max allowable temperature	350°C
PMO: max working pressure	40 bar
TMO: max working temperature	300°C
Max. Differential pressure (GE 10)	10 bar
Max. Differential pressure (GE 20)	20 bar
Max. Differential pressure (GE 32)	32 bar

BALL FLOAT STEAM TRAPS
GE WCB



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A216 WCB	
2	Cover	ASTM A216 WCB	
3	Gasket	316 / GRAPHITE	X
4	Seat	AISI 316	X
5	Valve	AISI 316	X
6	Screws	STAINLESS STEEL	X
7	Lever	AISI 316	X
8	Ball float	AISI 316	X
9	Air vent	STAINLESS STEEL	
10	Bolts	ASTM A193 B7	

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
1½"	260	258	250	109	34	320	37	320	37	320	39	320	41
"2"	260	258	250	109	34	320	38	320	38	320	40	320	42



INSTALLATION

The steam trap must be fitted with the float arm in a horizontal plane so that it rises and falls vertically with the flow direction indicated on the body.

HOW TO SERVICE

By installing a new mechanism assembly (4),(5),(6),(7), if necessary also a ball float (8) and a thermostatic air vent (9), you can bring the steam trap to the " as new from factory " condition. This operation is carried out without removing the trap from yhe pipeline. Always fit a new gasket (3) when reassembling.

How to order: i.e. *GE 20 WCB 2" 600 RF*

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DOUGLAS ITALIA S.P.A.

BALL FLOAT STEAM TRAPS
GE CF8M

BALL FLOAT

Its operating principle is based on the different density between steam and condensate. A float through a simple lever mechanism opens or closes the valve according to the condensate level in the trap. Air discharge is ensured by a thermostatic element.

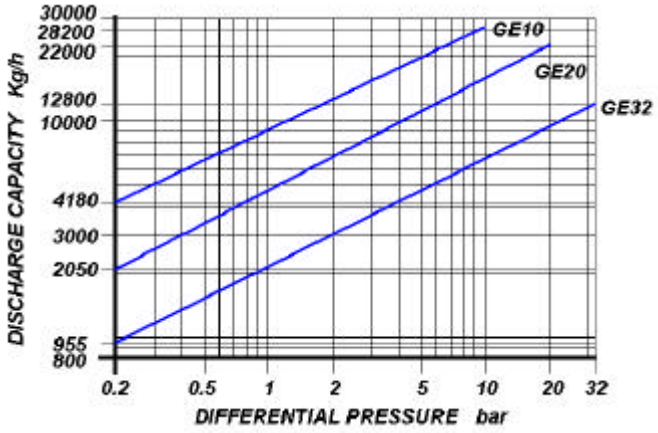
MAIN FEATURES

Continuons discharge. Discharge of condensate at steam temperature. Simple and reliable construction. It does not withstand waterhammer. Suitable on superheated steam

APPLICATIONS

- *Heat exchangers*
- *Heater batteries*
- *Pans*
- *Drying cilinders*
- *Ovens*

DISCHARGE CAPACITY



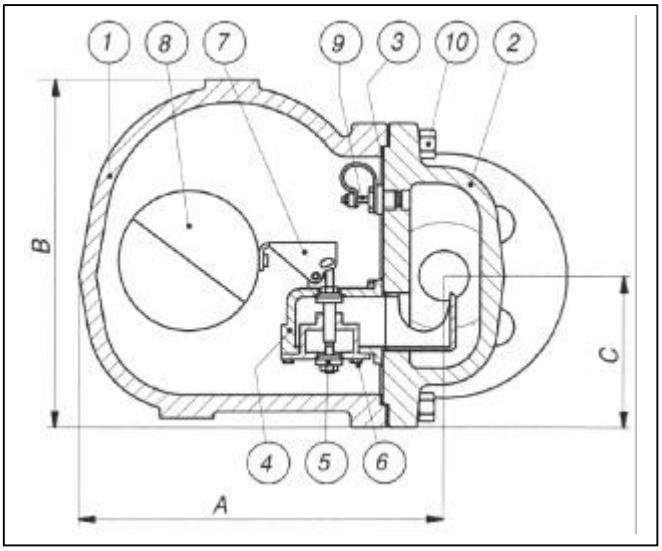
Cold water capacities are 2 to 4 times greater than the above . Safety factor = 1.2 – 1.5

SIZES
1½" – 2"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

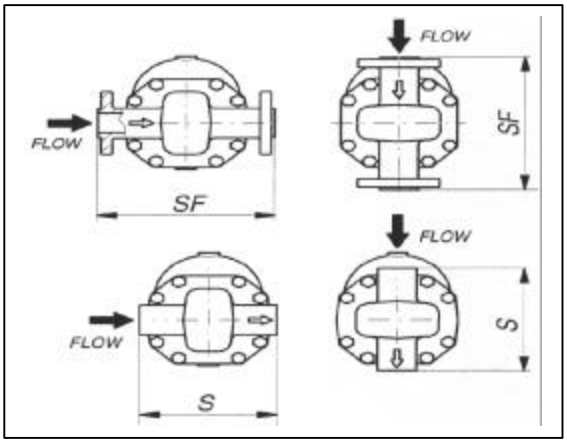
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 300
PMA: Max allowable pressure	50 bar
TMA: max allowable temperature	410°C
PMO: max working pressure	40 bar
TMO: max working temperature	370°C
Max. Differential pressure (GE 10)	10 bar
Max. Differential pressure (GE 20)	20 bar
Max. Differential pressure (GE 32)	32 bar

BALL FLOAT STEAM TRAPS
GE CF8M



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A351 CF8M	
2	Cover	ASTM A351 CF8M	
3	Gasket	316 / GRAPHITE	X
4	Seat	AISI 316	X
5	Valve	AISI 316	X
6	Screws	STAINLESS STEEL	X
7	Lever	AISI 316	X
8	Ball float	AISI 316	X
9	Air vent	STAINLESS STEEL	
10	Bolts	ASTM A193 B8	

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
1½"	260	258	250	109	34	320	37	320	37	320	39	320	41
"2"	260	258	250	109	34	320	38	320	38	320	40	320	42



INSTALLATION

The steam trap must be fitted with the float arm in a horizontal plane so that it rises and falls vertically with the flow direction indicated on the body.

HOW TO SERVICE

By installing a new mechanism assembly (4),(5),(6),(7), if necessary also a ball float (8) and a thermostatic air vent (9), you can bring the steam trap to the " as new from factory " condition. This operation is carried out without removing the trap from yhe pipeline. Always fit a new gasket (3) when reassembling.

How to order: i.e. *GE 20 CF8M 2" 600 RF*

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

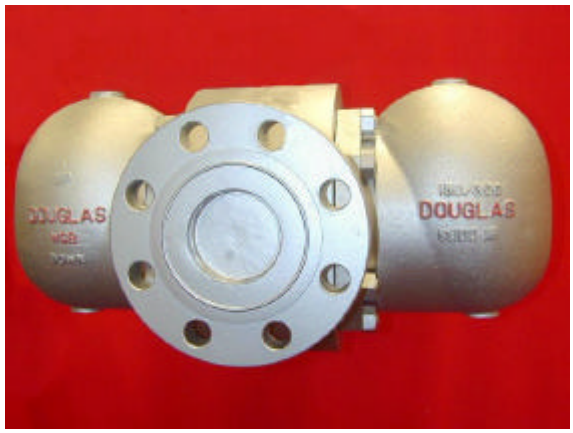
OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

BALL FLOAT
STEAM TRAPS HIGH CAPACITY
GE WCB

BALL FLOAT

Its operating principle is based on the different density between steam and condensate. A float through a simple lever mechanism opens or closes the valve according to the condensate level in the trap. Air discharge is ensured by a thermostatic element.



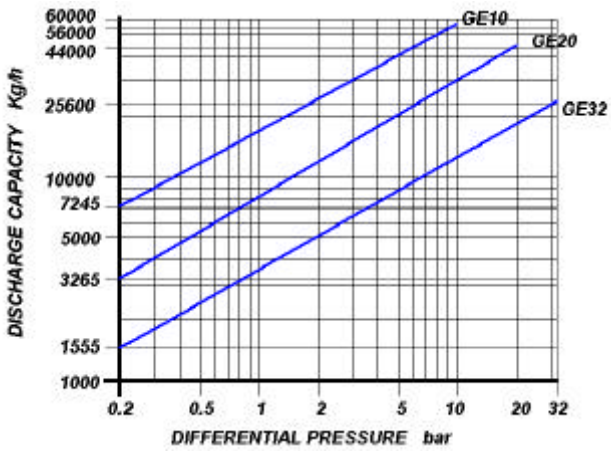
MAIN FEATURES

Continuons discharge. Discharge of condensate at steam temperature. Simple and reliable construction. It does not withstand waterhammer. Suitable on superheated steam

APPLICATIONS

- *Heat exchangers*
- *Heater batteries*
- *Pans*
- *Drying cilinders*
- *Ovens*

DISCHARGE CAPACITY



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

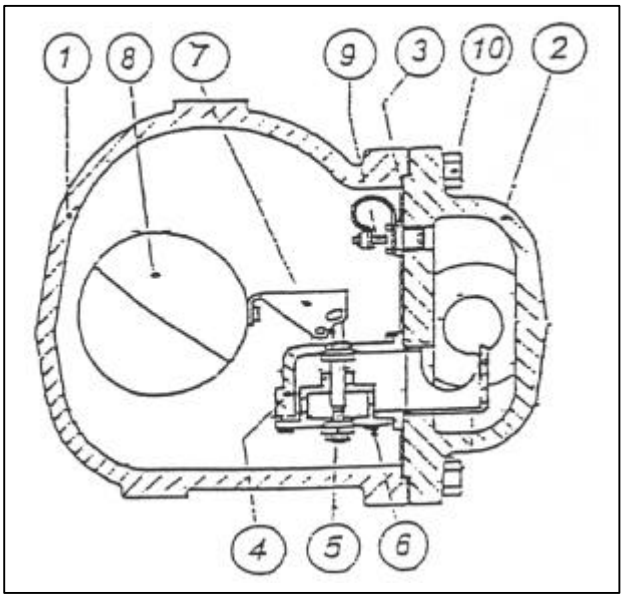
SIZES
3" – 4"

CONNECTIONS	
FLANGED	*ANSI B16.5 / UNI / DIN*

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	*ANSI 300*
PMA: Max allowable pressure	*50 bar*
TMA: max allowable temperature	*350°C*
PMO: max working pressure	*40 bar*
TMO: max working temperature	*300°C*
Max. Differential pressure (GE 10)	*10 bar*
Max. Differential pressure (GE 20)	*20 bar*
Max. Differential pressure (GE 32)	*32 bar*

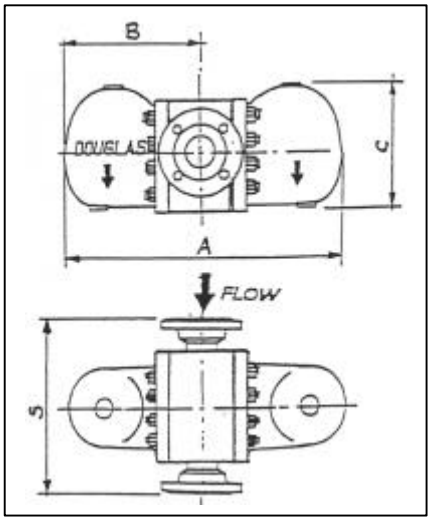
BALL FLOAT STEAM TRAPS HIGH CAPACITY

GE WCB



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A216 WCB	
2	Cover	ASTM A216 WCB	
3	Gasket	316 / GRAPHITE	X
4	Seat	AISI 316	X
5	Valve	AISI 316	X
6	Screws	STAINLESS STEEL	X
7	Lever	AISI 316	X
8	Ball float	AISI 316	X
9	Air vent	STAINLESS STEEL	
10	Bolts	ASTM A193 B7	

Size (inches)	S	A	B	C	Weight (Kg)
3”	370	590	295	245	90
4”	402	590	295	245	98



INSTALLATION

The steam trap must be fitted with the float arm in a horizontal plane so that it rises and falls vertically with the flow direction indicated on the body.

HOW TO SERVICE

By installing a new mechanism assembly (4),(5),(6),(7), if necessary also a ball float (8) and a thermostatic air vent (9), you can bring the steam trap to the “ as new from factory “ condition. This operation is carried out without removing the trap from yhe pipeline. Always fit a new gasket (3) when reassembling.

How to order: i.e. *GE 20 WCB*

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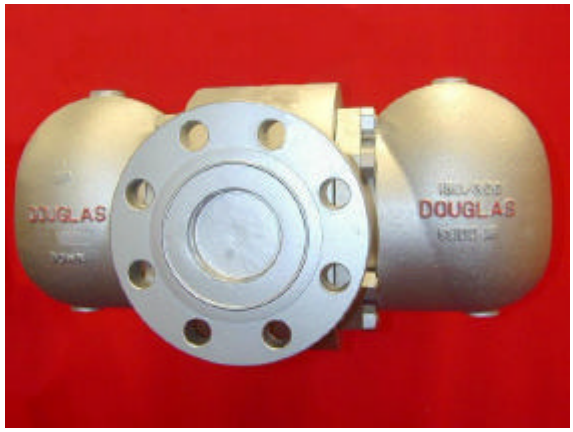
DOUGLAS ITALIA S.P.A.

BALL FLOAT
STEAM TRAPS HIGH CAPACITY
GE CF8M

BALL FLOAT

Its operating principle is based on the different density between steam and condensate. A float through a simple lever mechanism opens or closes the valve according to the condensate level in the trap. Air discharge is ensured by a thermostatic element.



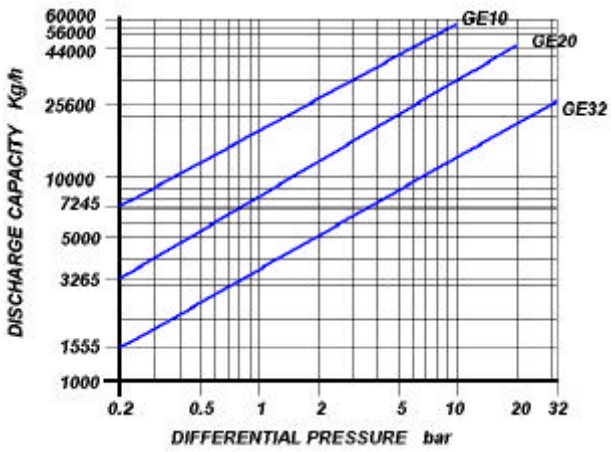
MAIN FEATURES

Continuons discharge. Discharge of condensate at steam temperature. Simple and reliable construction. It does not withstand waterhammer. Suitable on superheated steam

APPLICATIONS

- *Heat exchangers*
- *Heater batteries*
- *Pans*
- *Drying cilinders*
- *Ovens*

DISCHARGE CAPACITY



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

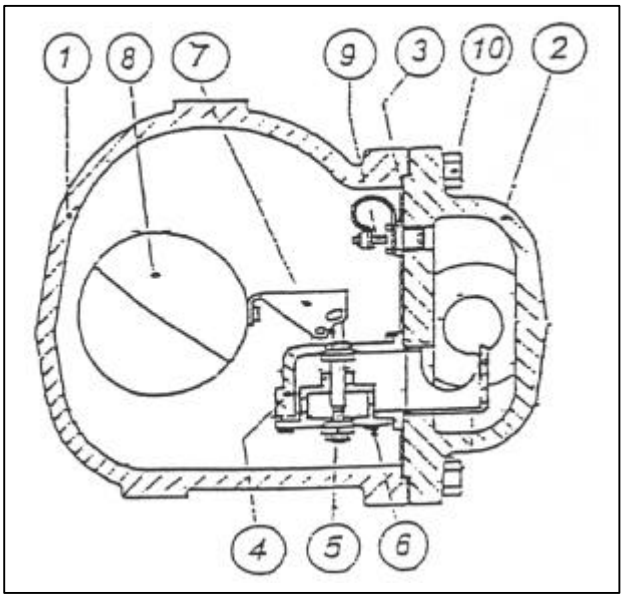
SIZES
3" – 4"

CONNECTIONS	
FLANGED	*ANSI B16.5 / UNI / DIN*

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	*ANSI 300*
PMA: Max allowable pressure	*50 bar*
TMA: max allowable temperature	*410°C*
PMO: max working pressure	*40 bar*
TMO: max working temperature	*370°C*
Max. Differential pressure (GE 10)	*10 bar*
Max. Differential pressure (GE 20)	*20 bar*
Max. Differential pressure (GE 32)	*32 bar*

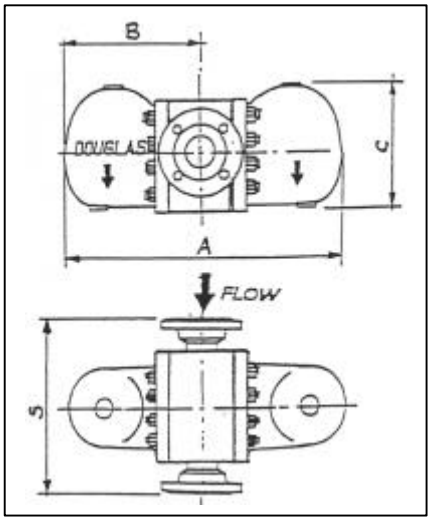
BALL FLOAT STEAM TRAPS HIGH CAPACITY

GE CF8M



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A351 CF8M	
2	Cover	ASTM A351 CF8M	
3	Gasket	316 / GRAPHITE	X
4	Seat	AISI 316	X
5	Valve	AISI 316	X
6	Screws	STAINLESS STEEL	X
7	Lever	AISI 316	X
8	Ball float	AISI 316	X
9	Air vent	STAINLESS STEEL	
10	Bolts	ASTM A193 B8	

Size (inches)	S	A	B	C	Weight (Kg)
3”	370	590	295	245	90
4”	402	590	295	245	98



INSTALLATION

The steam trap must be fitted with the float arm in a horizontal plane so that it rises and falls vertically with the flow direction indicated on the body.

HOW TO SERVICE

By installing a new mechanism assembly (4),(5),(6),(7), if necessary also a ball float (8) and a thermostatic air vent (9), you can bring the steam trap to the “ as new from factory “ condition. This operation is carried out without removing the trap from yhe pipeline. Always fit a new gasket (3) when reassembling.

How to order: i.e. *GE 20 CF8M*

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DOUGLAS ITALIA

COMPRESSED AIR TRAPS

GO BACK

DOUGLAS ITALIA

COMPRESSED AIR TRAPS

- LK
- GT
- GV
- GZ
- GX WCB
- GX CF8M
- GY WCB
- GY CF8M
- GK WCB
- GK CF8M

GO BACK

DOUGLAS ITALIA S.P.A.

BALL FLOAT COMPRESSED AIR TRAPS
LK

DESCRIPTION

A range of float operated traps for draining water from compressed air lines.
Applications on aftercoolers , separators , compressed air mains.

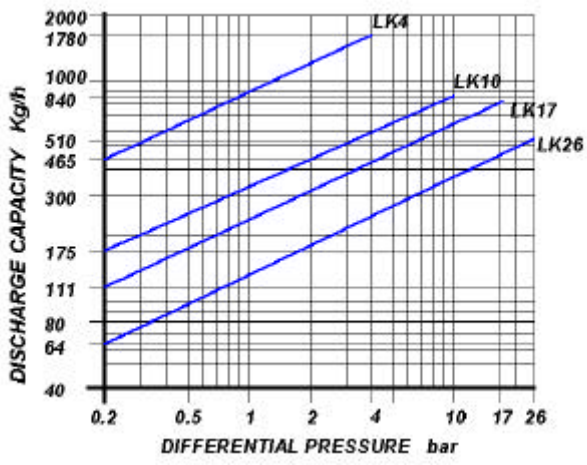
MAIN FEATURES

Direct-acting float valve permits continuons drainage of water under changing conditions of inlet pressure and load. Because valve is under water during operation , air leakage is eliminated. Properly located it will assure a supply of dry compressed air.

OPERATION

Water entering the trap lifts the float and opens the discharge valve. This adjusts the valve opening so that there is a continuons flow of water througt the trap. There are no pressure fluctuations as the trap opens and closes.

DISCHARGE CAPACITY



Safety factor = 1.2 – 1.5

SIZES

½" – ¾"

CONNECTIONS

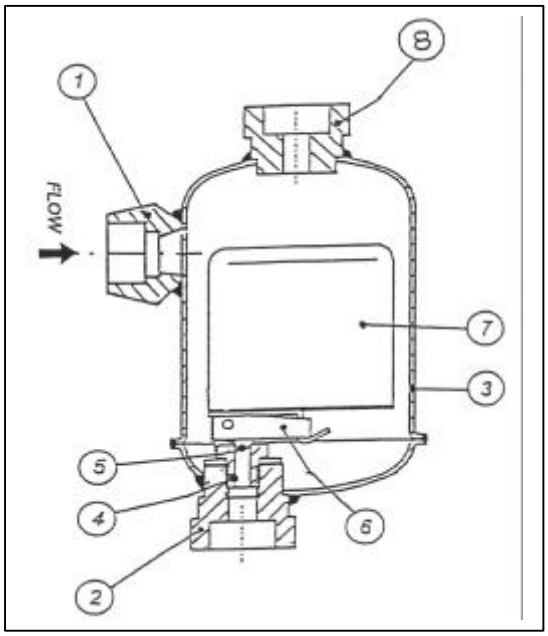
Screwed	BS 21 (BSP) /ANSI B1.20.1 (NPT)
Socket weld	ANSI B 16.11
Flanged	ANSI B 16.5 / UNI/DIN

LIMITING CONDITIONS (according to ISO 6552)

Steam Trap rating	ANSI 300
PMA: Max allowable pressure	50 bar
TMA: max allowable temperature	500°C
PMO: max working pressure	26 bar
TMO: max working temperature	380°C
Minimum liquid specific weigth	0.6 Kg/dm3
Max. Differential pressure (LK 4)	4 bar
Max. Differential pressure (LK 10)	10 bar
Max. Differential pressure (LK 17)	17 bar
Max. Differential pressure (LK 26)	26 bar

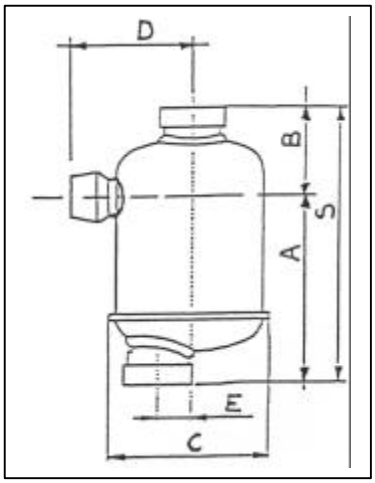
COMPRESSED AIR BALL FLOAT TRAPS

LK



POS.	DESCRIPTION	MATERIALS	SPARES
1	Inlet coupling	AISI 304	
2	Outlet coupling	AISI 304	
3	Body	AISI 304	
4	Seat	AISI 410	
5	Valve	AISI 410	
6	Lever	AISI 304	
7	Float	AISI 304	
8	Equalizing connection	AISI 304	

Size (inches)	S	A	B	C	D	E	Weight (Kg)
½"	144	89	55	76	61	16	1.2
¾"	159	97	62	76	62	16	1.4



INSTALLATION

The trap must be installed with the body upright so that hte float is rises and falls vertically. The inlet should be at the bottom with the trap installed above the drain point.

How to order: i.e. *LK 17 ½" BSP*

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DOUGLAS ITALIA S.P.A.

BALL FLOAT COMPRESSED AIR TRAPS

GT

DESCRIPTION

A range of float operated traps for draining water from compressed air lines.
Applications on aftercoolers , separators , compressed air mains.

MAIN FEATURES

Direct-acting float valve permits continuons drainage of water under changing conditions of inlet pressure and load. Because valve is under water during operation , air leakage is eliminated. Properly located it will assure a supply of dry compressed air.

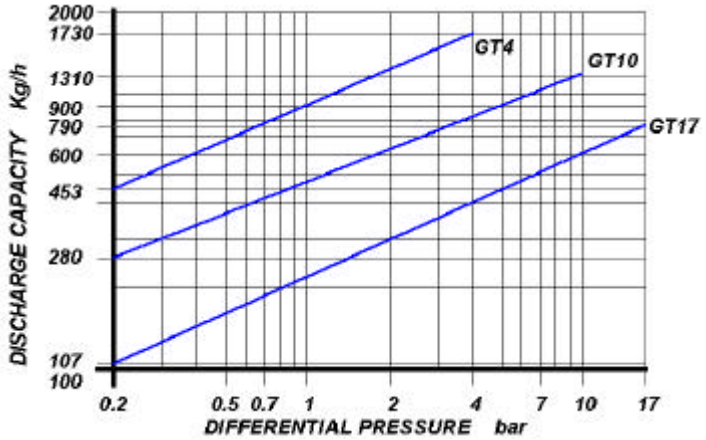
OPERATION

Water entering the trap lifts the float and opens the discharge valve. This adjusts the valve opening so that there is a continuons flow of water througt the trap. There are no pressure fluctuations as the trap opens and closes.

NOTE

An equalizing line should be installed. This will equalize the pressure to the trap , eliminate gas binding and permit a smooth uninterrupted flow of condensate to the trap, the equalizing line connection to the tank must be above the level of any possible accumulation of condensate.

DISCHARGE CAPACITY



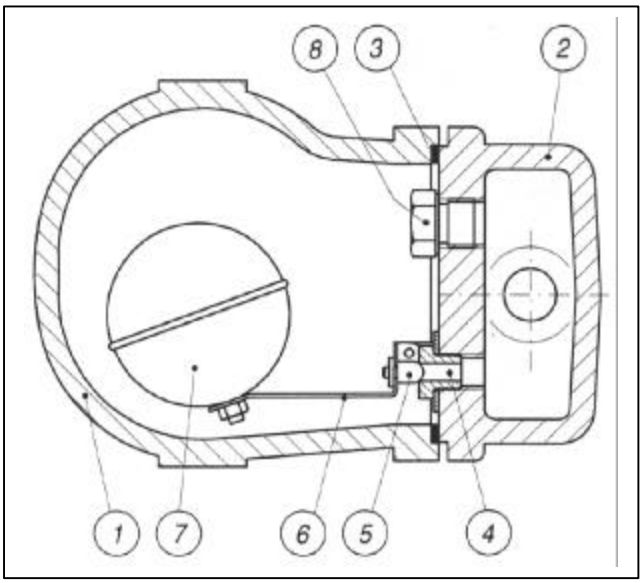
Safety factor = 1.2 – 1.5

SIZES
½" – ¾"

CONNECTIONS	
Screwed	BS 21 (BSP))
Flanged (ON REQUEST)	ANSI B 16.5 / UNI / DIN

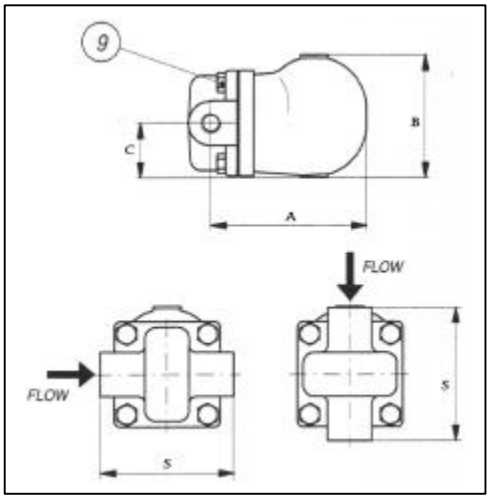
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	DIN PN 25
PMA: Max allowable pressure	25 bar
TMA: max allowable temperature	300°C
PMO: max working pressure	17 bar
TMO: max working temperature	250°C
Max. Differential pressure (GT 4)	4 bar
Max. Differential pressure (GT 10)	10 bar
Max. Differential pressure (GT 17)	17 bar

COMPRESSED AIR BALL FLOAT TRAPS
GT



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	GGG40 (DIN 1693)	
2	Cover	GGG40 (DIN 1693)	
3	Gasket	CAF	X
4	Seat	AISI 410	X
5	Valve	AISI 410	X
6	Lever	AISI 304	X
7	Ball float	AISI 304	X
8	Plug	STAINLESS STEAL	
9	Bolts	8.8 (UNI 3740-74)	

Size (inches)	S	A	B	C	Weight (Kg)
½"	120	141	110	49	4.8
¾"	120	141	110	49	4.8



INSTALLATION

The steam trap must be fitted with the float arm in a horizontal plane so that it rises and falls vertically with the flow direction indicated on the body.

HOW TO SERVICE

By installing a new mechanism assembly (4),(5),(6), if necessary also a ball float (7), you can bring the steam trap to the "as new from factory" condition. This operation is carried out without removing the trap from yhe pipeline. Always fit a new gasket (3) when reassembling.

How to order: i.e. *GT 10 ½" BSP*

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DOUGLAS ITALIA S.P.A.

BALL FLOAT COMPRESSED AIR TRAPS

GV

DESCRIPTION

A range of float operated traps for draining water from compressed air lines.
Applications on aftercoolers , separators , compressed air mains.

MAIN FEATURES

Direct-acting float valve permits continuons drainage of water under changing conditions of inlet pressure and load. Because valve is under water during operation , air leakage is eliminated. Properly located it will assure a supply of dry compressed air.

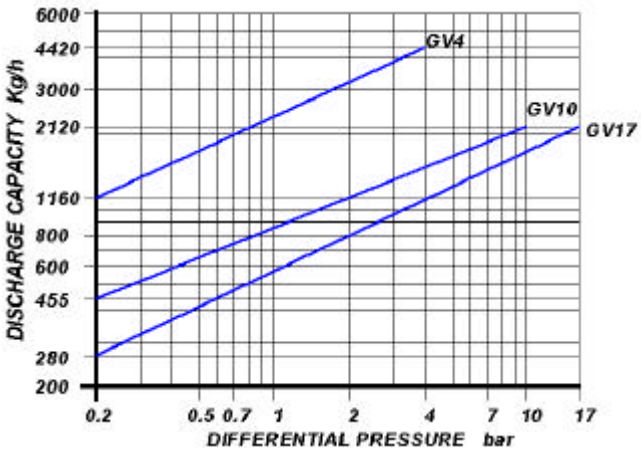
OPERATION

Water entering the trap lifts the float and opens the discharge valve. This adjusts the valve opening so that there is a continuons flow of water througt the trap. There are no pressure fluctuations as the trap opens and closes.

NOTE

An equalizing line should be installed. This will equalize the pressure to the trap , eliminate gas binding and permit a smooth uninterrupted flow of condensate to the trap, the equalizing line connection to the tank must be above the level of any possible accumulation of condensate.

DISCHARGE CAPACITY



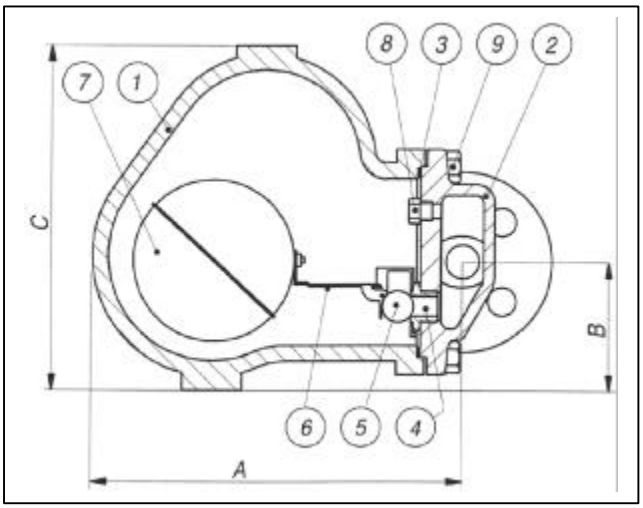
Safety factor = 1.2 – 1.5

SIZES
1”

CONNECTIONS	
Screwed	BS 21 (BSP))
Flanged	ANSI 150# / 300# / UNI / DIN

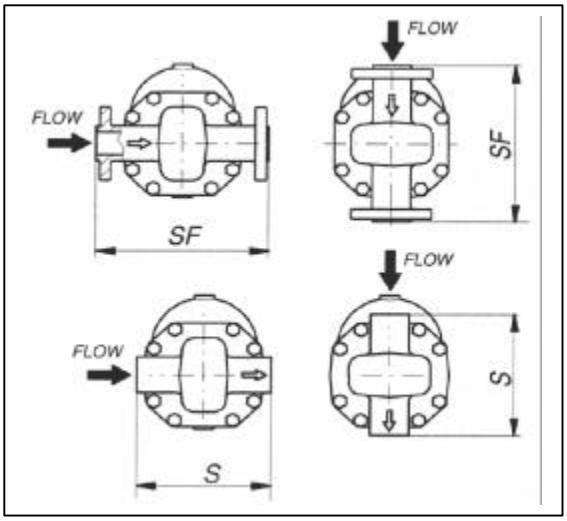
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	DIN PN 25
PMA: Max allowable pressure	25 bar
TMA: max allowable temperature	300°C
PMO: max working pressure	17 bar
TMO: max working temperature	250°C
Max. Differential pressure (GV 4)	4 bar
Max. Differential pressure (GV 10)	10 bar
Max. Differential pressure (GV 17)	17 bar

COMPRESSED AIR BALL FLOAT TRAPS
GV



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	GGG40 (DIN 1693)	
2	Cover	GGG40 (DIN 1693)	
3	Gasket	CAF	X
4	Seat	AISI 410	X
5	Valve	AISI 304	X
6	Lever	AISI 304	X
7	Ball float	AISI 304	X
8	Plug	STAINLESS STEAL	
9	Bolts	8.8 (UNI 3740-74)	

Flanged											
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#	
						SF	Kg	SF	Kg	SF	Kg
1"	165	238	81	218	13	215	16.5	210	16.5	214	16.7



INSTALLATION

The steam trap must be fitted with the float arm in a horizontal plane so that it rises and falls vertically with the flow direction indicated on the body.

HOW TO SERVICE

By installing a new mechanism assembly (4),(5),(6), if necessary also a ball float (7), you can bring the steam trap to the "as new from factory" condition. This operation is carried out without removing the trap from yhe pipeline. Always fit a new gasket (3) when reassembling.

How to order: i.e. *GV 17 ½" BSP*

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DOUGLAS ITALIA S.P.A.

BALL FLOAT COMPRESSED AIR TRAPS

GZ

DESCRIPTION

A range of float operated traps for draining water from compressed air lines.
Applications on aftercoolers , separators , compressed air mains.

MAIN FEATURES

Direct-acting float valve permits continuons drainage of water under changing conditions of inlet pressure and load. Because valve is under water during operation , air leakage is eliminated. Properly located it will assure a supply of dry compressed air.

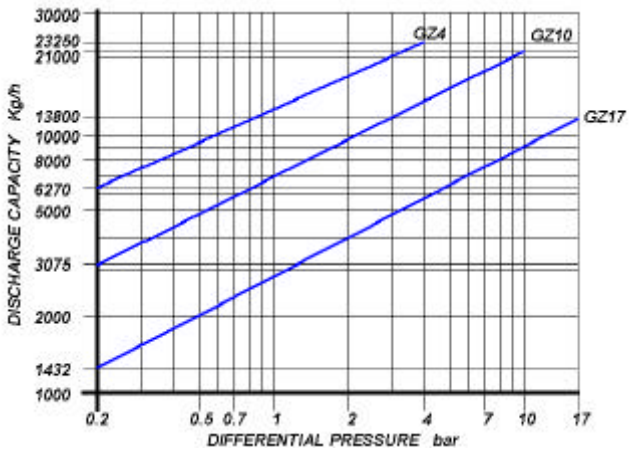
OPERATION

Water entering the trap lifts the float and opens the discharge valve. This adjusts the valve opening so that there is a continuons flow of water througt the trap. There are no pressure fluctuations as the trap opens and closes.

NOTE

An equalizing line should be installed. This will equalize the pressure to the trap , eliminate gas binding and permit a smooth uninterrupted flow of condensate to the trap, the equalizing line connection to the tank must be above the level of any possible accumulation of condensate.

DISCHARGE CAPACITY



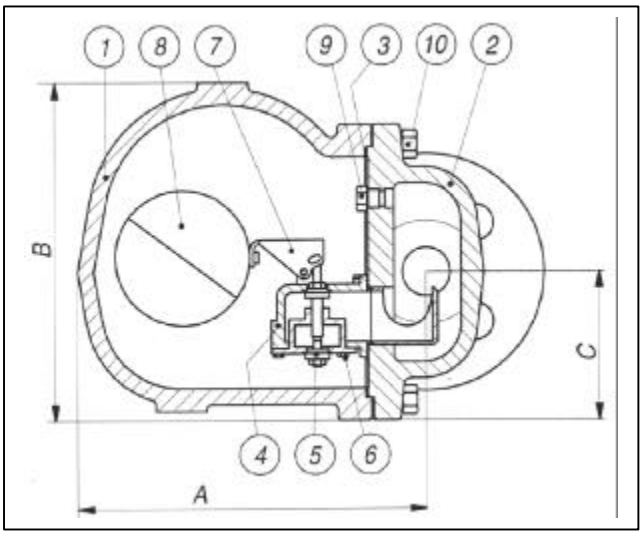
Safety factor = 1.2 – 1.5

SIZES
1½" – 2"

CONNECTIONS	
Screwed	*BS 21 (BSP))*
Flanged	*ANSI 150# / 300# / UNI / DIN*

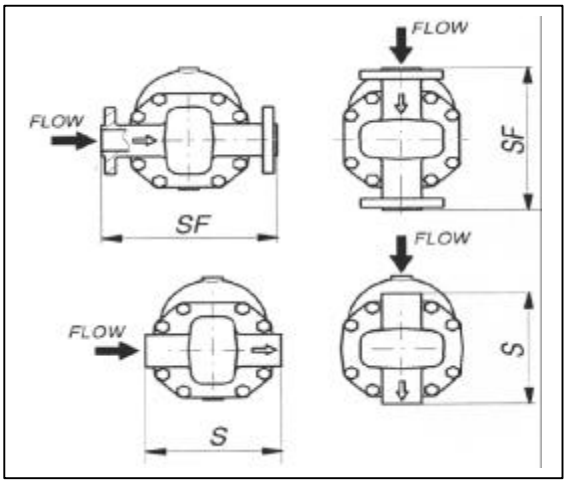
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	*DIN PN 25*
PMA: Max allowable pressure	*25 bar*
TMA: max allowable temperature	*300°C*
PMO: max working pressure	*17 bar*
TMO: max working temperature	*250°C*
Max. Differential pressure (GZ 4)	*4 bar*
Max. Differential pressure (GZ 10)	*10 bar*
Max. Differential pressure (GZ 17)	*17 bar*

COMPRESSED AIR BALL FLOAT TRAPS
GZ



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	GGG40 (DIN 1693)	
2	Cover	GGG40 (DIN 1693)	
3	Gasket	CAF	X
4	Seat	AISI 410	X
5	Valve	AISI 410	X
6	Screws	STAINLESS STEAL	X
7	Lever	AISI 304	X
8	Ball float	AISI 304	X
9	Plug	STAINLESS STEAL	
10	Bolts	8.8 (UNI 3740-74)	

Flanged											
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#	
						SF	Kg	SF	Kg	SF	Kg
1½"	260	258	250	109	34	320	37	320	37	320	39
2"	260	258	250	109	34	320	38	320	38	320	40



INSTALLATION

The steam trap must be fitted with the float arm in a horizontal plane so that it rises and falls vertically with the flow direction indicated on the body.

HOW TO SERVICE

By installing a new mechanism assembly (4),(5),(6),(7), if necessary also a ball float (8), you can bring the steam trap to the "as new from factory " condition. This operation is carried out without removing the trap from yhe pipeline. Always fit a new gasket (3) when reassembling.

How to order: i.e. *GZ 17 2" BSP*

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

BALL FLOAT COMPRESSED AIR TRAPS

GX WCB

DESCRIPTION

A range of float operated traps for draining water from compressed air lines.
Applications on aftercoolers , separators , compressed air mains.

MAIN FEATURES

Direct-acting float valve permits continuons drainage of water under changing conditions of inlet pressure and load. Because valve is under water during operation , air leakage is eliminated. Properly located it will assure a supply of dry compressed air.

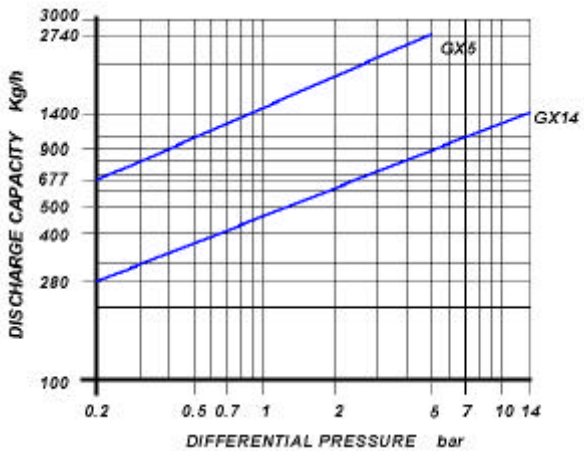
OPERATION

Water entering the trap lifts the float and opens the discharge valve. This adjusts the valve opening so that there is a continuons flow of water througt the trap. There are no pressure fluctuations as the trap opens and closes.

NOTE

An equalizing line should be installed. This will equalize the pressure to the trap , eliminate gas binding and permit a smooth uninterrupted flow of condensate to the trap, the equalizing line connection to the tank must be above the level of any possible accumulation of condensate.

DISCHARGE CAPACITY



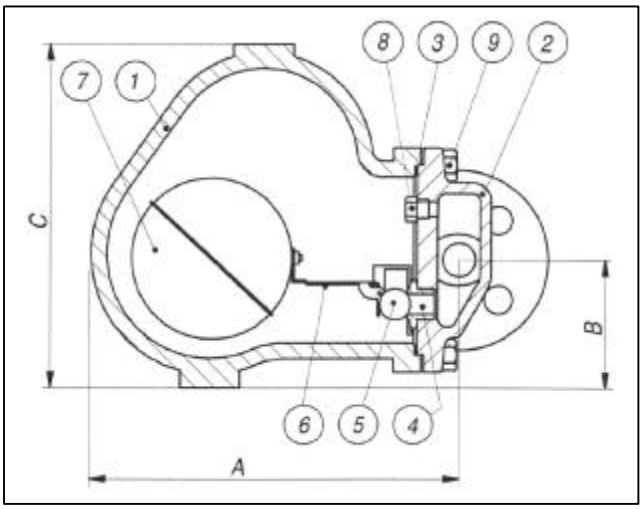
Safety factor = 1.2 – 1.5

SIZES
½" – ¾" – 1"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

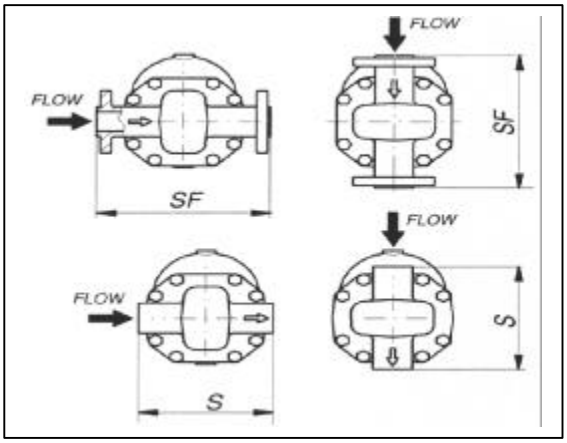
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 150
PMA: Max allowable pressure	20 bar
TMA: max allowable temperature	350°C
PMO: max working pressure	14 bar
TMO: max working temperature	300°C
Max. Differential pressure (GX 5)	5 bar
Max. Differential pressure (GX 14)	14 bar

COMPRESSED AIR BALL FLOAT TRAPS
GX WCB



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A216 WCB	
2	Cover	ASTM A216 WCB	
3	Gasket	316 / GRAPHITE	X
4	Seat	AISI 316	X
5	Valve	AISI 316	X
6	Lever	AISI 316	X
7	Ball float	AISI 316	X
8	Plug	INOX	
9	Bolts	ASTM A193 B7	

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	165	213	71	180	11	211	13.3	205	13.3	211	13.5	222	14
¾"	165	213	71	180	11	215	13.7	207	13.7	211	14.6	230	15
1"	165	213	71	180	11	215	14.5	210	14.5	214	15.2	230	15.5



INSTALLATION

The steam trap must be fitted with the float arm in a horizontal plane so that it rises and falls vertically with the flow direction indicated on the body.

HOW TO SERVICE

By installing a new mechanism assembly (4),(5),(6),if necessary also a ball float (7), you can bring the steam trap to the "as new from factory " condition. This operation is carried out without removing the trap from yhe pipeline. Always fit a new gasket (3) when reassembling.

How to order: i.e. *GX 14 WCB 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.

BALL FLOAT COMPRESSED AIR TRAPS

GX CF8M

DESCRIPTION

A range of float operated traps for draining water from compressed air lines.
Applications on aftercoolers , separators , compressed air mains.

MAIN FEATURES

Direct-acting float valve permits continuons drainage of water under changing conditions of inlet pressure and load. Because valve is under water during operation , air leakage is eliminated. Properly located it will assure a supply of dry compressed air.

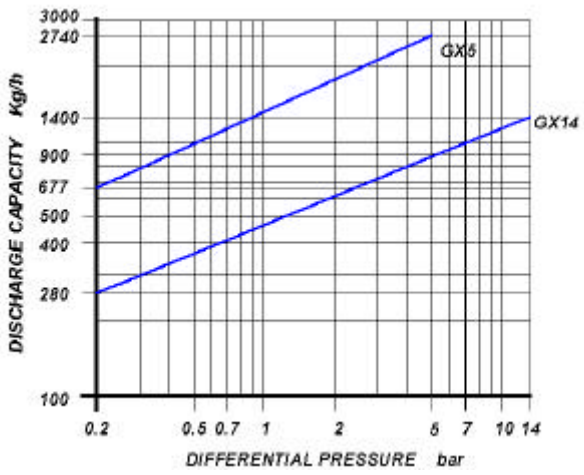
OPERATION

Water entering the trap lifts the float and opens the discharge valve. This adjusts the valve opening so that there is a continuons flow of water througt the trap. There are no pressure fluctuations as the trap opens and closes.

NOTE

An equalizing line should be installed. This will equalize the pressure to the trap , eliminate gas binding and permit a smooth uninterrupted flow of condensate to the trap, the equalizing line connection to the tank must be above the level of any possible accumulation of condensate.

DISCHARGE CAPACITY



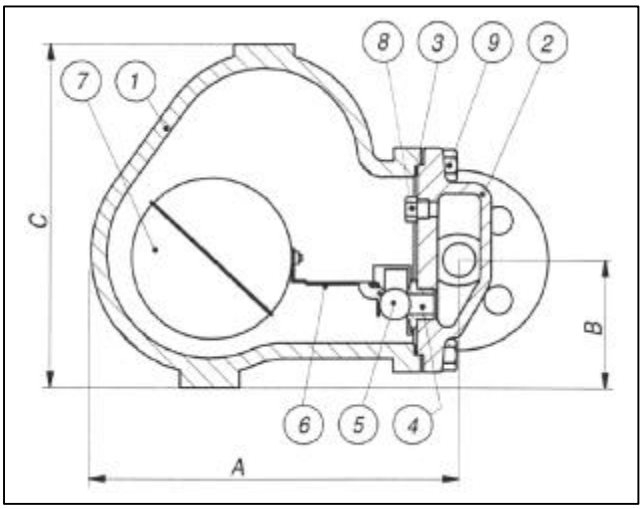
Safety factor = 1.2 – 1.5

SIZES
½" – ¾" – 1"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

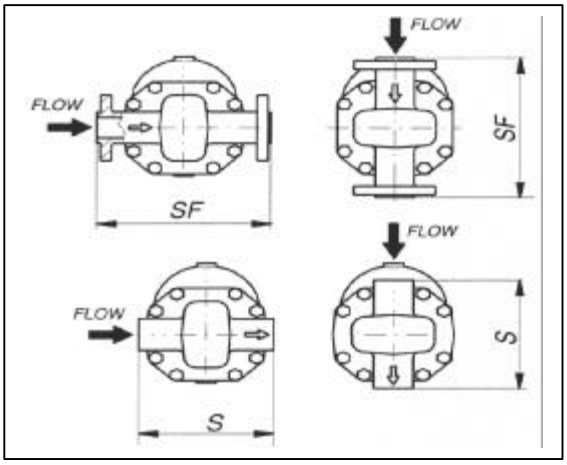
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 150
PMA: Max allowable pressure	20 bar
TMA: max allowable temperature	410°C
PMO: max working pressure	14 bar
TMO: max working temperature	370°C
Max. Differential pressure (GX 5)	5 bar
Max. Differential pressure (GX 14)	14 bar

COMPRESSED AIR BALL FLOAT TRAPS
GX CF8M



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A315 CF8M	
2	Cover	ASTM A315 CF8M	
3	Gasket	316 / GRAPHITE	X
4	Seat	AISI 316	X
5	Valve	AISI 316	X
6	Lever	AISI 316	X
7	Ball float	AISI 316	X
8	Plug	INOX	
9	Bolts	ASTM A193 B8	

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	165	213	71	180	11	211	13.3	205	13.3	211	13.5	222	14
¾"	165	213	71	180	11	215	13.7	207	13.7	211	14.6	230	15
1"	165	213	71	180	11	215	14.5	210	14.5	214	15.2	230	15.5



INSTALLATION

The steam trap must be fitted with the float arm in a horizontal plane so that it rises and falls vertically with the flow direction indicated on the body.

HOW TO SERVICE

By installing a new mechanism assembly (4),(5),(6),if necessary also a ball float (7), you can bring the steam trap to the "as new from factory " condition. This operation is carried out without removing the trap from yhe pipeline. Always fit a new gasket (3) when reassembling.

How to order: i.e. *GX 14 CF8M ½" NPT*

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OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

BALL FLOAT COMPRESSED AIR TRAPS

GY WCB

DESCRIPTION

A range of float operated traps for draining water from compressed air lines.
Applications on aftercoolers , separators , compressed air mains.

MAIN FEATURES

Direct-acting float valve permits continuons drainage of water under changing conditions of inlet pressure and load. Because valve is under water during operation , air leakage is eliminated. Properly located it will assure a supply of dry compressed air.

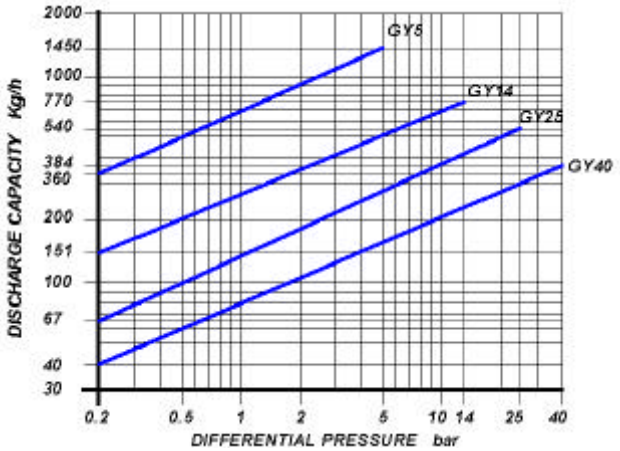
APPLICATIONS

Water entering the trap lifts the float and opens the discharge valve. This adjusts the valve opening so that there is a continuons flow of water througt the trap. There are no pressure fluctuations as the trap opens and closes.

NOTE

An equalizing line should be installed. This will equalize the pressure to the trap , eliminate gas binding and permit a smooth uninterrupted flow of condensate to the trap, the equalizing line connection to the tank must be above the level of any possible accumulation of condensate.

DISCHARGE CAPACITY



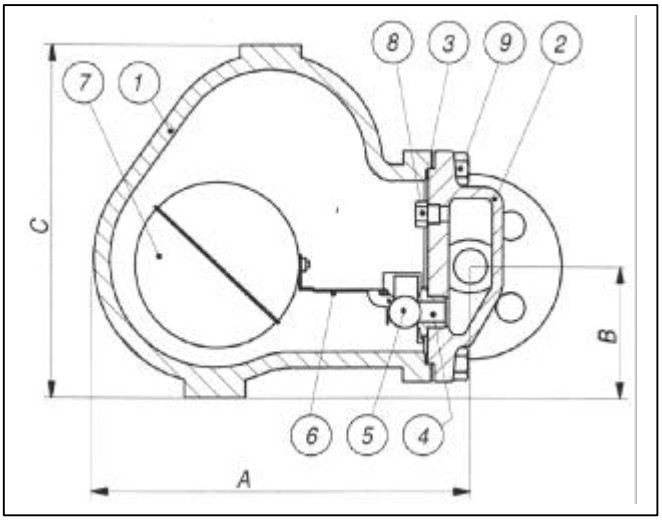
Safety factor = 1.2 – 1.5

SIZES
½" – ¾" – 1"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

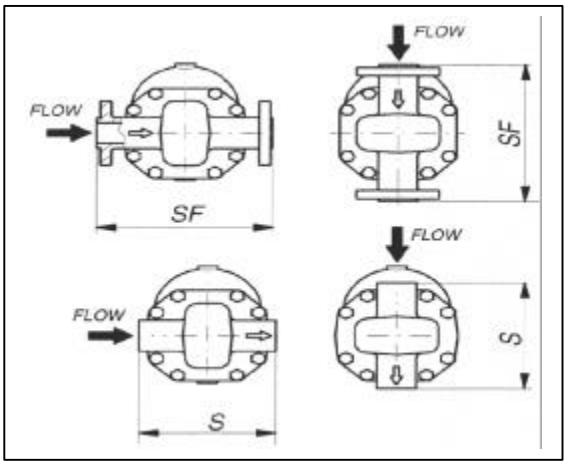
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 300
PMA: Max allowable pressure	50 bar
TMA: max allowable temperature	350°C
PMO: max working pressure	40 bar
TMO: max working temperature	300°C
Max. Differential pressure (GY 5)	5 bar
Max. Differential pressure (GY 14)	14 bar
Max. Differential pressure (GY 25)	25 bar
Max. Differential pressure (GY 40)	40 bar

COMPRESSED AIR BALL FLOAT TRAPS
GY WCB



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A216 WCB	
2	Cover	ASTM A216 WCB	
3	Gasket	316 / GRAPHITE	X
4	Seat	AISI 316	X
5	Valve	AISI 316	X
6	Lever	AISI 316	X
7	Ball float	AISI 316	X
8	Plug	STAINLESS STEEL	
9	Bolts	ASTM A193 B7	

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	165	213	71	180	11	211	13.3	205	13.3	211	13.5	222	14
¾"	165	213	71	180	11	215	13.7	207	13.7	211	14.6	230	15
1"	165	213	71	180	11	215	14.5	210	14.5	214	15.2	230	15.5



INSTALLATION

The steam trap must be fitted with the float arm in a horizontal plane so that it rises and falls vertically with the flow direction indicated on the body.

HOW TO SERVICE

By installing a new mechanism assembly (4),(5),(6),if necessary also a ball float (7), you can bring the steam trap to the "as new from factory" condition. This operation is carried out without removing the trap from yhe pipeline. Always fit a new gasket (3) when reassembling.

How to order: i.e. *GY 40 WCB 1" 300 RF*

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

BALL FLOAT COMPRESSED AIR TRAPS

GY CF8M

DESCRIPTION

A range of float operated traps for draining water from compressed air lines.
Applications on aftercoolers , separators , compressed air mains.

MAIN FEATURES

Direct-acting float valve permits continuons drainage of water under changing conditions of inlet pressure and load. Because valve is under water during operation , air leakage is eliminated. Properly located it will assure a supply of dry compressed air.

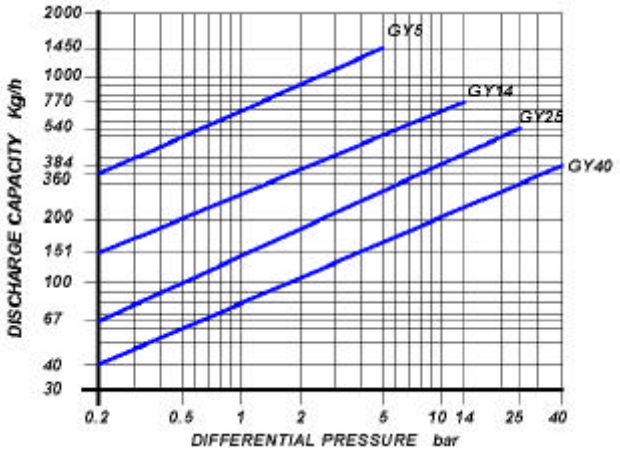
APPLICATIONS

Water entering the trap lifts the float and opens the discharge valve. This adjusts the valve opening so that there is a continuons flow of water througt the trap. There are no pressure fluctuations as the trap opens and closes.

NOTE

An equalizing line should be installed. This will equalize the pressure to the trap , eliminate gas binding and permit a smooth uninterrupted flow of condensate to the trap, the equalizing line connection to the tank must be above the level of any possible accumulation of condensate.

DISCHARGE CAPACITY



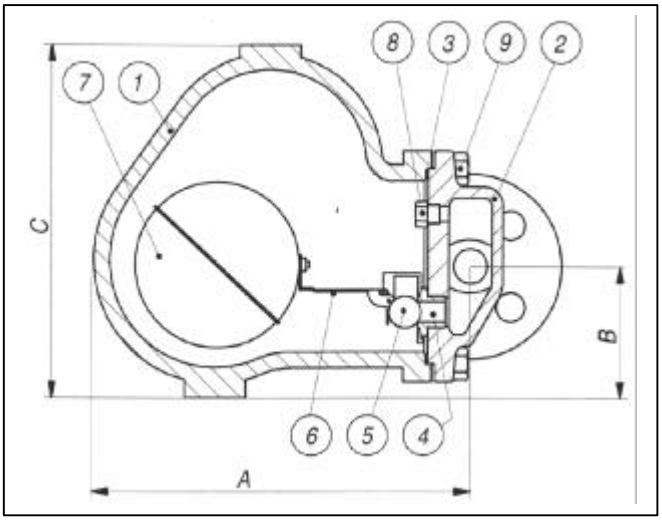
Safety factor = 1.2 – 1.5

SIZES
½" – ¾" – 1"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

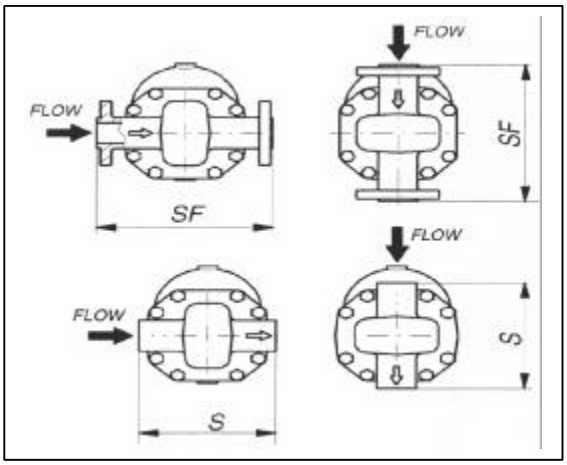
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 300
PMA: Max allowable pressure	50 bar
TMA: max allowable temperature	410°C
PMO: max working pressure	40 bar
TMO: max working temperature	370°C
Max. Differential pressure (GY 5)	5 bar
Max. Differential pressure (GY 14)	14 bar
Max. Differential pressure (GY 25)	25 bar
Max. Differential pressure (GY 40)	40 bar

COMPRESSED AIR BALL FLOAT TRAPS
GY CF8M



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A351 CF8M	
2	Cover	ASTM A351 CF8M	
3	Gasket	316 / GRAPHITE	X
4	Seat	AISI 316	X
5	Valve	AISI 316	X
6	Lever	AISI 316	X
7	Ball float	AISI 316	X
8	Plug	STAINLESS STEEL	
9	Bolts	ASTM A193 B8	

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	165	213	71	180	11	211	13.3	205	13.3	211	13.5	222	14
¾"	165	213	71	180	11	215	13.7	207	13.7	211	14.6	230	15
1"	165	213	71	180	11	215	14.5	210	14.5	214	15.2	230	15.5



INSTALLATION

The steam trap must be fitted with the float arm in a horizontal plane so that it rises and falls vertically with the flow direction indicated on the body.

HOW TO SERVICE

By installing a new mechanism assembly (4),(5),(6),if necessary also a ball float (7), you can bring the steam trap to the "as new from factory" condition. This operation is carried out without removing the trap from yhe pipeline. Always fit a new gasket (3) when reassembling.

How to order: i.e. *GY 40 CF8M 1" 300 RF*

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OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

BALL FLOAT COMPRESSED AIR TRAPS

GK WCB

DESCRIPTION

A range of float operated traps for draining water from compressed air lines.
Applications on aftercoolers , separators , compressed air mains.

MAIN FEATURES

Direct-acting float valve permits continuons drainage of water under changing conditions of inlet pressure and load. Because valve is under water during operation , air leakage is eliminated. Properly located it will assure a supply of dry compressed air.

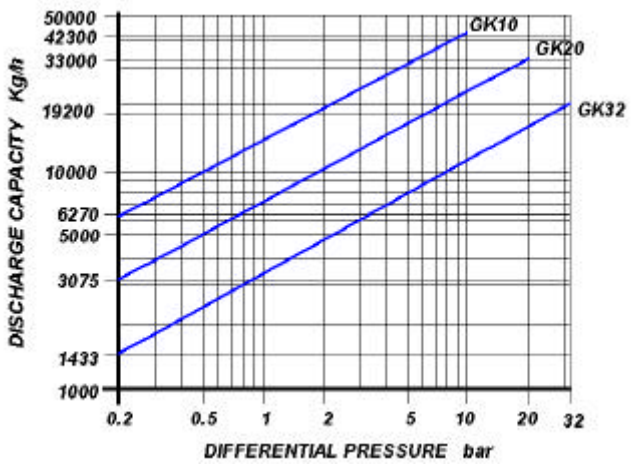
OPERATION

Water entering the trap lifts the float and opens the discharge valve. This adjusts the valve opening so that there is a continuons flow of water througt the trap. There are no pressure fluctuations as the trap opens and closes.

NOTE

An equalizing line should be installed. This will equalize the pressure to the trap , eliminate gas binding and permit a smooth uninterrupted flow of condensate to the trap, the equalizing line connection to the tank must be above the level of any possible accumulation of condensate.

DISCHARGE CAPACITY



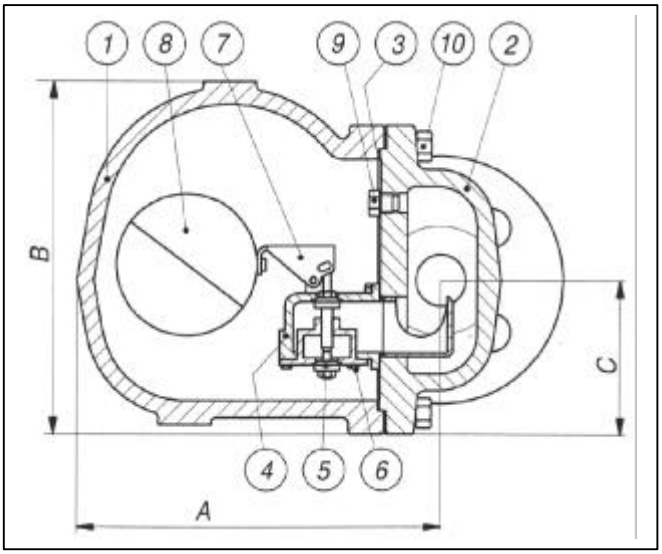
Safety factor = 1.2 – 1.5

SIZES
1½" – 2"

CONNECTIONS	
SCREWED	*ANSI B1.20.1 (NPT) / BS21 (BSP)*
SOCKET WELD	*ANSI B16.11*
FLANGED	*ANSI 150#/300#/600#/UNI/DIN*

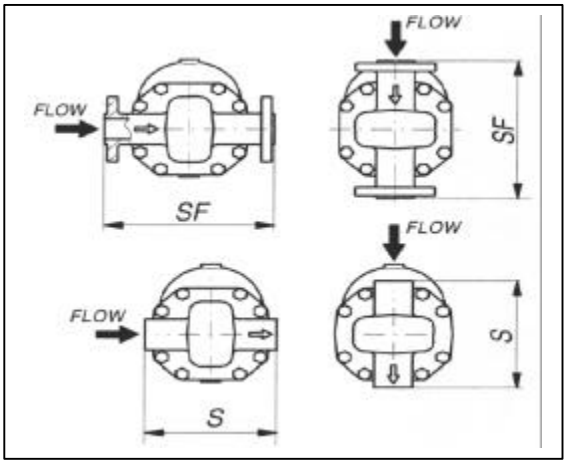
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	*ANSI 300*
PMA: Max allowable pressure	*50 bar*
TMA: max allowable temperature	*350°C*
PMO: max working pressure	*40 bar*
TMO: max working temperature	*300°C*
Max. Differential pressure (GK 10)	*10 bar*
Max. Differential pressure (GK 20)	*20 bar*
Max. Differential pressure (GK 32)	*32 bar*

COMPRESSED AIR BALL FLOAT TRAPS
GK WCB



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A216 WCB	
2	Cover	ASTM A216 WCB	
3	Gasket	316 / GRAPHITE	X
4	Seat	AISI 316	X
5	Valve	AISI 316	X
6	Screws	STAINLESS STEEL	X
7	Lever	AISI 316	X
8	Ball float	AISI 316	X
9	Plug	A 105	
10	Bolts	ASTM A193 B7	

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
1½"	260	258	250	109	34	320	37	320	37	320	39	320	41
"2"	260	258	250	109	34	320	38	320	38	320	40	320	42



INSTALLATION

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HOW TO SERVICE

By installing a new mechanism assembly (4),(5),(6),(7), if necessary also a ball float (8), you can bring the steam trap to the " as new from factory " condition. This operation is carried out without removing the trap from yhe pipeline. Always fit a new gasket (3) when reassembling.

How to order: i.e. *GK 17 WCB 2" 300 RF*

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DOUGLAS ITALIA S.P.A.

BALL FLOAT COMPRESSED AIR TRAPS

GK CF8M

DESCRIPTION

A range of float operated traps for draining water from compressed air lines.
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MAIN FEATURES

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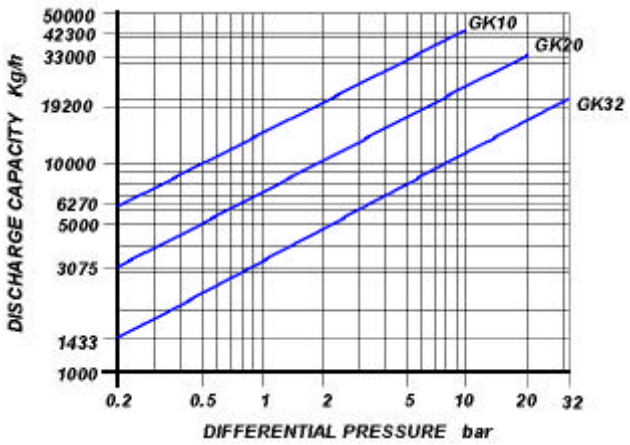
OPERATION

Water entering the trap lifts the float and opens the discharge valve. This adjusts the valve opening so that there is a continuons flow of water througt the trap. There are no pressure fluctuations as the trap opens and closes.

NOTE

An equalizing line should be installed. This will equalize the pressure to the trap , eliminate gas binding and permit a smooth uninterrupted flow of condensate to the trap, the equalizing line connection to the tank must be above the level of any possible accumulation of condensate.

DISCHARGE CAPACITY



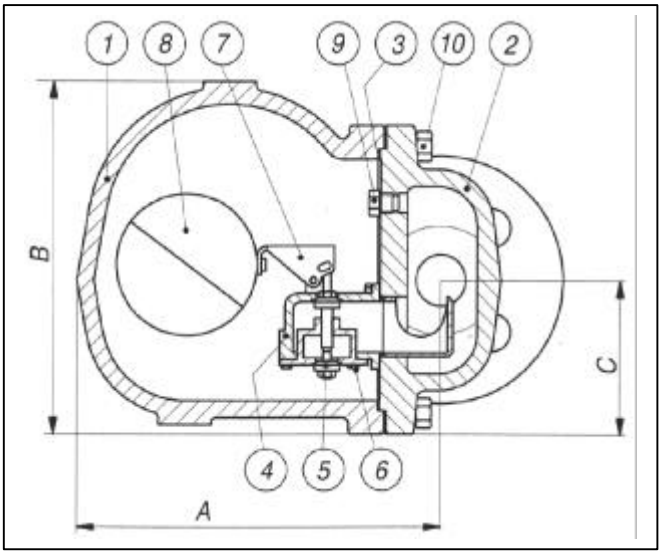
Safety factor = 1.2 – 1.5

SIZES
1½" – 2"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

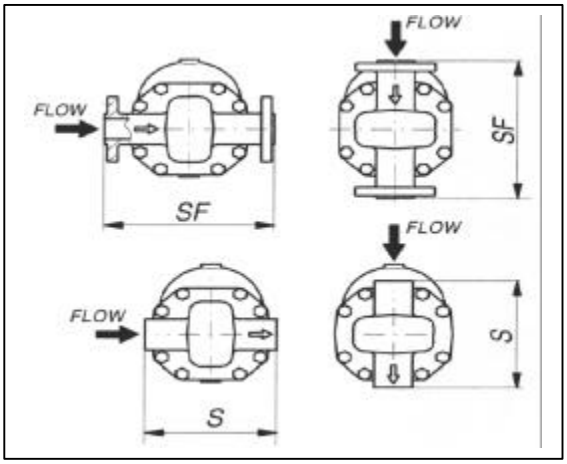
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 300
PMA: Max allowable pressure	50 bar
TMA: max allowable temperature	410°C
PMO: max working pressure	40 bar
TMO: max working temperature	370°C
Max. Differential pressure (GK 10)	10 bar
Max. Differential pressure (GK 20)	20 bar
Max. Differential pressure (GK 32)	32 bar

COMPRESSED AIR BALL FLOAT TRAPS
GK CF8M



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A351 CF8M	
2	Cover	ASTM A351 CF8M	
3	Gasket	316 / GRAPHITE	X
4	Seat	AISI 316	X
5	Valve	AISI 316	X
6	Screws	STAINLESS STEEL	X
7	Lever	AISI 316	X
8	Ball float	AISI 316	X
9	Plug	F 304	
10	Bolts	ASTM A193 B8	

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
1½"	260	258	250	109	34	320	37	320	37	320	39	320	41
"2"	260	258	250	109	34	320	38	320	38	320	40	320	42



INSTALLATION

The steam trap must be fitted with the float arm in a horizontal plane so that it rises and falls vertically with the flow direction indicated on the body.

HOW TO SERVICE

By installing a new mechanism assembly (4),(5),(6),(7), if necessary also a ball float (8), you can bring the steam trap to the " as new from factory " condition. This operation is carried out without removing the trap from yhe pipeline. Always fit a new gasket (3) when reassembling.

How to order: i.e. *GK 17 CF8M 2" 300 RF*

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DOUGLAS ITALIA

AIR AND GAS VENTS FOR LIQUID SYSTEM

GO BACK

DOUGLAS ITALIA

AIR AND GAS VENTS FOR LIQUID SYSTEM

- AP
- AK
- GA 150A WCB
- GA 150A CF8M

GO BACK

DOUGLAS ITALIA S.P.A.

AIR AND GAS VENTS
AP

AIR AND GAS VENTS

Douglas float type air and gas vents are designed for automatic venting of any gas from any liquid under pressure.

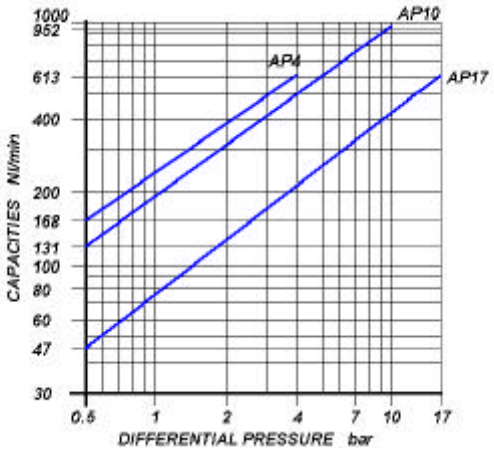
MAIN FEATURES

- *Corrosion-resistance working parts*
- *Capacities to meet most requirements*
- *Replaceable internal parts*

OPERATION

The float controls the discharge valve wich is normally open allowing all air to escape through its large orifice. As liquid enters the chamber the float gradually rises , closing the valve

DISCHARGE CAPACITY



CAPACITIES AT A STANDARD ATMOSPHERIC PRESSURE OF 1 bar AND 20°C
Q[°C] = Q[20°C] x (288 / (273 +t)) Q = Capacity t = Temperature

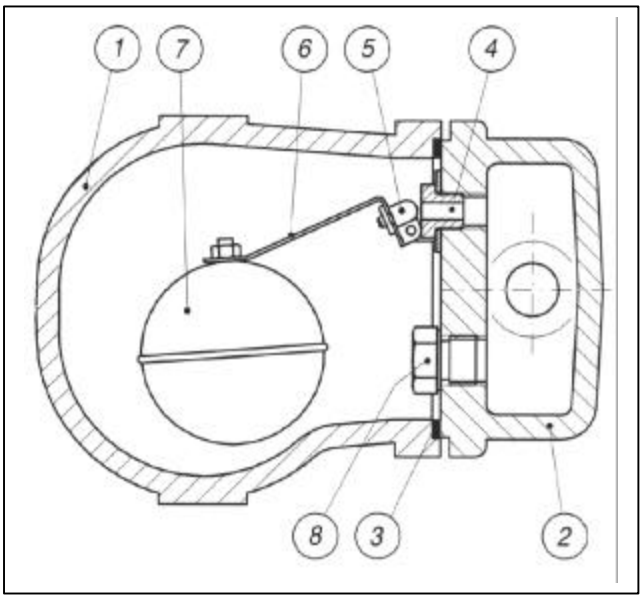
SIZES
½" – ¾"

CONNECTIONS	
Screwed	BS 21 (BSP))
Flanged	ANSI B 16.5 / UNI / DIN

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	DIN PN 25
PMA: Max allowable pressure	25 bar
TMA: max allowable temperature	300°C
PMO: max working pressure	17 bar
TMO: max working temperature	250°C
Minimum lquid specific weight	0.45 Kg/dm3
Max. Differential pressure (AP 4)	4 bar
Max. Differential pressure (AP 10)	10 bar
Max. Differential pressure (AP 17)	17 bar

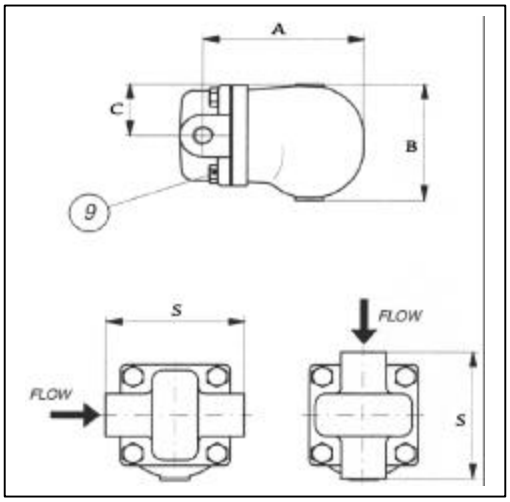
AIR AND GAS VENTS

AP



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	GGG40 (DIN 1693)	
2	Cover	GGG40 (DIN 1693)	
3	Gasket	CAF	X
4	Seat	AISI 410	X
5	Valve	AISI 410	X
6	Lever	AISI 304	X
7	Ball float	AISI 304	X
8	Plug	STAINLESS STEAL	
9	Bolts	8.8 (UNI 3740-74)	

Size (inches)	S	A	B	C	Weight (Kg)
½"	120	141	110	49	4.8
¾"	120	141	110	49	4.8



INSTALLATION

The air vent must be fitted above the point being vented and must always be fitted with the float arm in horizontal plane so that it rises and falls vertically with the flow direction indicated on the body.

HOW TO SERVICE

By installing a new mechanism assembly (4),(5),(6), if necessary also a ball float (7), you can bring the steam trap to the "as new from factory" condition. This operation is carried out without removing the trap from yhe pipeline. Always fit a new gasket (3) when reassembling.

How to order: i.e. *AP 10 ½" BSP*

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DOUGLAS ITALIA S.P.A.

AIR AND GAS VENTS
AK

AIR AND GAS VENTS

Douglas float type air and gas vents are designed for automatic venting of any gas from any liquid under pressure.

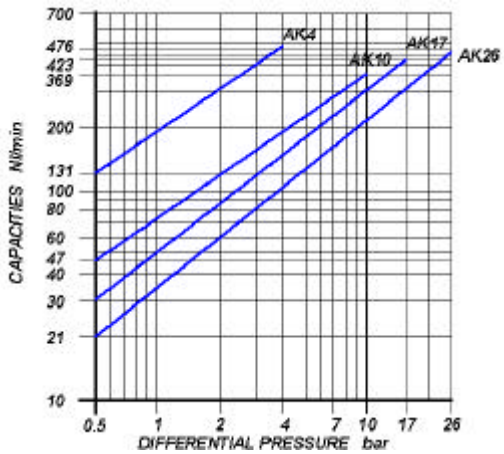
MAIN FEATURES

- ❑ *Complete stainless steel construction*
- ❑ *High corrosion resistence*
- ❑ *Sealed construction*

OPERATION

The float controls the discharge valve wich is normally open allowing all air to escape through its large orifice. As liquid enters the chamber the float gradually rises , closing the valve.

DISCHARGE CAPACITY



CAPACITIES AT A STANDARD ATMOSPHERIC PRESSURE OF 1 bar AND 20°C
Q[°C] = Q[20°C] x (288 / (273 +t)) Q = Capacity t = Temperature

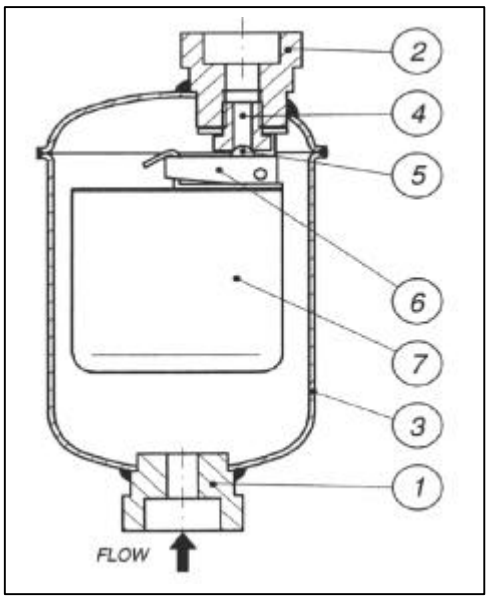
SIZES
½" – ¾"

CONNECTIONS	
Screwed	BS 21 (BSP) /ANSI B1.20.1 (NPT)
Socket weld	ANSI B 16.11
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	500°C
PMO: max working pressure	26 bar
TMO: max working temperature	380°C
Minimum liquid specific weigth	0.6 Kg/dm3
Max. Differential pressure (AK 4)	4 bar
Max. Differential pressure (AK 10)	10 bar
Max. Differential pressure (AK 17)	17 bar
Max. Differential pressure (AK 26)	26 bar

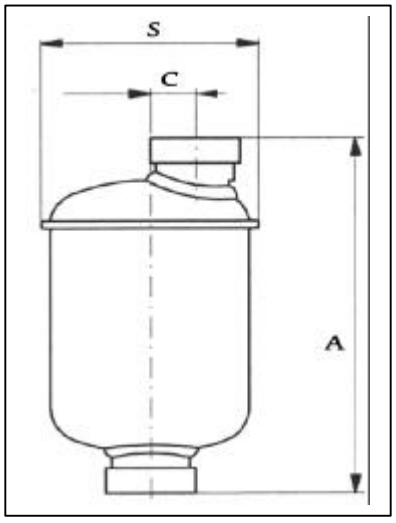
AIR AND GAS VENTS

AK



POS.	DESCRIPTION	MATERIALS	SPARES
1	Inlet coupling	AISI 304	
2	Outlet coupling	AISI 304	
3	Body	AISI 304	
4	Seat	AISI 410	
5	Valve	AISI 410	
6	Lever	AISI 304	
7	Float	AISI 304	

Size (inches)	S	A	C	Weight (Kg)
½"	76	144	16	0.9
¾"	76	144	16	0.9



INSTALLATION

The trap must be installed with the body upright so that hte float is rises and falls vertically. The inlet should be at the bottom with the trap installed above the drain point.

How to order: i.e. AK 10 ½" NPT

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DOUGLAS ITALIA S.P.A.

AIR AND GAS VENTS
GA 150A WCB

AIR AND GAS VENTS

Douglas float type air and gas vents are designed for automatic venting of any gas from any liquid under pressure.

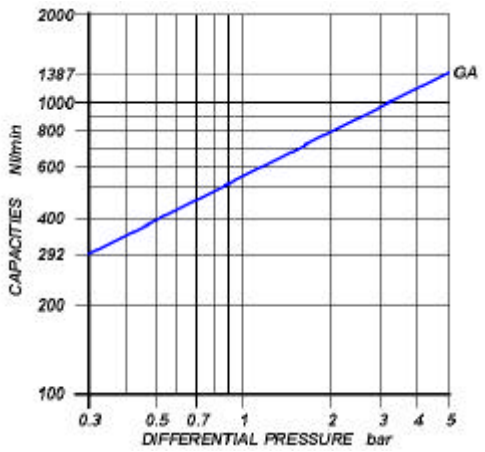
MAIN FEATURES

- ❑ *Corrosion-resistance working parts*
- ❑ *Capacities to meet most requirements*
- ❑ *Replaceable internal parts*

OPERATION

The float controls the discharge valve wich is normally open allowing all air to escape through its large orifice. As liquid enters the chamber the float gradually rises , closing the valve

DISCHARGE CAPACITY



CAPACITIES AT A STANDARD ATMOSPHERIC PRESSURE OF 1 bar AND 20°C
Q[°C] = Q[20°C] x (288 / (273 +t)) Q = Capacity t = Temperature

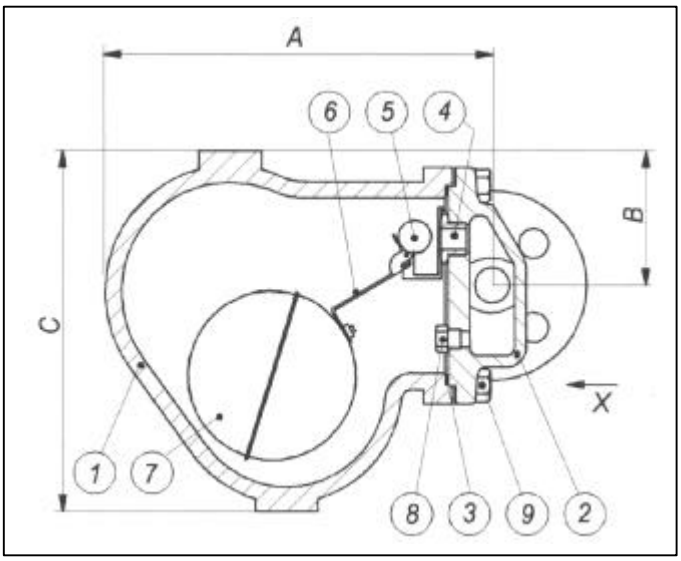
SIZES
½" – ¾" – 1"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 150
PMA: Max allowable pressure	20 bar
TMA: max allowable temperature	350°C
PMO: max working pressure	14 bar
TMO: max working temperature	300°C
Minimum liquid specific weigth	0.5 Kg/dm3
Max. Differential pressure	5 bar

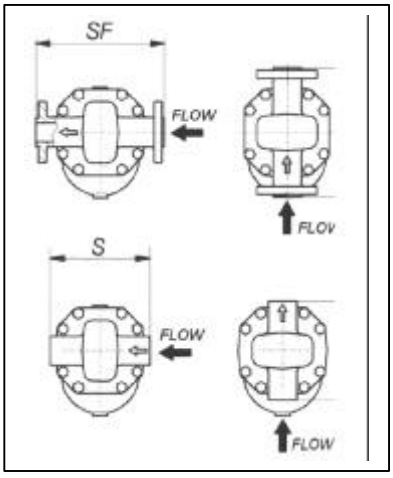
AIR AND GAS VENTS

GA 150A WCB



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A216 WCB	
2	Cover	ASTM A216 WCB	
3	Gasket	316 / GRAPHITE	X
4	Seat	AISI 316	X
5	Valve	AISI 316	X
6	Lever	AISI 316	X
7	Ball float	AISI 316	X
8	Plug	STAINLESS STEEL	
9	Bolts	ASTM A193 B7	

Flanged													
Size (inches)	S	A	B	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	165	213	71	180	11	211	13.3	205	13.3	211	13.5	222	14
¾"	165	213	71	180	11	215	13.7	207	13.7	211	14.6	230	15
1"	165	213	71	180	11	215	14.5	210	14.5	214	15.2	230	15.5



INSTALLATION

The air vent must be fitted above the point being vented and must always be fitted with the float arm in horizontal plane so that it rises and falls vertically with the flow direction indicated on the body.

HOW TO SERVICE

By installing a new mechanism assembly (4),(5),(6),if necessary also a ball float (7), you can bring the steam trap to the "as new from factory" condition. This operation is carried out without removing the trap from yhe pipeline. Always fit a new gasket (3) when reassembling.

How to order: i.e. *GA 150A WCB ½" BSP*

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DOUGLAS ITALIA S.P.A.

AIR AND GAS VENTS
GA 150A CF8M

AIR AND GAS VENTS

Douglas float type air and gas vents are designed for automatic venting of any gas from any liquid under pressure.

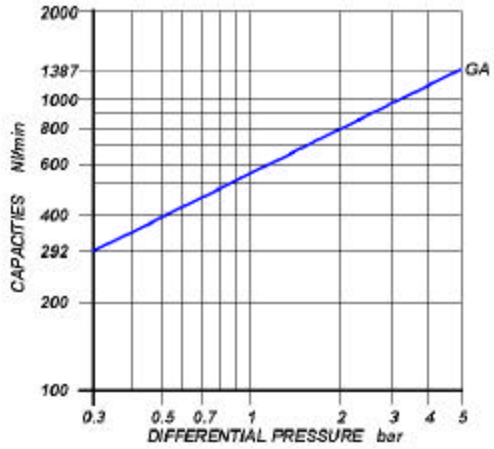
MAIN FEATURES

- ❑ *Corrosion-resistance working parts*
- ❑ *Capacities to meet most requirements*
- ❑ *Replaceable internal parts*

OPERATION

The float controls the discharge valve wich is normally open allowing all air to escape through its large orifice. As liquid enters the chamber the float gradually rises , closing the valve

DISCHARGE CAPACITY



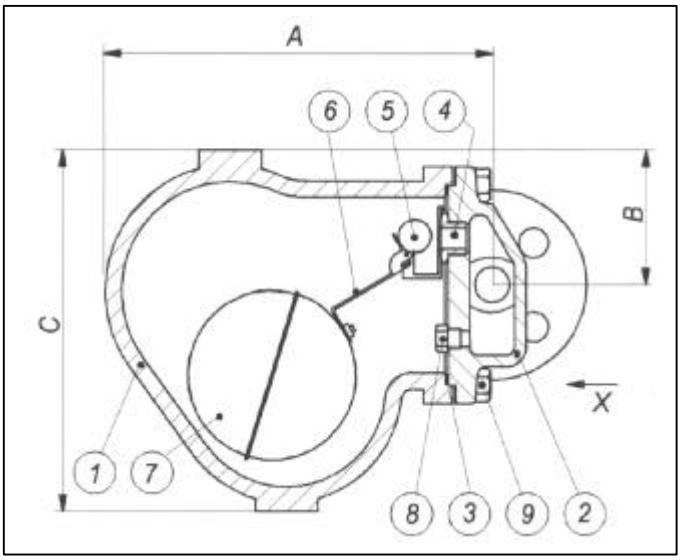
CAPACITIES AT A STANDARD ATMOSPHERIC PRESSURE OF 1 bar AND 20°C
Q[°C] = Q[20°C] x (288 / (273 +t)) Q = Capacity t = Temperature

SIZES
½" – ¾" – 1"

CONNECTIONS	
SCREWED	ANSI B1.20.1 (NPT) / BS21 (BSP)
SOCKET WELD	ANSI B16.11
FLANGED	ANSI 150#/300#/600#/UNI/DIN

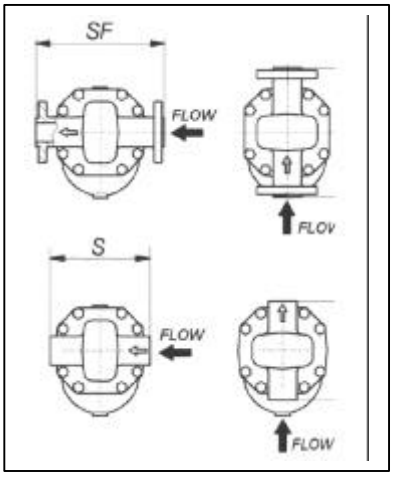
LIMITING CONDITIONS (according to ISO 6552)	
Steam Trap rating	ANSI 150
PMA: Max allowable pressure	20 bar
TMA: max allowable temperature	410°C
PMO: max working pressure	14 bar
TMO: max working temperature	370°C
Minimum liquid specific weigth	0.5 Kg/dm3
Max. Differential pressure	5 bar

AIR AND GAS VENTS
GA 150A CF8M



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A351 CF8M	
2	Cover	ASTM A351 CF8M	
3	Gasket	316 / GRAPHITE	X
4	Seat	AISI 316	X
5	Valve	AISI 316	X
6	Lever	AISI 316	X
7	Ball float	AISI 316	X
8	Plug	STAINLESS STEEL	
9	Bolts	ASTM A193 B8	

Size (inches)	S	A	B	C	Weight (Kg)	Flanged							
						UNI-DIN PN16-25-40		150#		300#		600#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	165	213	71	180	11	211	13.3	205	13.3	211	13.5	222	14
¾"	165	213	71	180	11	215	13.7	207	13.7	211	14.6	230	15
1"	165	213	71	180	11	215	14.5	210	14.5	214	15.2	230	15.5



INSTALLATION

The air vent must be fitted above the point being vented and must always be fitted with the float arm in horizontal plane so that it rises and falls vertically with the flow direction indicated on the body.

HOW TO SERVICE

By installing a new mechanism assembly (4),(5),(6),if necessary also a ball float (7), you can bring the steam trap to the "as new from factory" condition. This operation is carried out without removing the trap from yhe pipeline. Always fit a new gasket (3) when reassembling.

How to order: i.e. *GA 150A CF8M ½" BSP*

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DOUGLAS ITALIA

MANIFOLDS

INTRODUCTION

FORGED PISTON

COMPACT DRAIN

JACKET

GO BACK

DOUGLAS ITALIA S.P.A.

FORGED MANIFOLD

-1- FOREWORD

Steam is widely used in both chemical and petrochimical plants. One of its most frequent utilizations is the tracing of distibuction lines to avoid freezing, and to reduce the viscosity of the fluids contained inside these lines.

Thus, in these plants, these is a large number of manifolds, located at the beginning or at the end of the lines, and used both for the steam distribution to the line tracing, and for the collection of the condensate resulting from the line tracing service.

Traditionally, these manifolds are made by pipes, whose ends are closed by welding caps, and by a large number of connections, whether they are used for steam distribution or for collection of condensate.

The fabrication of these manifolds implies:

- A large number of welding,often to be provided in dangerous areas.
- Very large dimension.
- Need of supports,specifically suited for purpose.
- Need of continuous engineering due to locations into the plants, and to utilization for steam distribution or collection of condensate.

Giving consideration to all the above, **DOUGLAS ITALIA** has included into its product line a **FORGED MANIFOLD** that:

- Minimized the required number of welds.
- Has extremely reduced dimensions.
- Does not need special support but, through threaded holes in its rear face, can be fixed onto any existing strusture.
- Does not need much engineering since it is suitable both for steam distributing (FIG. 1) and for condensate collection service (FIG. 2). For this last utilization, the manifold is supplied, if request, with an inner stainless steel tube.

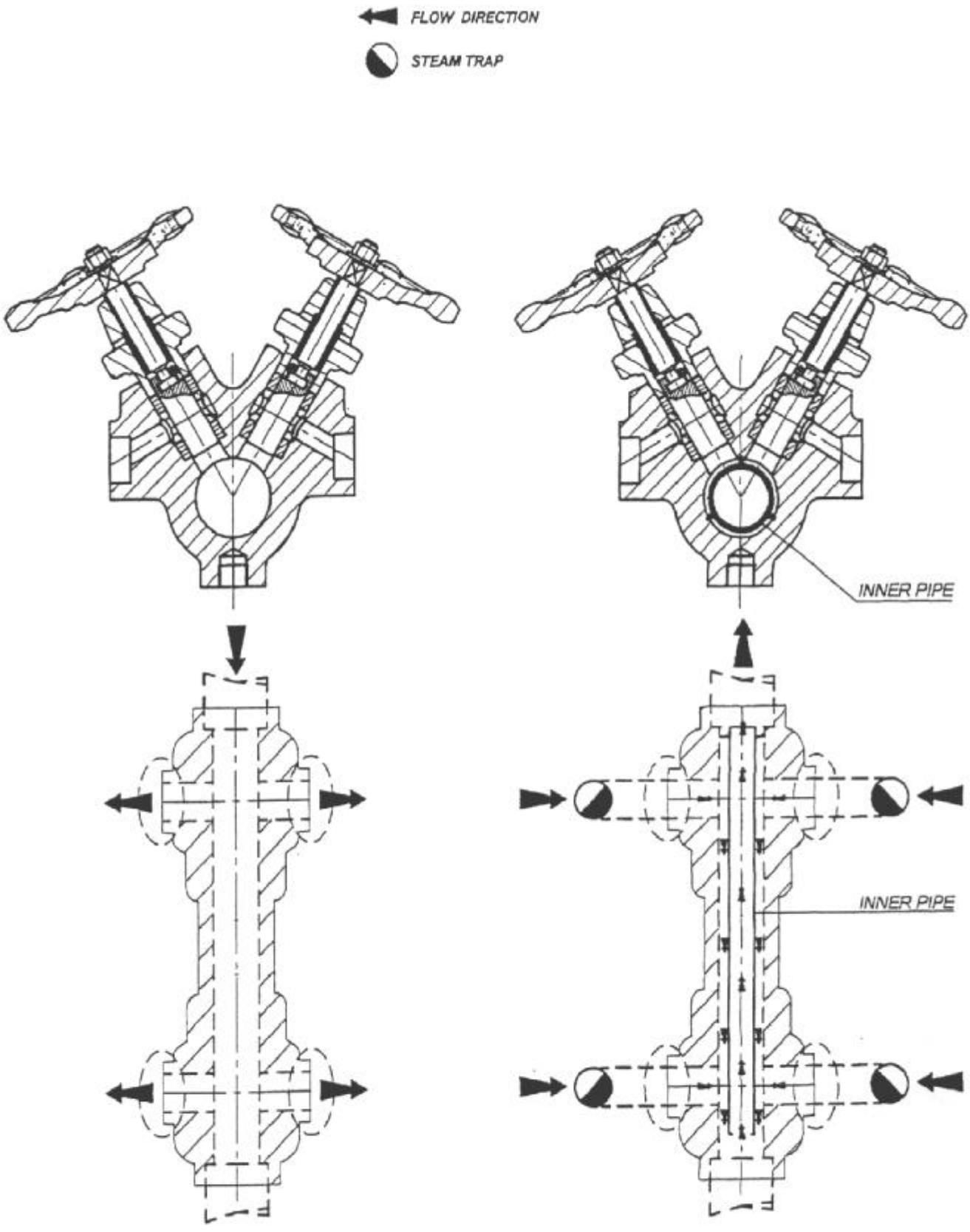


Fig. 1

Fig. 2

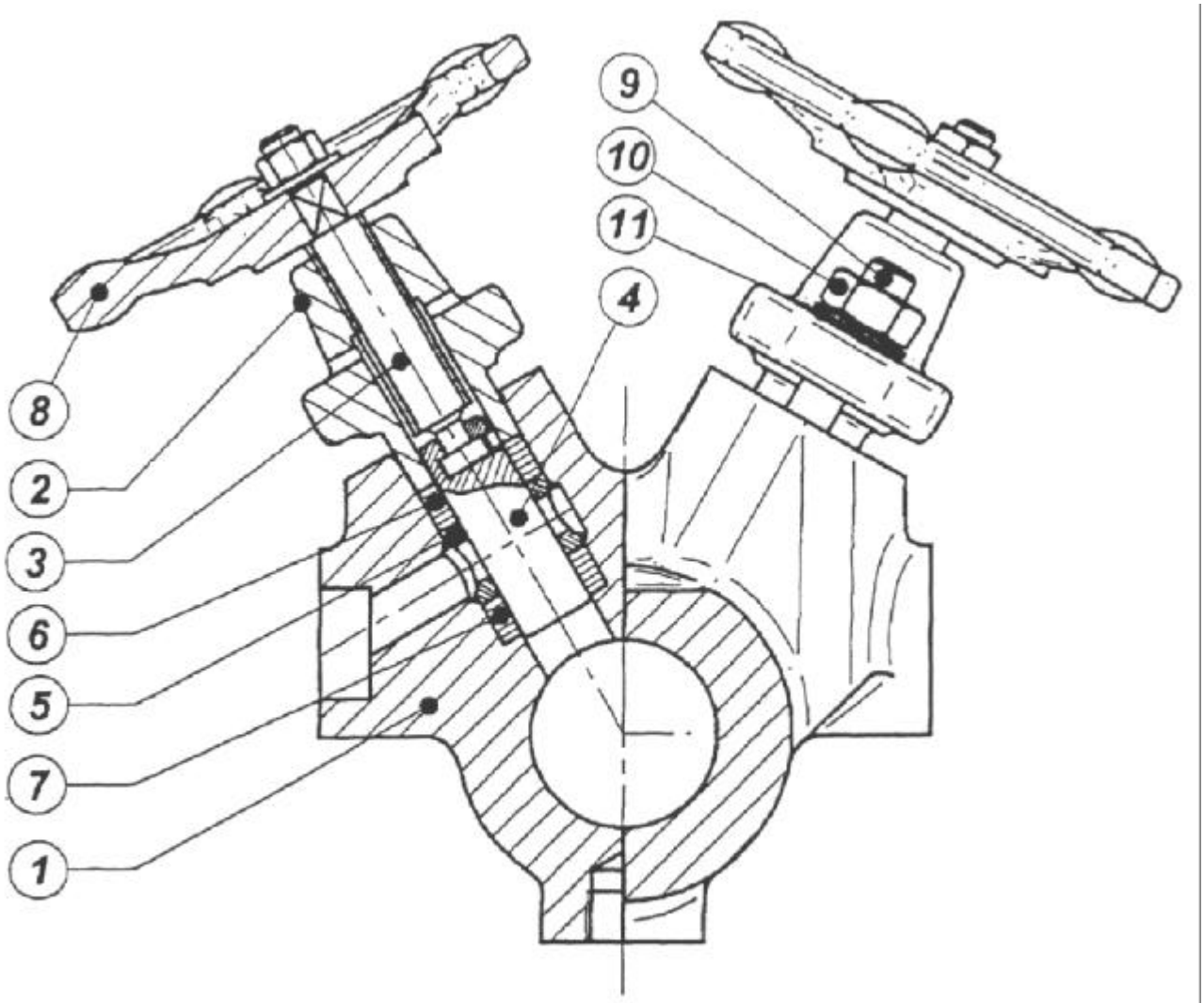


Fig. 3

-2.0 THE DOUGLAS ITALIA MANIFOLD (see FIG. 3)

- **2.1 – THECHICAL FEATURES**

The body and the bonnets (1 and 2) are made in forged steel: it eliminates the risk of porosities that may occur with castings: thus expensive X – RAY or UT examinations to verify the integrity of these components are not required.

Further, the bonnets are " LONG NECK " type to:

- Facilitate the heat dispersion to keep the handwheels at low temperature that is harmless for operators.
- Increase the number of threads for higher rigidity of the system.
- Eliminate the interferences between the handwheels and insulating material, making easier also the thick wrapping.

The stems (3) are made in 13% Cr stainless steel, even if they are never in contact with the fluid.

This to:

- Prevent the oxidation of the stems, when the manifold is installed in the open air.
- Obtain a difference in hardness to avoid seizures berween the stems and the bonnets.

The connection of the stem and the piston (4) is a " T " type:

- The " T " shape prevents any disconnection of the two elements that may be possible in case of joint made by threaded bushings.

The pistons are made in Austenitic Stainless Steel, and after accurate machining, they are cold rolled in order to:

- Increase the surface hardness
- Obtain a very smooth surface (RA = 0,2μ).

Also :

- The sealing rings are made in reinforced graphite (valve ring above 6) and in graphite interposed with thin stainless steel plates (valve ring below 7).
- The handwheels have a large diameter for a better manoeuvring of the valves
- The diameter of the piston is 15 mm.

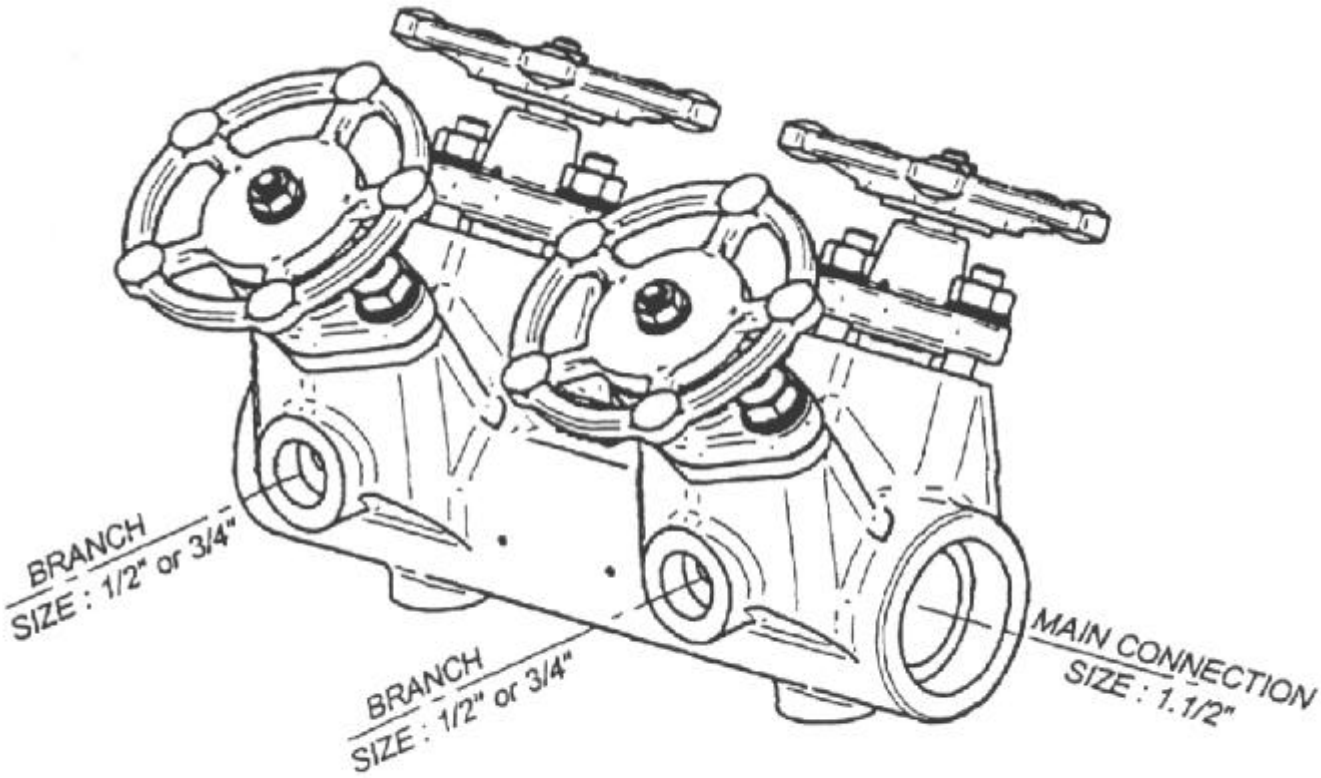


Fig. 4

- 2.2 – STANDARD CONFIGURATION

In this standard configuration, the MANIFOLD has:

- Main connections : sizes 1½" SW (according to ANSI B16.11).
- Branch : size ½" or ¾" (SW ANSI B16.11 or NPT ANSI B1.20.1) connections both for steam distribution and condensate collection. (see fig. 4).

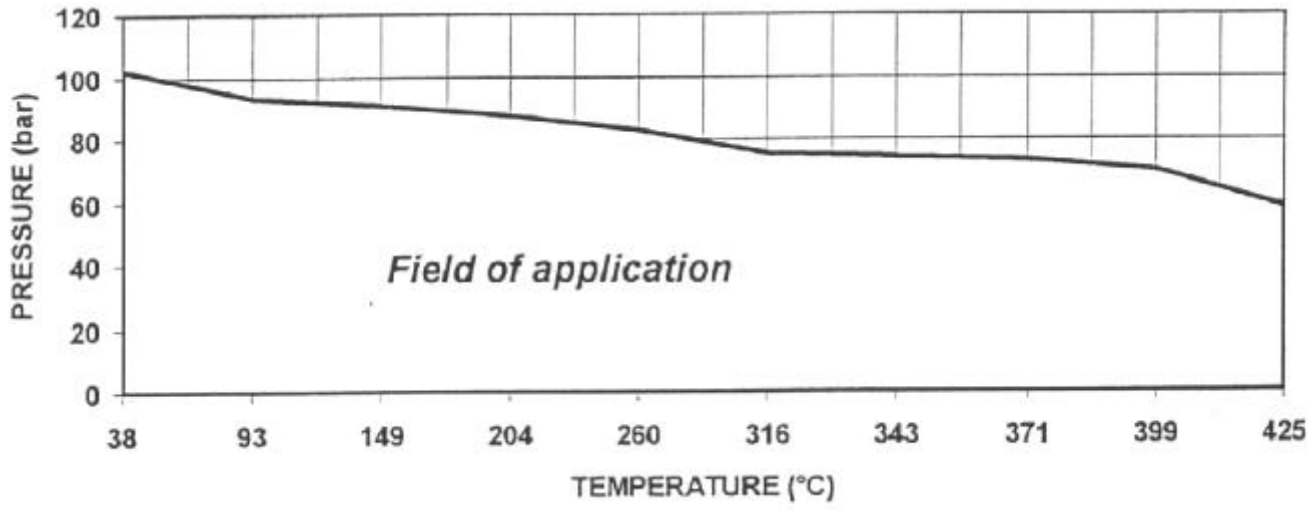
Upon Customer request, the Manifold can be supplied with:

- 1½" BW connections
- ½" or ¾" BW connections

The basic pattern has 4 valves (MPV 04) ; Manifolds with 6 , 8 , 10 or 12 valves are obtained by welding together two or more basic patterns (see data sheet enclosed). The standard welds are SW type ; if welds are required to be X – RAYED , they can be BW. The Manifold can be supplied with a insulation jackets model " DOUGLAS JM " illustrated on data sheet N.9C241415 enclosed.

The diagram below show the operating range of manifold with the max. Working pressure related to temperature.

MANIFOLD PRESSURE – TEMPERATURE RATING to ANSI B16.34



- 2.3 – THE VALVE TRIMS

The sealing system is made by a piston (4) in austenitic stainless steel that slider into two rings, one valve ring above (6) made in reinforced graphite, and one valve ring below (7) made in graphite interposed with thin stainless steel plates.
The sealing surface is the surface of the piston. By tightening the bonnet nuts (9) that act on the spring washers (11), a constant load on the upper ring is obtained, securing the sealing toward the atmosphere. The same load, through the valve ring above (6) and the lantern (5), is applied to the lower ring that, by expanding itself the body (1) wall, and toward the surface of the piston when the valve is in closed position, ensures a perfect sealing of the valve against the flow of the fluid. Thanks to its very high resistance to the heat and to aggressive fluid, graphite has been selected as the primary component of the sealing rings. The valve ring below (7) is made by interposing sheets of graphite and thin stainless steel plates with the purpose to give mechanical streght to the graphite, and to avoid that, when the valve is in open position, the graphite would collapse toward the empty space left by the piston. If this happens, the inner diameter of the lower ring will be reduced, seriously compromising the sealing of the valve. Futher, the graphite has a lubricating effect of the piston surface.

- **2.4 – ADVANTAGES OF THE PISTONS VALVE:**

- EASY MANOEUVRING: that piston valve has a smooth manoeuvrability, unlike the valves with metal – to – metal sealing, that require strength to be closed, especially in presence of dirty fluids.
- HAS A WIDE SEALING SURFACE: this is the inner surface of the rings, and acts directly onto the piston surface ; its sealing surface, wider than the one of any other type of conventional valves, makes the PISTON VALVE suitable for the most severe services.
- IT IS SELF – COMPENSATING: the spring washers assembled under the nuts keep a constant load on the graphite rings, thus compensating any pressure or temperature variation and providing the best and lasting sealing of the valve both in cut off of fluid and toward the atmosphere .
- EASY MAINTENANCE:removalof the valve body from the line is not necessary ; it is enought to loose the bonnet nuts, remove the bonnet and replace both the upper and lower rings to bring the valve in an " as new " condition. It greatly reduces the operating cost and eliminates any machining operation to restore seat and disc.
- NO EROSION OR DAMAGING OF THE SEALING COMPONENTS – SELF CLEANING EFFECT: when the valve is open, only the lower face of the piston is in contact with the fluid, thus the sealing surface, not in contact with the fluid, can not be erode. When the valve is closed and the piston is inserted into the lower ring, solid particles or impurities, in the fluid are removed from the inner surface of the lower ring so that these imputities, detrimental to the valve sealing, can not accumulate, and damage the surface of the piston.
- QUICK RE – TIGHTENING: should a leak toward atmosphere occur, it is enough to tighten the nuts over the spring washers to restore a perfect sealing.

- 3.0 – OTHER POSSIBILE UTILIZATIONS OF THE MANIFOLD

The MANIFOLD, in addition to be used in the chemical and petrochemical industry, can be advantageously utilized both for steam distribution and condensate collection, anywhere steam in used.

For instance:

- RUBBER INDUSTRY: to heat up dies into presses
- TEXTILE INDUSTRY: for cylinder drying
- INDUSTRIAL PRESSING: for steam pressing
- FOOD INDUSTRY: to heat up autoclave

DOUGLAS ITALIA

FORGED PISTON

MPV 04

MPV 08

MPV 12

GO BACK

DOUGLAS ITALIA S.P.A.

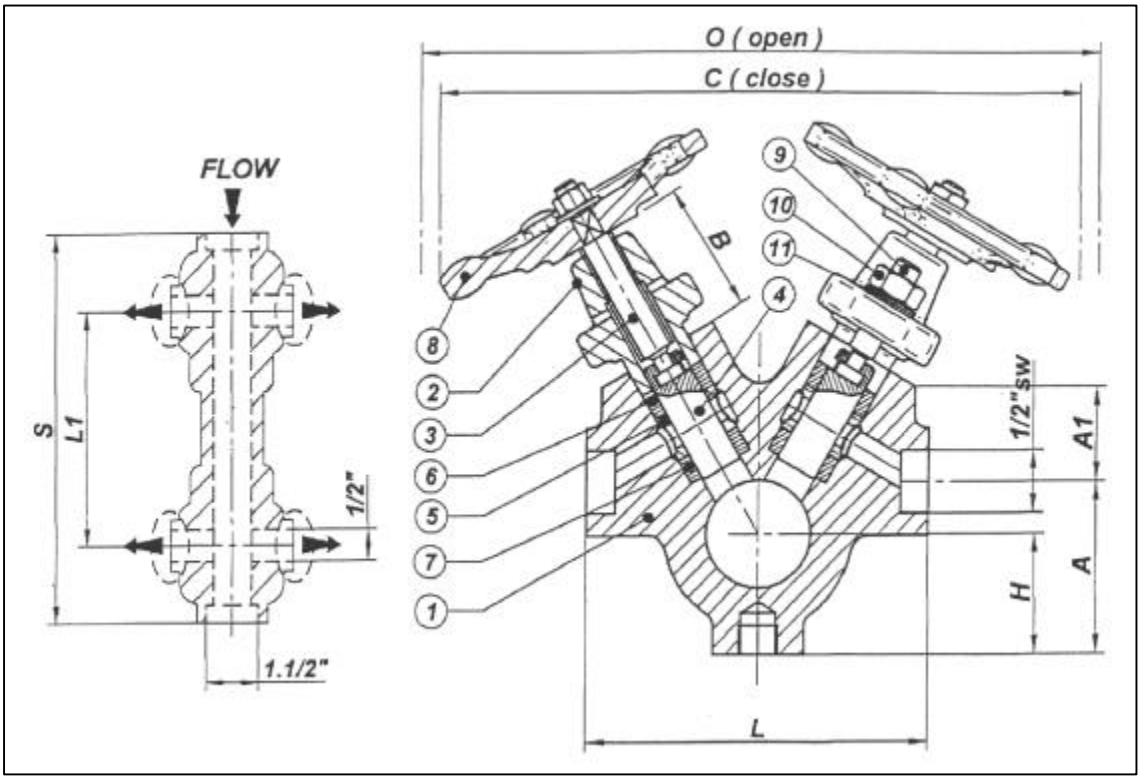
FORGED PISTON MANIFOLD DOUGLAS
MPV 04

FOR STEAM DISTRIBUTION AND CONDENSATE COLLECTION

LIMITING CONDITIONS (according to ISO 6552)	
Rating	ANSI 600
Max. allowable pressure	100 bar
Max. allowable temperature	400°C

CONNECTIONS
No. 2 Header size 1½"SW (ANSI B 16.11)
No. 4 Header size ½"SW (ANSI B 16.11)
ALSO AVAILABLE SCREWED ½" NPT / BSP

POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A105 N	
2	Bonnet	ASTM A105 N	
3	Stem	ASTM A182 F6	
4	Piston	ASTM F304	X
5	Lantern	ASTM A105	X
6	Valve ring above	GRAPHITE	X
7	Valve ring below	GRAPHITE / S.S.	X
8	Handwheel	ASTM A105	
9	Stud	ASTM A193 B7	
10	Nut	ASTM A194 2H	
11	Spring washer	C.S	



TYPE	S	S1	L	L1	H	A	A1	B	C	O
MPV 04	272	/	120	162	41	59	31	71	228	270

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

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DOUGLAS ITALIA S.P.A.

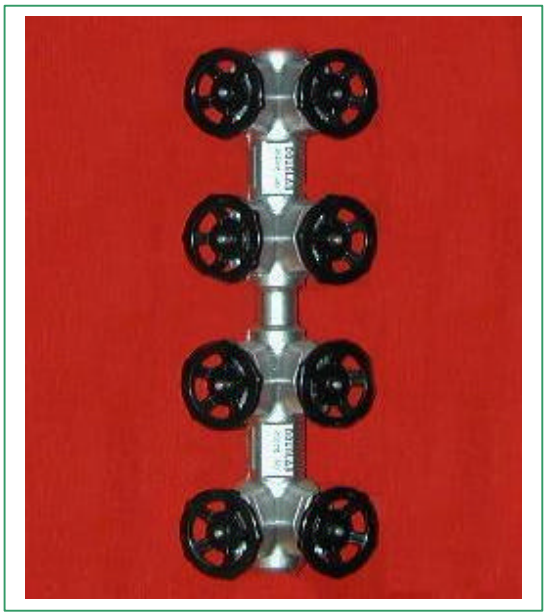
FORGED PISTON MANIFOLD DOUGLAS
MPV 08

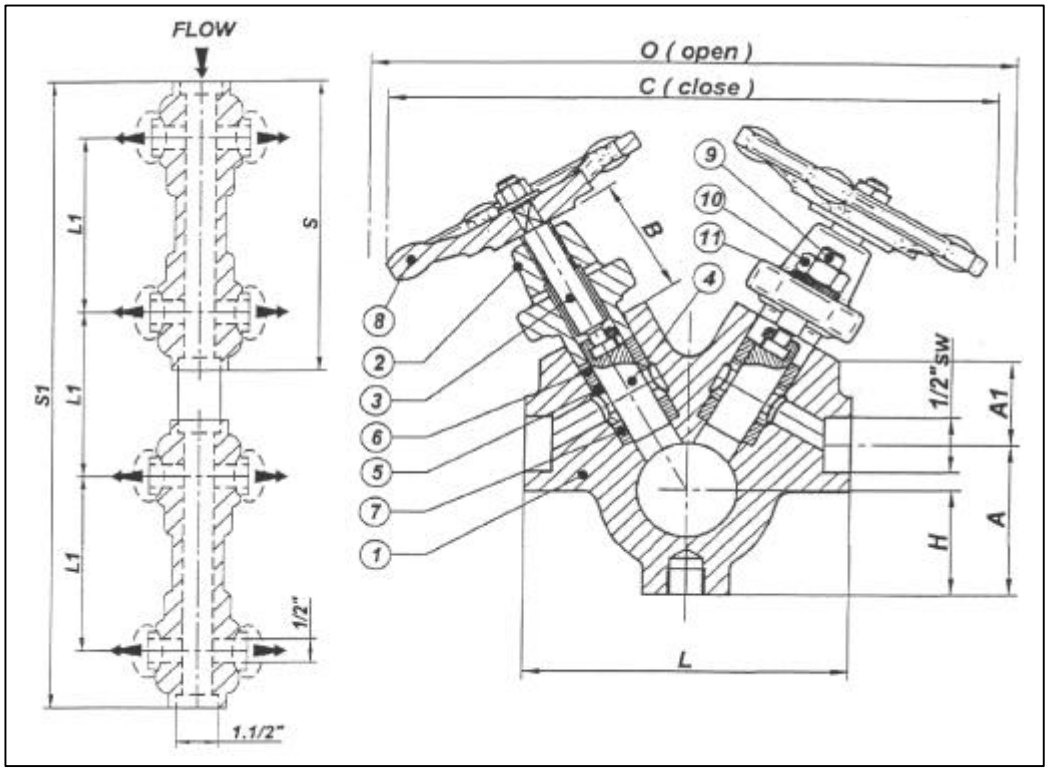
FOR STEAM DISTRIBUTION AND CONDENSATE COLLECTION

LIMITING CONDITIONS (according to ISO 6552)	
Rating	ANSI 600
Max. allowable pressure	100 bar
Max. allowable temperature	400°C

CONNECTIONS
No. 2 Header size 1½"SW (ANSI B 16.11)
No. 8 Header size ½"SW (ANSI B 16.11)
ALSO AVAILABLE SCREWED ½" NPT / BSP

POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A105 N	
2	Bonnet	ASTM A105 N	
3	Stem	ASTM A182 F6	
4	Piston	ASTM F304	X
5	Lantern	ASTM A105	X
6	Valve ring above	GRAPHITE	X
7	Valve ring below	GRAPHITE / S.S.	X
8	Handwheel	ASTM A105	
9	Stud	ASTM A193 B7	
10	Nut	ASTM A194 2H	
11	Spring washer	C.S	





TYPE	S	S1	L	L1	H	A	A1	B	C	O
MPV 08	272	596	120	162	41	59	31	71	228	270

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DOUGLAS ITALIA S.P.A.

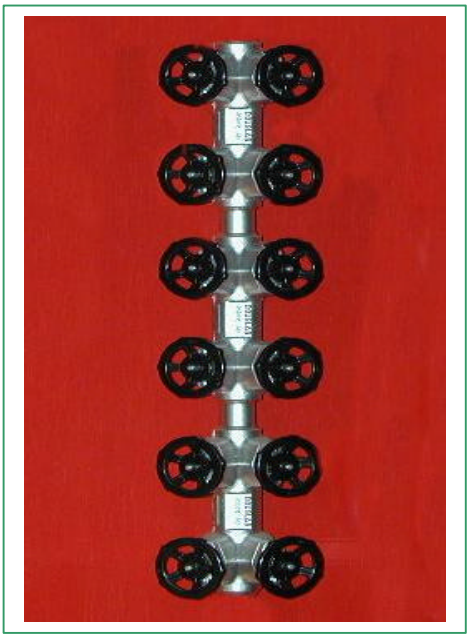
FORGED PISTON MANIFOLD DOUGLAS
MPV 12

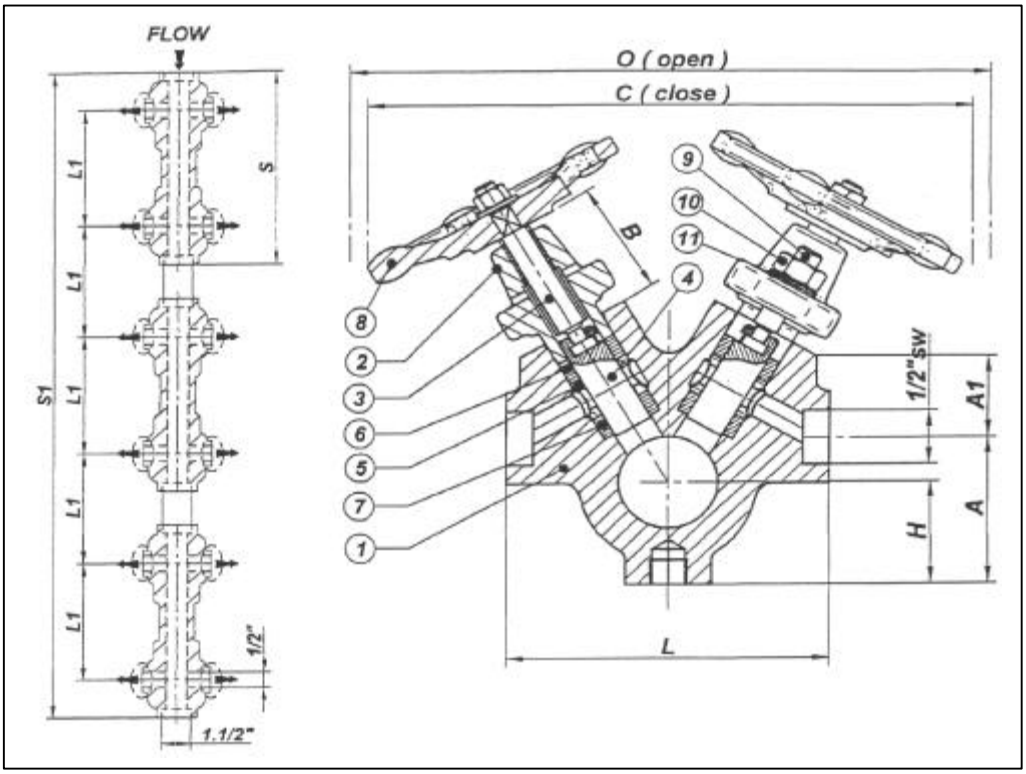
FOR STEAM DISTRIBUTION AND CONDENSATE COLLECTION

LIMITING CONDITIONS (according to ISO 6552)	
Rating	ANSI 600
Max. allowable pressure	100 bar
Max. allowable temperature	400°C

CONNECTIONS
No. 2 Header size 1½"SW (ANSI B 16.11)
No. 12 Header size ½"SW (ANSI B 16.11)
ALSO AVAILABLE SCREWED ½" NPT / BSP

POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A105 N	
2	Bonnet	ASTM A105 N	
3	Stem	ASTM A182 F6	
4	Piston	ASTM F304	X
5	Lantern	ASTM A105	X
6	Valve ring above	GRAPHITE	X
7	Valve ring below	GRAPHITE / S.S.	X
8	Handwheel	ASTM A105	
9	Stud	ASTM A193 B7	
10	Nut	ASTM A194 2H	
11	Spring washer	C.S	





TYPE	S	S1	L	L1	H	A	A1	B	C	O
MPV 12	272	920	120	162	41	59	31	71	228	270

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DOUGLAS ITALIA

COMPACT DRAIN

- MFH A105
- MFH F304
- MFHF A105
- MFHF F304

GO BACK

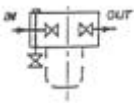
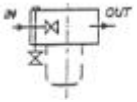
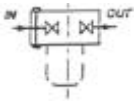
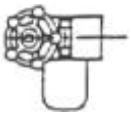
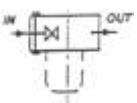
DOUGLAS ITALIA S.P.A.

COMPACT DRAIN MANIFOLD DOUGLAS
MFH A105

FOR INVERTED BUCKET STEAM TRAP DOUGLAS IF

MFH MANIFOLD CONFIGURATIONS

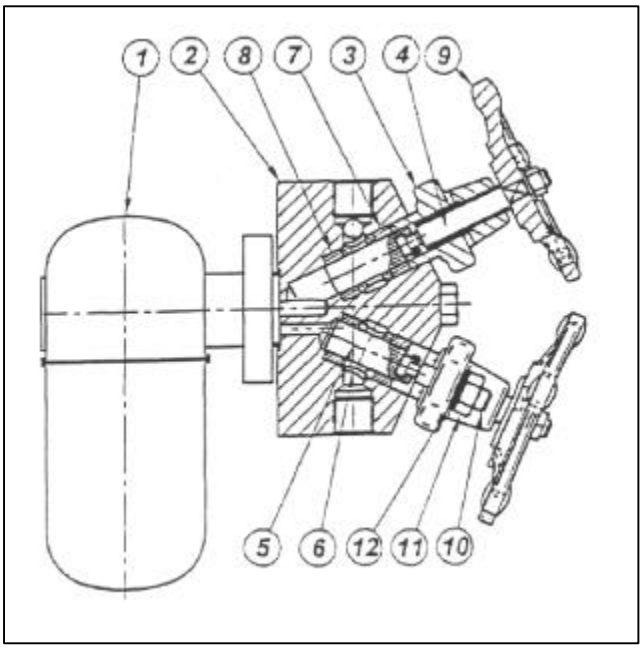
TYPE	CONNECTION DIAGRAM
MFH2D	• Inlet piston valve • Outlet piston valve • Drain valve
MFH1D	• Inlet piston valve • Drain valve
MFH2	• Inlet piston valve • Outlet piston valve
MFH1	• Inlet piston valve

TYPE		CONNECTION DIAGRAM
MFH2D		
MFH1D		
MFH2		
MFH1		

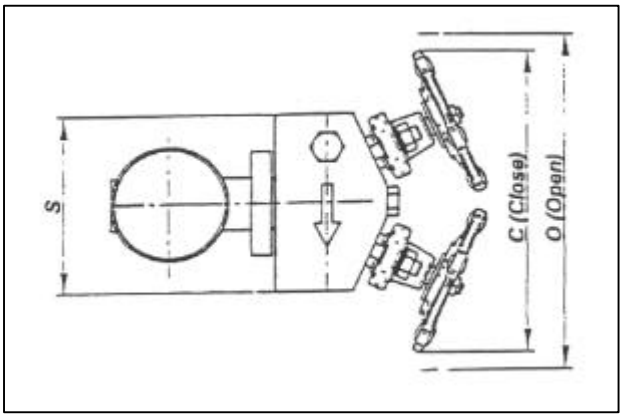
LIMITING CONDITIONS (according to ISO 6552)	
Body designed conditions acc. to ANSI class 300	
Max. allowable pressure	50 bar
Max. allowable temperature	400°C

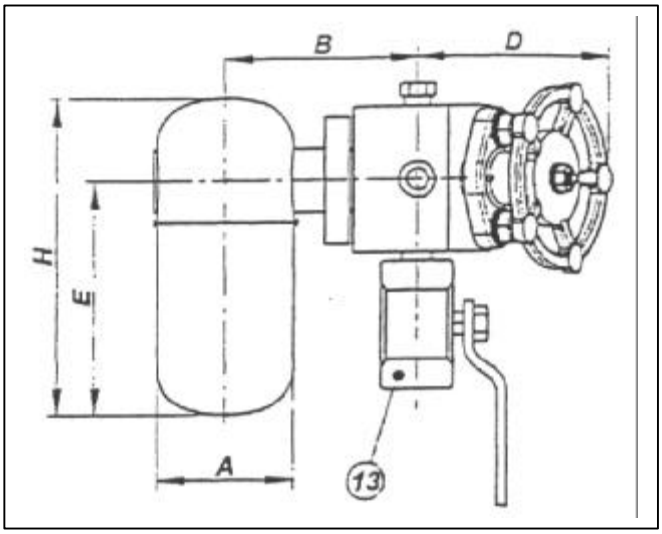
CONNECTIONS	
Inlet and outlet	½" NPT / BSP / SW (ANSI B1.20.1)
Drain	¼" NPT (ANSI B1.20.1)

COMPACT DRAIN MANIFOLD DOUGLAS
MFH A105



POS.	DESCRIPTION	MATERIALS	SPARES
1	Inverted bucket steam trap model Douglas IF	Stainless Steel	
2	Body	ASTM A105	
3	Bonnet	ASTM A105	
4	Stem	ASTM A182 F6	
5	Piston	ASTM F304	X
6	Lantern	ASTM A105	X
7	Valve ring above	GRAPHITE	X
8	Valve ring below	GRAPHITE / S.S.	X
9	Handwheel	ASTM A105	
10	Stud	ASTM A193 B7	
11	Nut	ASTM A194 2H	
12	Spring washer	C.S.	
13	Drain valve	Carbon Steel	





SIZE (inches)	WEIGHT Kg	S	A	B	D	H	E	C	O
½"	7	120	73	104	107	174	129	228	270

How to order: i.e. MFH2D A105 ½" NPT

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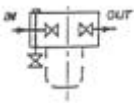
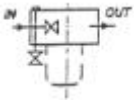
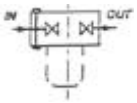
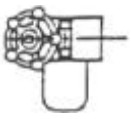
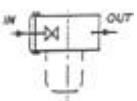
DOUGLAS ITALIA S.P.A.

COMPACT DRAIN MANIFOLD DOUGLAS
MFH F304

FOR INVERTED BUCKET STEAM TRAP DOUGLAS IF

MFH MANIFOLD CONFIGURATIONS

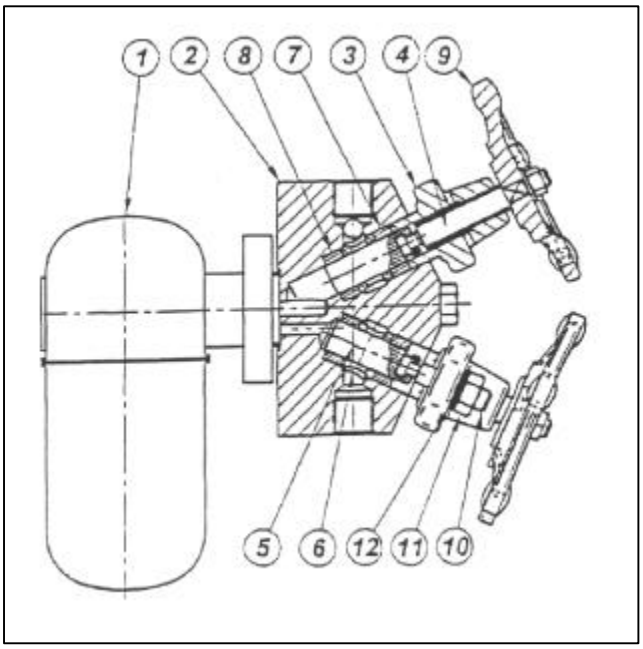
TYPE	CONNECTION DIAGRAM
MFH2D	• Inlet piston valve • Outlet piston valve • Drain valve
MFH1D	• Inlet piston valve • Drain valve
MFH2	• Inlet piston valve • Outlet piston valve
MFH1	• Inlet piston valve

TYPE		CONNECTION DIAGRAM
MFH2D		
MFH1D		
MFH2		
MFH1		

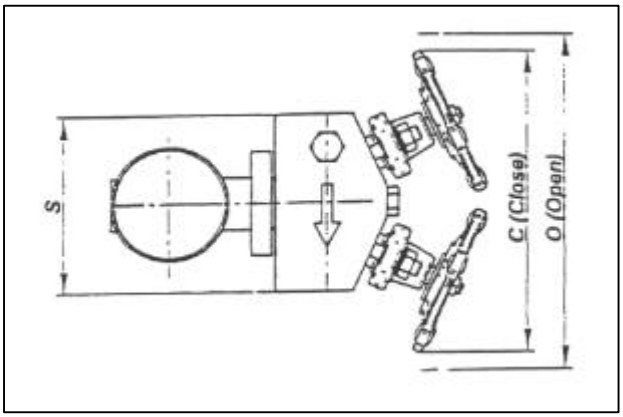
LIMITING CONDITIONS (according to ISO 6552)	
Body designed conditions acc. to ANSI class 300	
Max. allowable pressure	50 bar
Max. allowable temperature	400°C

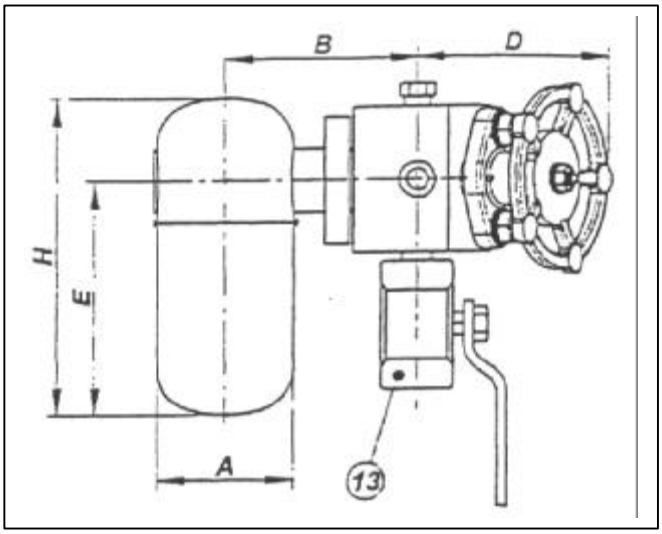
CONNECTIONS	
Inlet and outlet	½" NPT / BSP / SW (ANSI B1.20.1)
Drain	¼" NPT (ANSI B1.20.1)

COMPACT DRAIN MANIFOLD DOUGLAS
MFH F304



POS.	DESCRIPTION	MATERIALS	SPARES
1	Inverted bucket steam trap model Douglas IF	Stainless Steel	
2	Body	ASTM A182 F304	
3	Bonnet	ASTM A182 F304	
4	Stem	ASTM A182 F6	
5	Piston	ASTM F304	X
6	Lantern	ASTM A182 F304	X
7	Valve ring above	GRAPHITE	X
8	Valve ring below	GRAPHITE / S.S.	X
9	Handwheel	ASTM A105	
10	Stud	ASTM A193 B8	
11	Nut	ASTM A194 Gr.8	
12	Spring washer	C.S.	
13	Drain valve	Stainless Steel	





SIZE (inches)	WEIGHT Kg	S	A	B	D	H	E	C	O
½"	7	120	73	104	107	174	129	228	270

How to order: i.e. MFH2D F304 ½" NPT

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DOUGLAS ITALIA S.P.A.

COMPACT DRAIN MANIFOLD WITH INCORPORED STRAINER

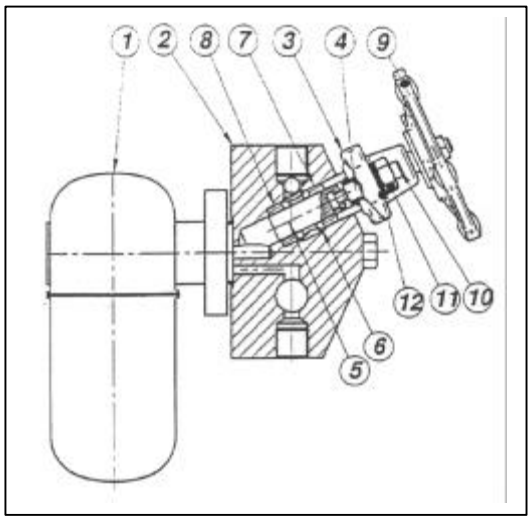
MFHF A105

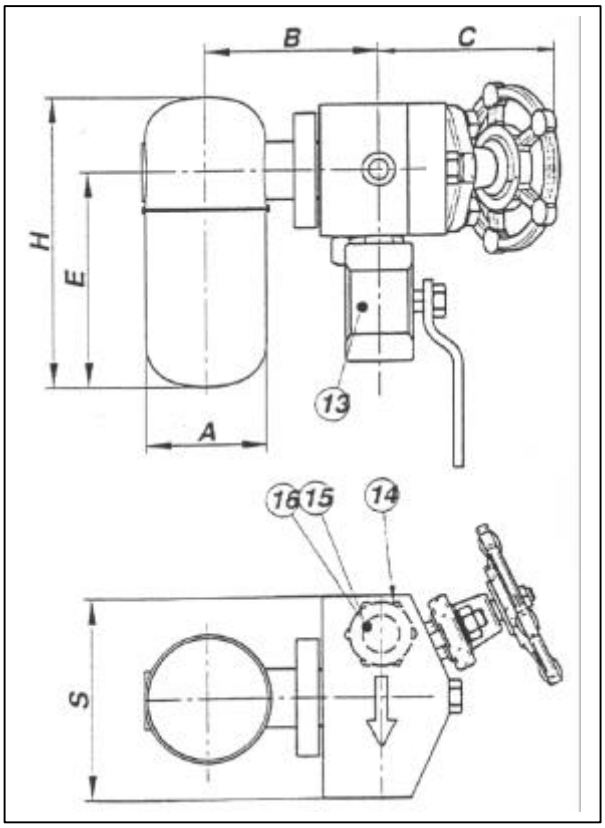
FOR INVERTED BUCKET STEAM TRAP DOUGLAS IF

LIMITING CONDITIONS (according to ISO 6552)	
Body designed conditions acc. to ANSI class 300	
Max. allowable pressure	50 bar
Max. allowable temperature	400°C

CONNECTIONS	
Inlet and outlet	½" NPT / BSP / SW (ANSI B1.20.1)
Drain	¼" NPT (ANSI B1.20.1)

POS.	DESCRIPTION	MATERIALS	SPARES
1	Inverted bucket steam trap model Douglas IF	Stainless Steel	
2	Body	ASTM A105	
3	Bonnet	ASTM A105	
4	Stem	ASTM A182 F6	
5	Piston	ASTM F304	X
6	Lantern	ASTM A182 F304	X
7	Valve ring above	GRAPHITE	X
8	Valve ring below	GRAPHITE / S.S.	X
9	Handwheel	ASTM A105	
10	Stud	ASTM A193 B7	
11	Nut	ASTM A194 2H	
12	Spring washer	C.S.	
13	Drain valve	Carbon Steel	
14	Screen plug	ASTM A105	
15	Screen	AISI 304	X
16	Screen gasket	GRAPHITE / S.S.	X





SIZE (inches)	WEIGHT Kg	S	A	B	D	H	E	C	O
½"	10	150	73	104	107	174	129	228	270

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DOUGLAS ITALIA S.P.A.

COMPACT DRAIN MANIFOLD WITH INCORPORED STRAINER

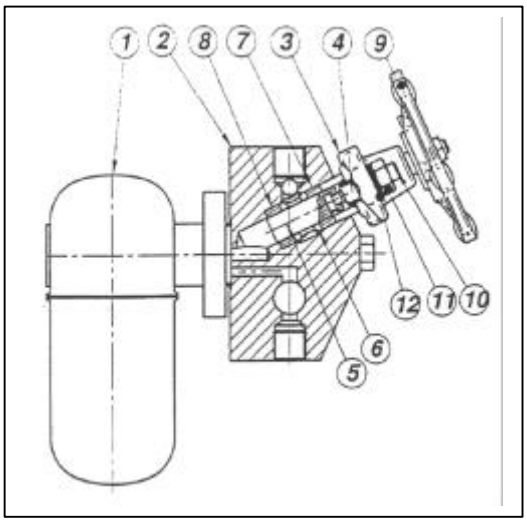
MFHF F304

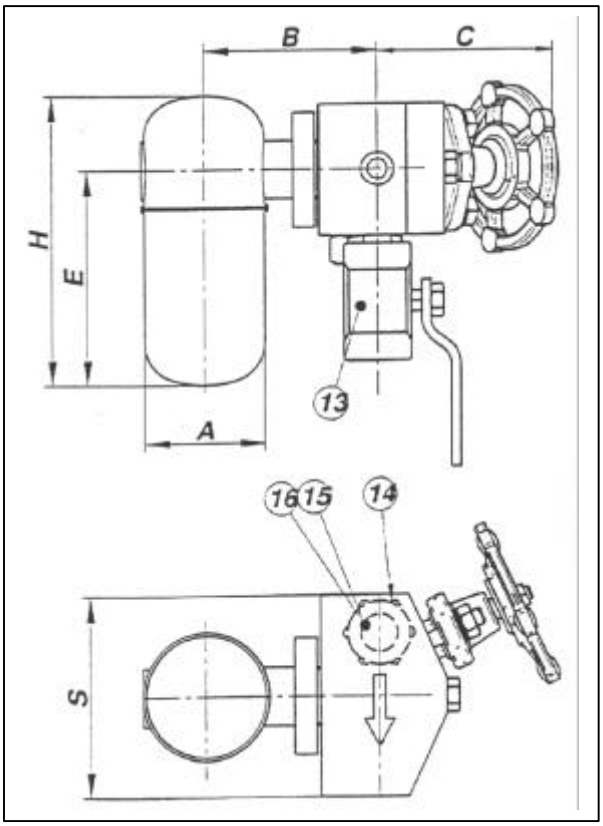
FOR INVERTED BUCKET STEAM TRAP DOUGLAS IF

LIMITING CONDITIONS (according to ISO 6552)	
Body designed conditions acc. to ANSI class 300	
Max. allowable pressure	50 bar
Max. allowable temperature	400°C

CONNECTIONS	
Inlet and outlet	½" NPT / BSP / SW (ANSI B1.20.1)
Drain	¼" NPT (ANSI B1.20.1)

POS.	DESCRIPTION	MATERIALS	SPARES
1	Inverted bucket steam trap model Douglas IF	Stainless Steel	
2	Body	ASTM A182 F304	
3	Bonnet	ASTM A182 F304	
4	Stem	ASTM A182 F6	
5	Piston	ASTM F304	X
6	Lantern	ASTM A182 F304	X
7	Valve ring above	GRAPHITE	X
8	Valve ring below	GRAPHITE / S.S.	X
9	Handwheel	ASTM A105	
10	Stud	ASTM A193 B8	
11	Nut	ASTM A194 Gr.8	
12	Spring washer	C.S.	
13	Drain valve	Stainless Steel	
14	Screen plug	ASTM A182 F304	
15	Screen	AISI 304	X
16	Screen gasket	GRAPHITE / S.S.	X





SIZE (inches)	WEIGHT Kg	S	A	B	D	H	E	C	O
½"	10	150	73	104	107	174	129	228	270

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DOUGLAS ITALIA

JACKET

JM

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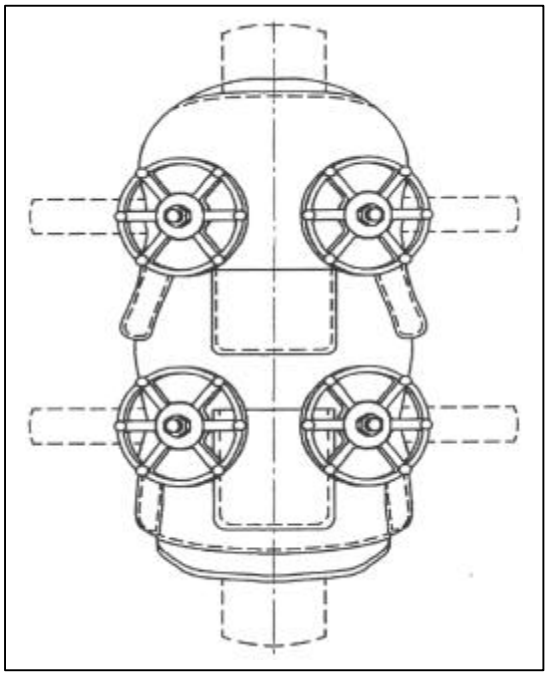
DOUGLAS ITALIA S.P.A.

DOUGLAS
JM

INSULATION JACKETS FOR MANIFOLD INSULATION



DESCRIPTION

The jackets are realized for the insulation of manifold valves ½" up to 12 inlet / outlet.
Douglas JM jackets are especially designed to allow an easy removal and assembly during any of the following operations.

1) ***Welding the manifold on line.*** *The jacket can be removed quickly and assembled once the operation is completed.*
2) ***Visual inspection.*** *Operators can have easy access to the manifolds whenever visual inspection of the body is required.*
3) ***Maintenance.*** *The versatility of our design will allow an easy access to the manifold for maintenance purposes.*

TECHNICAL CONDITIONS

- ***TYPE 1:*** *Insulation from 270°C to 70°C – Internal temperature 270°C*
- ***TYPE 2:*** *Insulation from 410°C to 60°C – Internal temperature 410°C*

MATERIALS

EXTERNAL SIDE	*Sylicon rubber coated with glass flore , waterproof.*
INTERNAL COATING	*Mineral fibre included in glass cloth. Density , 120 Kg / cubic meter , Thickness 20 mm for type 1 and 35 mm for type 2.*
SEALING	*Polyestere velcro.*
DRAWCORD	*Fiberglass.*

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

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DOUGLAS ITALIA

FLOW INDICATORS

FLOW SIGHT GLASSES

FORGED

CAST

GO BACK

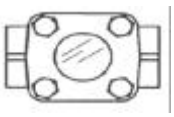
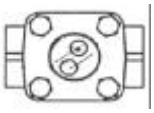
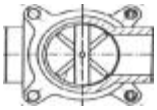
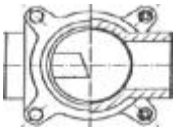
DOUGLAS ITALIA S.P.A.

FLOW SIGHT GLASSES

FLOW SIGHT GLASSES

DOUGLAS ITALIA manufactures a large range of sight flow indicators enabling the user to inspect visually the liquid or gas flowing in the pipeline. They are available in various pressure ranges, materials and components. Sight flow indicators may be supplied equipped with many types of internal flow indicators suitable for different industrial processes. Our model with flappers are particularly suitable for checking the efficiency of steam traps, clearly indicating any loss of live steam.For this use, the sight flow indicators should be installed upstream the steam trap and therefore must be able to withstand the full line pressure.

INDICATORS

TYPE	INDICATORS	FLOW DIRECTION	DESCRIPTION & MATERIALS
A		ANY	
B		➡	FIXED FLAPPERS STAINLESS STEEL 304
C		➡	CHAIN STAINLESS STEEL 304
D		➡ ⬆	FLOATING BALL PTFE
E		ANY	SPINNER STAINLESS STEEL 304
F		➡	STAINLESS STEEL 304

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DOUGLAS ITALIA

FORGED

S 300 A105

S 300 F316

GO BACK

DOUGLAS ITALIA S.P.A.

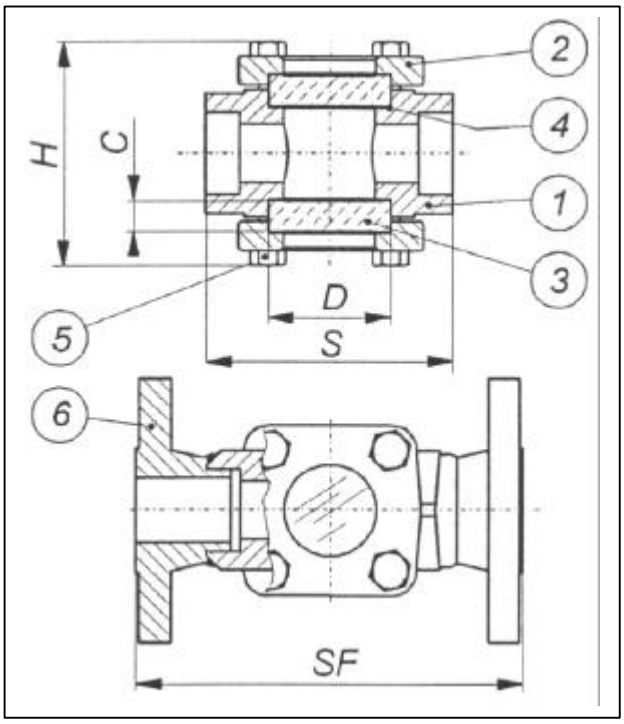
FORGED STEEL
FLOW INDICATORS DOUGLAS
S 300 A105

LIMITING CONDITIONS			
Acc. to the body rating ANSI 300 (B 16.34)			
GLASS CONDITION	TEMPERED		
DN	½" – ¾"	1"	1½"
Norm. work temp.	130°C	130°C	130°C
Max. work temp. (for 300 h)	150°C	150°C	150°C
Termic shock	120°C	120°C	120°C
Max. pressure (bar)	50	50	24
GLASS CONDITION	BOROSILICATE		
DN	½" – ¾"	1"	1½"
Norm. work temp.	280°C	280°C	280°C
Max. work temp. (for 300 h)	300°C	300	300°C
Termic shock	265°C	265°C	265°C
Max. pressure (bar)	50	50	24

CONNECTIONS	
Screwed	ANSI B1.20.1 NPT - BS21 BSP
Socket weld	ANSI B16.11
Flanged	ANSI B16.5 150#/300# / UNI / DIN / PN 16/25/40

POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A105	
2	Flange	ASTM A105	
3	Glass	TEMPERED	X
4	Gasket	CAF	X
5	Bolt	ASTM A193 B7	
6	Flange	ASTM A105	

(3) Borosilicate acc. to DIN7080 , on request
(4) C.A.F. : Compressed Aramidic Fibre



SIZE	S	H	D	C	Weight Kg	(SF) ANSI-UNI-DIN
½"	90	84	40	12	1.3	130
¾"	90	84	40	12	1.3	150
1"	110	94	50	12	2.3	160
1½"	127	114	70	12	3.5	200

How to service:

Maintenance of flow indicators should be made whenever the visibility through the window is poor. Follow the points here below:

1) *Make sure that the main line is shut-off*
2) *Loosen bolts (5) and remove covers (2), glasses (3) and the four gaskets*
3) *Clean the inside of the body to remove any dirt.*
4) *Clean the two glasses with a soft cloth using if necessary a suitable cleaning fluid. If glasses are damage or cracked replace them.*
5) *Reassemble all the elements replacing the four gaskets.*
6) *Slowy give pressure to the line checking for leaks.*

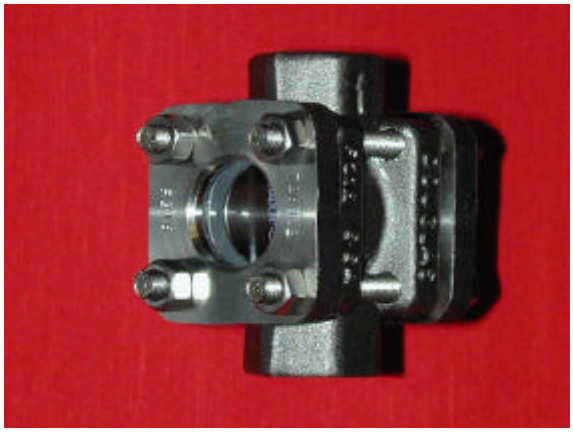
DOUGLAS ITALIA S.p.A Località Pradaglie – 29013 CARPANETO PIACENTINO (PC)

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

FORGED STEEL
FLOW INDICATORS DOUGLAS
S 300 F316

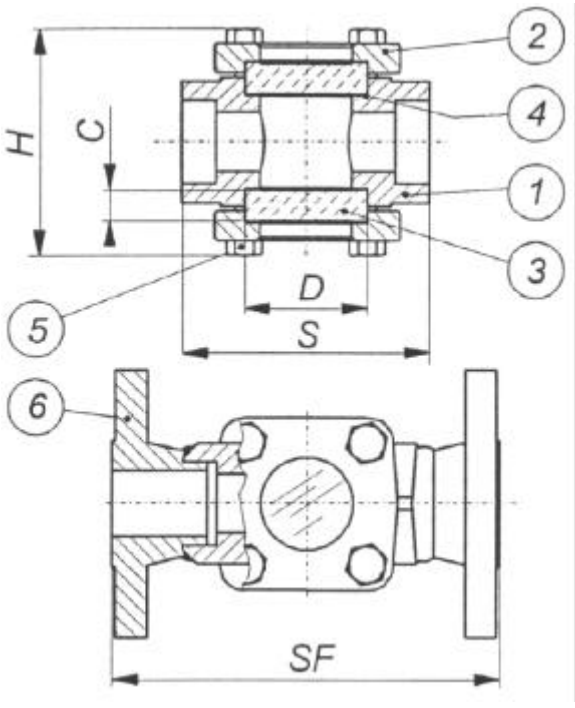
LIMITING CONDITIONS			
Acc. to the body rating ANSI 300 (B 16.34)			
GLASS CONDITION	TEMPERED		
DN	½" – ¾"	1"	1½"
Norm. work temp.	130°C	130°C	130°C
Max. work temp. (for 300 h)	150°C	150°C	150°C
Termic shock	120°C	120°C	120°C
Max. pressure (bar)	50	50	24
GLASS CONDITION	BOROSILICATE		
DN	½" – ¾"	1"	1½"
Norm. work temp.	280°C	280°C	280°C
Max. work temp. (for 300 h)	300°C	300	300°C
Termic shock	265°C	265°C	265°C
Max. pressure (bar)	50	50	24



CONNECTIONS	
Screwed	ANSI B1.20.1 NPT - BS21 BSP
Socket weld	ANSI B16.11
Flanged	ANSI B16.5 150#/300# / UNI / DIN / PN 16/25/40

POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A182 F316	
2	Flange	ASTM A182 F316	
3	Glass	TEMPERED	X
4	Gasket	CAF	X
5	Bolt	ASTM A193 B8	
6	Flange	ASTM A182 F316	

(3) Borosilicate acc. to DIN7080 , on request
(4) C.A.F. : Compressed Aramidic Fibre



SIZE	S	H	D	C	Weight Kg	(SF) ANSI-UNI-DIN
½"	90	84	40	12	1.3	130
¾"	90	84	40	12	1.3	150
1"	110	94	50	12	2.3	160
1½"	127	114	70	12	3.5	200

How to service:

Maintenance of flow indicators should be made whenever the visibility through the window is poor. Follow the points here below:

1) *Make sure that the main line is shut-off*
2) *Loosen bolts (5) and remove covers (2), glasses (3) and the four gaskets*
3) *Clean the inside of the body to remove any dirt.*
4) *Clean the two glasses with a soft cloth using if necessary a suitable cleaning fluid. If glasses are damage or cracked replace them.*
5) *Reassemble all the elements replacing the four gaskets.*
6) *Slowy give pressure to the line checking for leaks.*

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA

CAST

S 150 WCB

S 150 CF8M

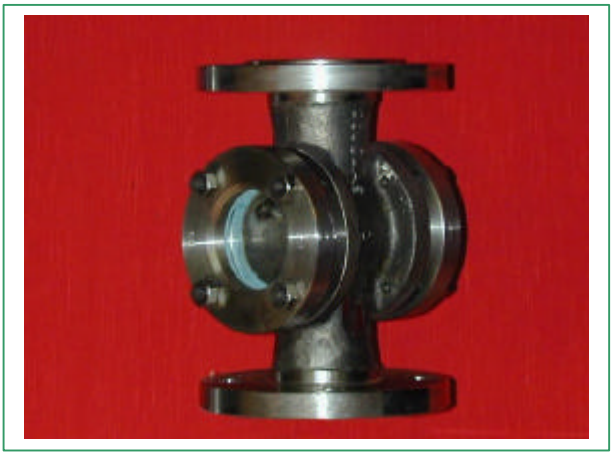
GO BACK

DOUGLAS ITALIA S.P.A.

CAST STEEL FLOW INDICATORS DOUGLAS

S 150 WCB

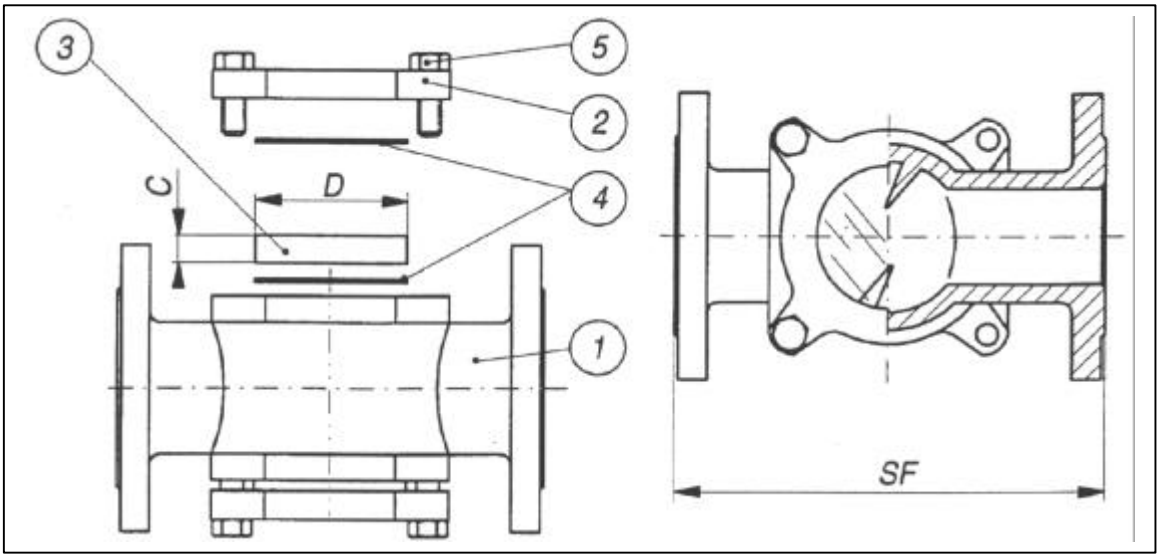
LIMITING CONDITIONS	
Acc. to the body rating DIN PN 25 up to 4" – DIN PN16 for 6"- 8"	
GLASS CONDITION	
MAX. WORK TEMPERATURE	
Tempered glass	180°C
Borosilicate glass	300°C



CONNECTIONS	
Flanged	ANSI B16.5 150#/300# / UNI / DIN / PN 16/25/40

POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A216 WCB	
2	Flange	ASTM A216 WCB	
3	Glass	TEMPERED	X
4	Gasket	CAF	X
5	Bolt	ASTM A193 B7	

(3) Borosilicate acc. to DIN7080 , on request
(4) C.A.F. : Compressed Aramidic Fibre



Size (inches)	2"	3"	4"	6"	8"
D	80	110	135	200	250
C	15	20	25	25	25
Weight (Kg)	10.5	20	26.5	68	125
(SF) ANSI-UNI-DIN	230	310	350	480	600

How to service:

Maintenance of flow indicators should be made whenever the visibility through the window is poor. Follow the points here below:

1) *Make sure that the main line is shut-off*
2) *Loosen bolts (5) and remove covers (2), glasses (3) and the four gaskets*
3) *Clean the inside of the body to remove any dirt.*
4) *Clean the two glasses with a soft cloth using if necessary a suitable cleaning fluid. If glasses are damage or cracked replace them.*
5) *Reassemble all the elements replacing the four gaskets.*
6) *Slowy give pressure to the line checking for leaks.*

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

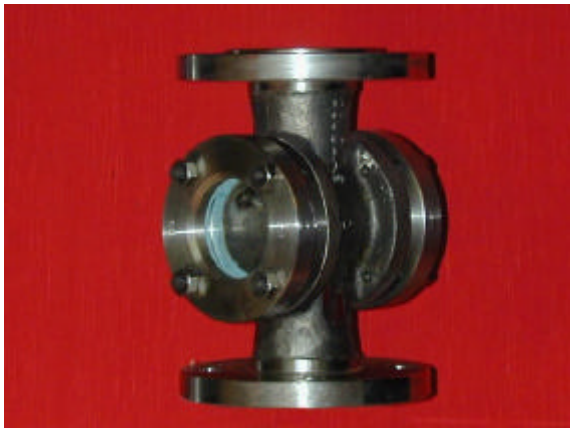
OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

CAST STEEL FLOW INDICATORS DOUGLAS
S 150 CF8M

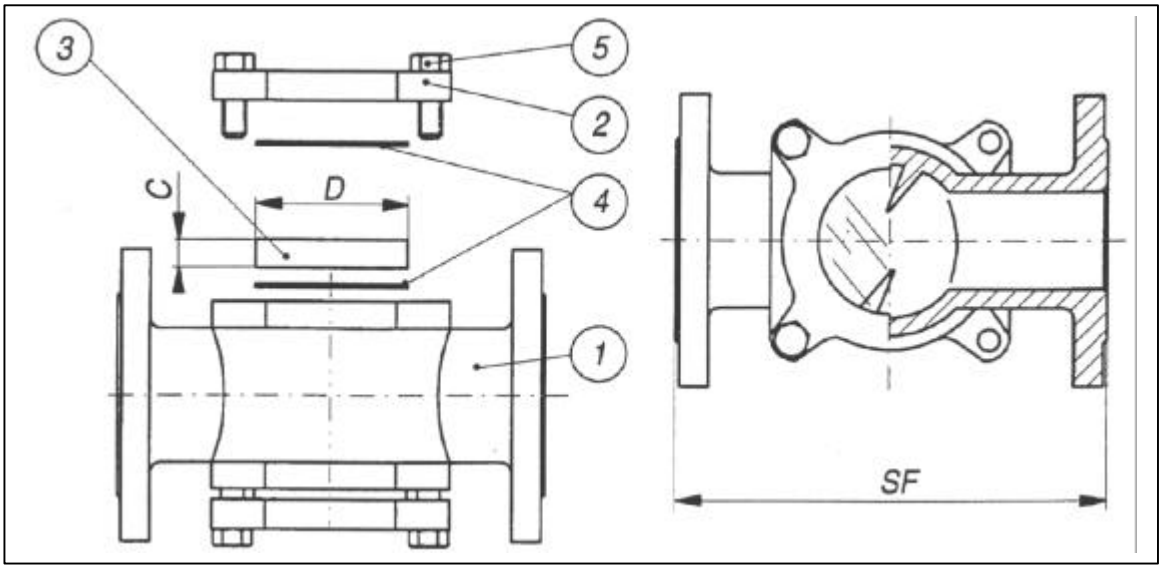
LIMITING CONDITIONS	
Acc. to the body rating DIN PN 25 up to 4" – DIN PN16 for 6"- 8"	
GLASS CONDITION	
MAX. WORK TEMPERATURE	
Tempered glass	180°C
Borosilicate glass	300°C

CONNECTIONS	
Flanged	ANSI B16.5 150#/300# / UNI / DIN / PN 16/25/40



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A351 CF8M	
2	Flange	ASTM A351 CF8M	
3	Glass	TEMPERED	X
4	Gasket	CAF	X
5	Bolt	ASTM A193 B8	

(3) Borosilicate acc. to DIN7080 , on request
(4) C.A.F. : Compressed Aramidic Fibre



Size (inches)	2"	3"	4"	6"	8"
D	80	110	135	200	250
C	15	20	25	25	25
Weight (Kg)	10.5	20	26.5	68	125
(SF) ANSI-UNI-DIN	230	310	350	480	600

How to service:

Maintenance of flow indicators should be made whenever the visibility through the window is poor. Follow the points here below:

1) *Make sure that the main line is shut-off*
2) *Loosen bolts (5) and remove covers (2), glasses (3) and the four gaskets*
3) *Clean the inside of the body to remove any dirt.*
4) *Clean the two glasses with a soft cloth using if necessary a suitable cleaning fluid. If glasses are damage or cracked replace them.*
5) *Reassemble all the elements replacing the four gaskets.*
6) *Slowy give pressure to the line checking for leaks.*

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA

STRAINERS

- "Y" FORGED
- "Y" CAST
- TEMPORARY
- TEE
- SIMPLEX

GO BACK

DOUGLAS ITALIA

“ Y “ FORGED

- F 800 A105
- F 800 F316
- F 1500 A105
- F 1500 F316

GO BACK

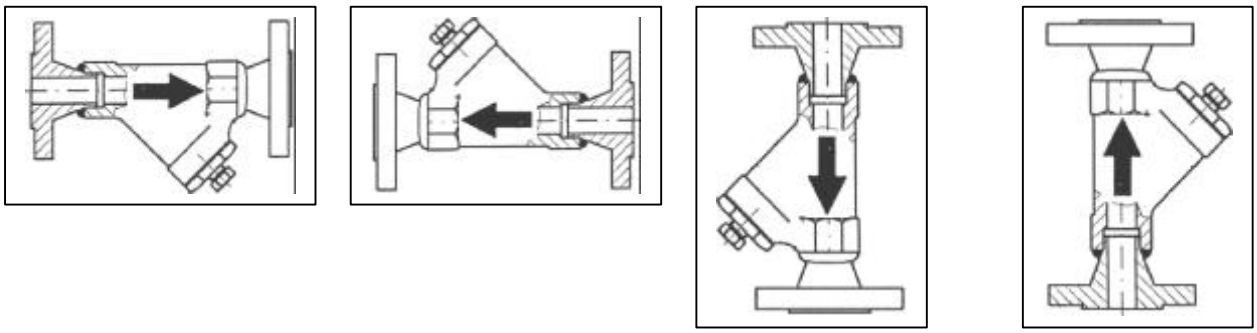
DOUGLAS ITALIA S.P.A.

FORGED STEEL " Y "
TYPE STRAINER DOUGLAS
F800 A105

STRAINERS

Designed to ANSI B16.34 the strainer bodies are produced with a superior wallthickness for corrosion allowance.
Standard stainers are equipped with screens for the average service of most mediums (steam, gas, air, oil, chemicals , ect.).
The large screen open area ensures an efficent filtering action with a low pressure drop.
Filtering area to inlet area ratio is larger than 3 to 1 .
Screens area manufactured with perforated plate in the materials and with the perforation specified in the relevant tables .
Screens with different peforation (or wire mesh) and materials may be manufactured on request.

INSTALLATION



1 CORRECT	2 INCORRECT	3 CORRECT	4 INCORRECT

- *All strainers should be mounted as close as possible to the valve or machinery which they are being installed to protect. It is important to ensure that the strainer installed with the flow following the same direction as the flow direction arrow cast onto the strainer body.*
- *For mounting in horizontal or inclined pipelines, ensure that the screen housing is always mounted below the pipeline.*
- *" Y " – strainers should never be installed in vertical pipelines in the upward flow condition. (see above)*

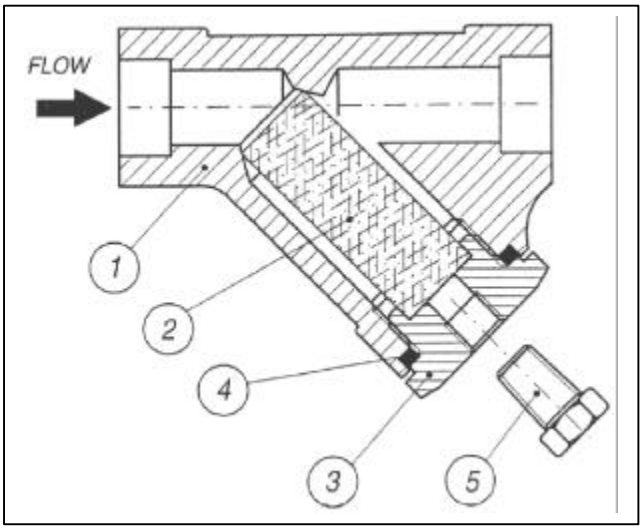
SIZES
3/8" – ½" – ¾" – 1" – 1½" – 2"

CONNECTIONS	
Screwed	ANSI B1.20.1 (NPT) / BS21 (BSP)
Buttweld	ANSI B16.25
Socket Welding	ANSI B16.11
Flanged	ANSI / UNI / DIN

LIMITING CONDITIONS (according to ISO 6552)
According to the body rating (ANSI B16.34)
F800 –ANSI 800
OTHER RATINGS ON REQUEST

FORGED STEEL " Y " TYPE STRAINER DOUGLAS

F800 A105

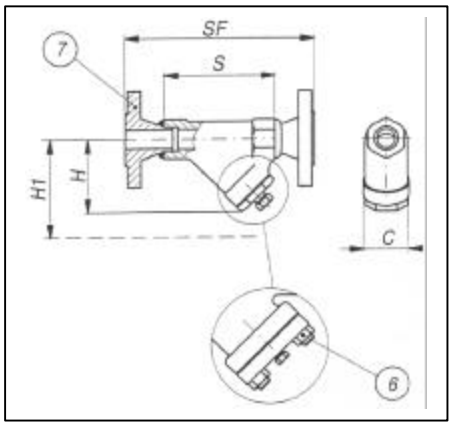


POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A105	
2	Screen	S.S.	
3	Plug	ASTM A105	
4	Gasket	316 / GRAPHITE	
5	Drain plug	ASTM A105	
6	Studs	ASTM A193 B7	
6	Nuts	ASTM A194 2H	
7	Flange	ASTM A105	

POS.6 (BOLTED COVER) : F800 2" ONLY
OTHER MATERIALS ON REQUEST

Flanged														
Size (inches)	DRAIN PLUG	S	H	H1	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
							SF	Kg	SF	Kg	SF	Kg	SF	Kg
3/8"	¼"	90	60	85	41	1	-	-	-	-	-	-	-	-
½"	¼"	90	60	85	41	1	150	2.6	165	2.3	165	2.8	165	3.2
¾"	¼"	110	75	100	46	1.2	170	4	191	3.2	191	4.3	191	4.7
1"	¼"	130	93	140	56	2	200	4.4	216	4.2	216	5.3	216	5.8
1½"	¼"	180	144	200	85	6	240	11	241	9.7	241	15	241	12.9
2"	½"	185	140	200	100	7	230	13	292	12	292	15	292	16.3

STANDARD PERFORATIONS 0.8mm
SPECIAL PERFORATIONS ON REQUEST
Dimension : S, H , H1 , C , SF are in millimeters (mm)



HOW TO SERVICE

Strainer maintenace should be made at least once year, or whenever the pressure drop is found to be in excess of the normal figures. A quick clean-up system, to made approximately once a mounth, is to blow-off small impurities trough the drain-plug (5). It is raccomanded to install a drain valve by a nipple to the drain hole to speed-up this operation. For a complete maintenance follow the points herebelow: ***-1-*** *Be sure that the main line has been shut-off.* ***-2-*** *Remove cover (3) and gasket (4).* ***-3-*** *Withdraw screen (2) an carefully inspect it for damages. If any hole in the screen is found abstructed, clean it with compressed air and / or any suitable tool. If the screen is broken in any part or out of shape, replace it with a new spare one.* ***Never reinstall a broken or distorted screen.*** ***-4-*** *Carefully clean the inside of the strainer body.* ***-5-*** *Fit a new gasket (4).* ***-6-*** *Install the new screen or the cleaned one (2). Be sure to center the screen in the upper seat.* ***-7-*** *Put in place cover (3). Be sure that drain plug (5) is closed.* ***-8-*** *Slowly give pressure to the line, checking for leakages.*
9- *Write on the strainer body the date of this maintenance operation.*

How to order: i.e. *F800 A105 /304 F 0.8 1" NPT*

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

OFFICIAL WEB SITE: www.douglas-italia.com

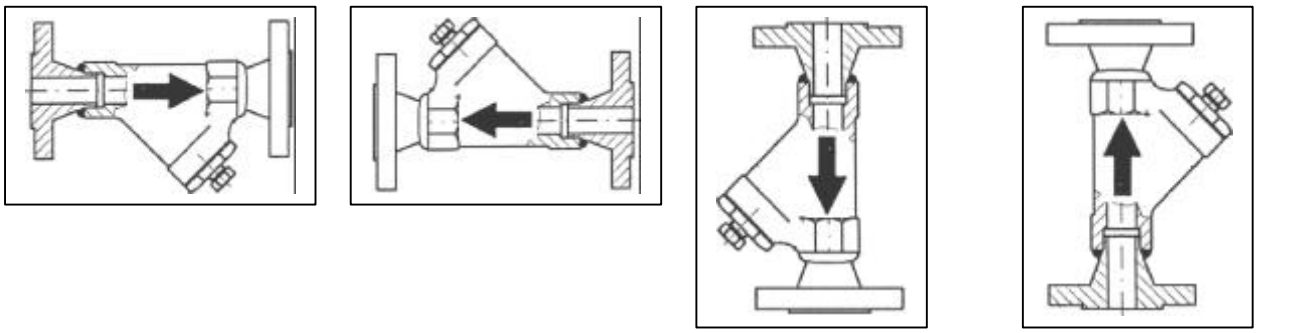
DOUGLAS ITALIA S.P.A.

FORGED STEEL " Y "
TYPE STRAINER DOUGLAS
F800 F316

STRAINERS

Designed to ANSI B16.34 the strainer bodies are produced with a superior wallthickness for corrosion allowance.
Standard stainers are equipped with screens for the average service of most mediums (steam, gas, air, oil, chemicals , ect.).
The large screen open area ensures an efficent filtering action with a low pressure drop.
Filtering area to inlet area ratio is larger than 3 to 1 .
Screens area manufactured with perforated plate in the materials and with the perforation specified in the relevant tables .
Screens with different peforation (or wire mesh) and materials may be manufactured on request.

INSTALLATION



1 CORRECT	2 INCORRECT	3 CORRECT	4 INCORRECT

- *All strainers should be mounted as close as possible to the valve or machinery which they are being installed to protect. It is important to ensure that the strainer installed with the flow following the same direction as the flow direction arrow cast onto the strainer body.*
- *For mounting in horizontal or inclined pipelines, ensure that the screen housing is always mounted below the pipeline.*
- *" Y " – strainers should never be installed in vertical pipelines in the upward flow condition. (see above)*

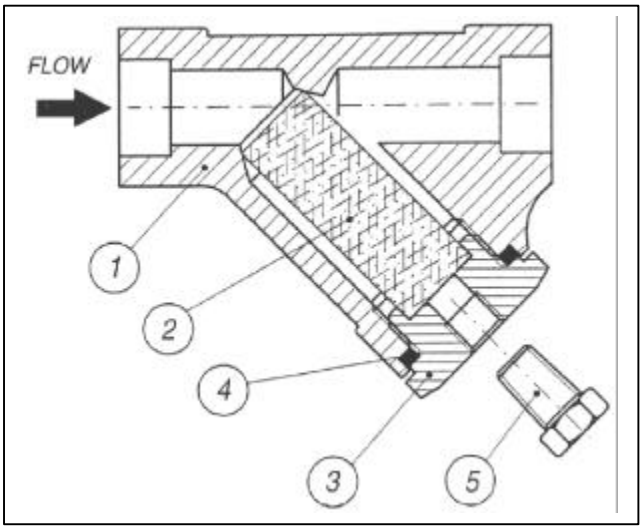
SIZES
3/8" – ½" – ¾" – 1" – 1½" – 2"

CONNECTIONS	
Screwed	ANSI B1.20.1 (NPT) / BS21 (BSP)
Buttweld	ANSI B16.25
Socket Welding	ANSI B16.11
Flanged	ANSI / UNI / DIN

LIMITING CONDITIONS (according to ISO 6552)
According to the body rating (ANSI B16.34)
F800 –ANSI 800
OTHER RATINGS ON REQUEST

FORGED STEEL " Y " TYPE STRAINER DOUGLAS

F800 F316

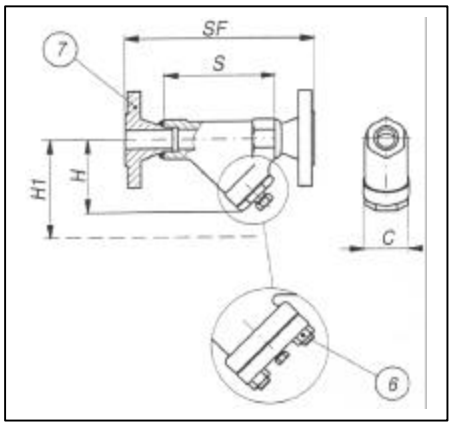


POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A182 F316	
2	Screen	S.S.	
3	Plug	AISI 316	
4	Gasket	316 / GRAPHITE	
5	Drain plug	ASTM A182 F316	
6	Studs	ASTM A193 B8	
6	Nuts	ASTM A194 2Gr.8	
7	Flange	ASTM A182 F316	

POS.6 (BOLTED COVER) : F800 2" ONLY
OTHER MATERIALS ON REQUEST

Flanged														
Size (inches)	DRAIN PLUG	S	H	H1	C	Weight (Kg)	UNI-DIN PN16-25-40		150#		300#		600#	
							SF	Kg	SF	Kg	SF	Kg	SF	Kg
3/8"	¼"	90	60	85	41	1	-	-	-	-	-	-	-	-
½"	¼"	90	60	85	41	1	150	2.6	165	2.3	165	2.8	165	3.2
¾"	¼"	110	75	100	46	1.2	170	4	191	3.2	191	4.3	191	4.7
1"	¼"	130	93	140	56	2	200	4.4	216	4.2	216	5.3	216	5.8
1½"	¼"	180	144	200	85	6	240	11	241	9.7	241	15	241	12.9
2"	½"	185	140	200	100	7	230	13	292	12	292	15	292	16.3

STANDARD PERFORATIONS 0.8mm
SPECIAL PERFORATIONS ON REQUEST
Dimension : S, H , H1 , C , SF are in millimeters (mm)



HOW TO SERVICE

Strainer maintenace should be made at least once year, or whenever the pressure drop is found to be in excess of the normal figures. A quick clean-up system, to made approximately once a mounth, is to blow-off small impurities trough the drain-plug (5). It is raccomanded to install a drain valve by a nipple to the drain hole to speed-up this operation. For a complete maintenance follow the points herebelow: ***-1-*** *Be sure that the main line has been shut-off.* ***-2-*** *Remove cover (3) and gasket (4).* ***-3-*** *Withdraw screen (2) an carefully inspect it for damages. If any hole in the screen is found abstructed, clean it with compressed air and / or any suitable tool. If the screen is broken in any part or out of shape, replace it with a new spare one.* ***Never reinstall a broken or distorted screen.*** ***-4-*** *Carefully clean the inside of the strainer body.* ***-5-*** *Fit a new gasket (4).* ***-6-*** *Install the new screen or the cleaned one (2). Be sure to center the screen in the upper seat.* ***-7-*** *Put in place cover (3). Be sure that drain plug (5) is closed.* ***-8-*** *Slowly give pressure to the line, checking for leakages.*
9- *Write on the strainer body the date of this maintenance operation.*

How to order: i.e. *F800 F316 / 316 F 0.8 1" NPT*

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

OFFICIAL WEB SITE: www.douglas-italia.com

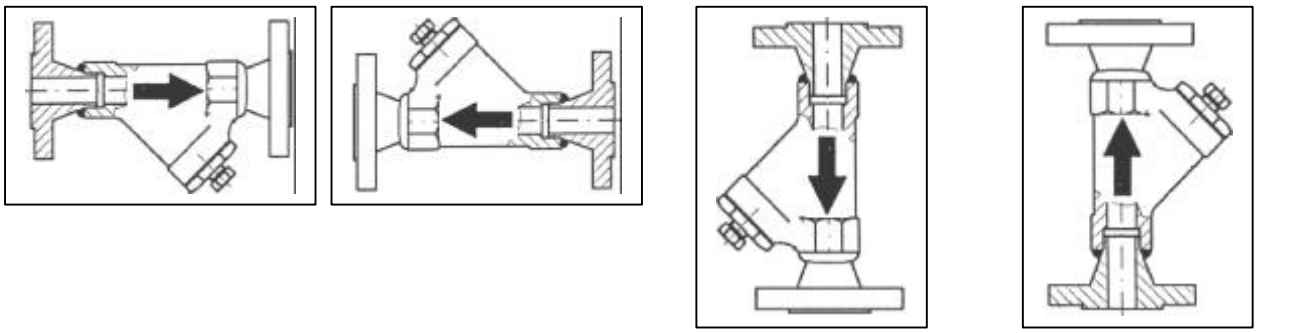
DOUGLAS ITALIA S.P.A.

FORGED STEEL " Y "
TYPE STRAINER DOUGLAS
F1500 A105

STRAINERS

Designed to ANSI B16.34 the strainer bodies are produced with a superior wallthickness for corrosion allowance.
Standard stainers are equipped with screens for the average service of most mediums (steam, gas, air, oil, chemicals , ect.).
The large screen open area ensures an efficent filtering action with a low pressure drop.
Filtering area to inlet area ratio is larger than 3 to 1 .
Screens area manufactured with perforated plate in the materials and with the perforation specified in the relevant tables .
Screens with different peforation (or wire mesh) and materials may be manufactured on request.

INSTALLATION



1 CORRECT	2 INCORRECT	3 CORRECT	4 INCORRECT

- *All strainers should be mounted as close as possible to the valve or machinery which they are being installed to protect. It is important to ensure that the strainer installed with the flow following the same direction as the flow direction arrow cast onto the strainer body.*
- *For mounting in horizontal or inclined pipelines, ensure that the screen housing is always mounted below the pipeline.*
- *" Y " – strainers should never be installed in vertical pipelines in the upward flow condition. (see above)*

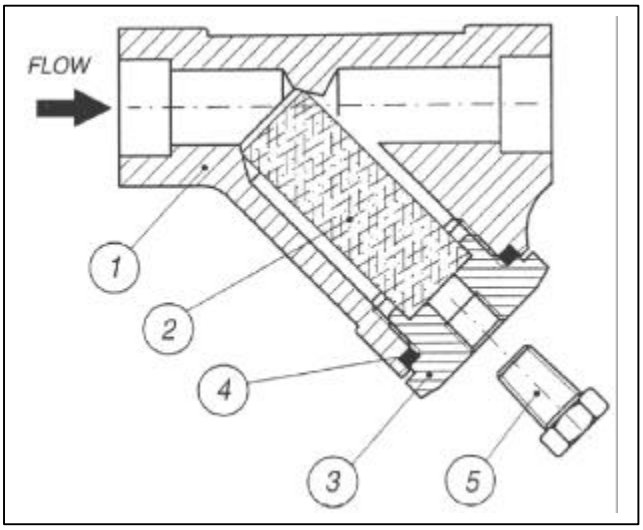
SIZES
3/8" – ½" – ¾" – 1" – 1½" – 2"

CONNECTIONS	
Screwed	ANSI B1.20.1 (NPT) / BS21 (BSP)
Buttweld	ANSI B16.25
Socket Welding	ANSI B16.11
Flanged	ANSI / UNI / DIN

LIMITING CONDITIONS (according to ISO 6552)
According to the body rating (ANSI B16.34)
F1500 –ANSI 1500
OTHER RATINGS ON REQUEST

FORGED STEEL " Y " TYPE STRAINER DOUGLAS

F1500 A105

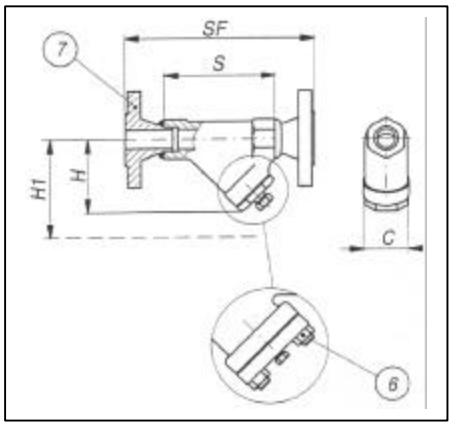


POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A105	
2	Screen	S.S.	
3	Plug	ASTM A105	
4	Gasket	316 / GRAPHITE	
5	Drain plug	ASTM A105	
6	Studs	ASTM A193 B7	
6	Nuts	ASTM A194 2H	
7	Flange	ASTM A105	

POS.6 (BOLTED COVER) : F1500 1½" ONLY
OTHER MATERIALS ON REQUEST

Flanged								
Size (inches)	DRAIN PLUG	S	H	H1	C	Weight (Kg)	1500# SF	1500# Kg
½"	¼"	110	75	100	46	1.4	216	5.5
¾"	¼"	130	93	140	56	2.2	229	7
1"	¼"	180	144	200	85	6.2	254	13
1½"	½"	185	140	200	100	7.5	305	19

STANDARD PERFORATIONS 0.8mm
SPECIAL PERFORATIONS ON REQUEST
Dimension : S, H , H1 , C , SF are in millimeters (mm)



HOW TO SERVICE

Strainer maintenace should be made at least once year, or whenever the pressure drop is found to be in excess of the normal figures. A quick clean-up system, to made approximately once a mounth, is to blow-off small impurities trough the drain-plug (5). It is raccomanded to install a drain valve by a nipple to the drain hole to speed-up this operation. For a complete maintenance follow the points herebelow: ***-1-*** *Be sure that the main line has been shut-off.* ***-2-*** *Remove cover (3) and gasket (4).* ***-3-*** *Withdraw screen (2) an carefully inspect it for damages. If any hole in the screen is found abstructed, clean it with compressed air and / or any suitable tool. If the screen is broken in any part or out of shape, replace it with a new spare one.* ***Never reinstall a broken or distorted screen.*** ***-4-*** *Carefully clean the inside of the strainer body.* ***-5-*** *Fit a new gasket (4).* ***-6-*** *Install the new screen or the cleaned one (2). Be sure to center the screen in the upper seat.* ***-7-*** *Put in place cover (3). Be sure that drain plug (5) is closed.* ***-8-*** *Slowly give pressure to the line, checking for leakages.*
9- *Write on the strainer body the date of this maintenance operation.*

How to order: i.e. *F1500 A105 /304 F 0.8 1" NPT*

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

OFFICIAL WEB SITE: www.douglas-italia.com

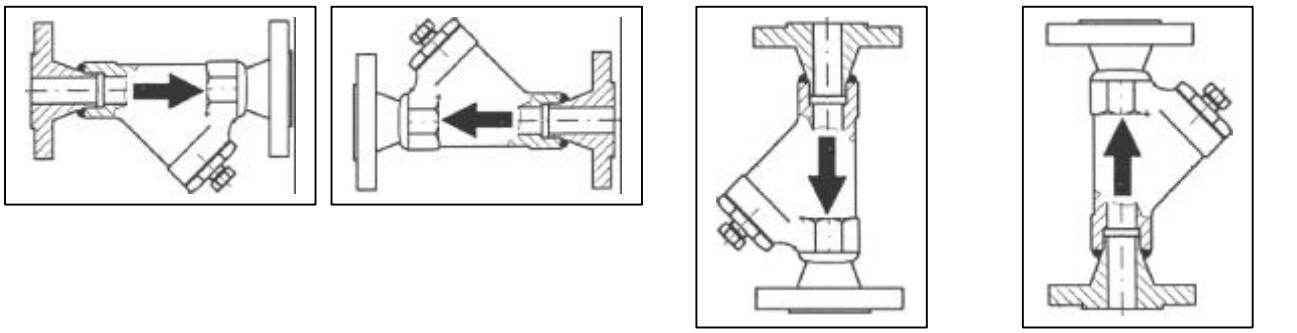
DOUGLAS ITALIA S.P.A.

FORGED STEEL " Y "
TYPE STRAINER DOUGLAS
F1500 F316

STRAINERS

Designed to ANSI B16.34 the strainer bodies are produced with a superior wallthickness for corrosion allowance.
Standard stainers are equipped with screens for the average service of most mediums (steam, gas, air, oil, chemicals , ect.).
The large screen open area ensures an efficent filtering action with a low pressure drop.
Filtering area to inlet area ratio is larger than 3 to 1 .
Screens area manufactured with perforated plate in the materials and with the perforation specified in the relevant tables .
Screens with different peforation (or wire mesh) and materials may be manufactured on request.

INSTALLATION



1 CORRECT	2 INCORRECT	3 CORRECT	4 INCORRECT

- *All strainers should be mounted as close as possible to the valve or machinery which they are being installed to protect. It is important to ensure that the strainer installed with the flow following the same direction as the flow direction arrow cast onto the strainer body.*
- *For mounting in horizontal or inclined pipelines, ensure that the screen housing is always mounted below the pipeline.*
- *" Y " – strainers should never be installed in vertical pipelines in the upward flow condition. (see above)*

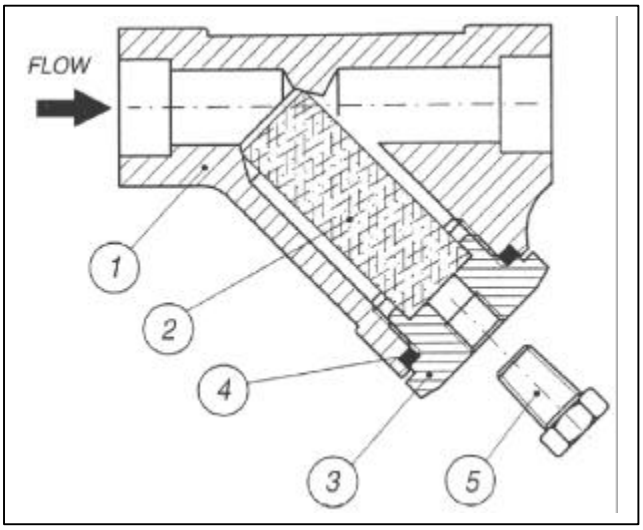
SIZES
3/8" – ½" – ¾" – 1" – 1½" – 2"

CONNECTIONS	
Screwed	ANSI B1.20.1 (NPT) / BS21 (BSP)
Buttweld	ANSI B16.25
Socket Welding	ANSI B16.11
Flanged	ANSI / UNI / DIN

LIMITING CONDITIONS (according to ISO 6552)
According to the body rating (ANSI B16.34)
F1500 –ANSI 1500
OTHER RATINGS ON REQUEST

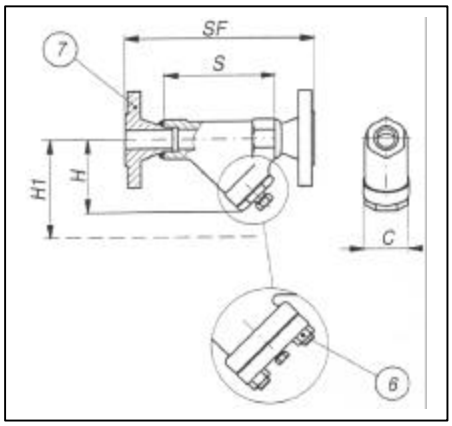
FORGED STEEL " Y " TYPE STRAINER DOUGLAS

F1500 F316



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A182 F316	
2	Screen	S.S.	
3	Plug	AISI 316	
4	Gasket	316 / GRAPHITE	
5	Drain plug	ASTM A182 F316	
6	Studs	ASTM A193 B8	
6	Nuts	ASTM A194 2Gr.8	
7	Flange	ASTM A182 F316	
POS.6 (BOLTED COVER) : F1500 1½" ONLY OTHER MATERIALS ON REQUEST			

Flanged								
Size (inches)	DRAIN PLUG	S	H	H1	C	Weight (Kg)	1500# SF	1500# Kg
½"	¼"	110	75	100	46	1.4	216	5.5
¾"	¼"	130	93	140	56	2.2	229	7
1"	¼"	180	144	200	85	6.2	254	13
1½"	½"	185	140	200	100	7.5	305	19
STANDARD PERFORATIONS 0.8mm SPECIAL PERFORATIONS ON REQUEST Dimension : S, H , H1 , C , SF are in millimeters (mm)								



HOW TO SERVICE

Strainer maintenace should be made at least once year, or whenever the pressure drop is found to be in excess of the normal figures. A quick clean-up system, to made approximately once a mounth, is to blow-off small impurities trough the drain-plug (5). It is raccomanded to install a drain valve by a nipple to the drain hole to speed-up this operation. For a complete maintenance follow the points herebelow: ***-1-*** *Be sure that the main line has been shut-off.* ***-2-*** *Remove cover (3) and gasket (4).* ***-3-*** *Withdraw screen (2) an carefully inspect it for damages. If any hole in the screen is found abstructed, clean it with compressed air and / or any suitable tool. If the screen is broken in any part or out of shape, replace it with a new spare one.* ***Never reinstall a broken or distorted screen.*** ***-4-*** *Carefully clean the inside of the strainer body.* ***-5-*** *Fit a new gasket (4).* ***-6-*** *Install the new screen or the cleaned one (2). Be sure to center the screen in the upper seat.* ***-7-*** *Put in place cover (3). Be sure that drain plug (5) is closed.* ***-8-*** *Slowly give pressure to the line, checking for leakages.*
9- *Write on the strainer body the date of this maintenance operation.*

How to order: i.e. *F1500 F316 / 316 F 0.8 1" NPT*

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA

" Y " CAST

- C 150 WCB
- C 150 CF8M
- C 300 WCB
- C 300 CF8M
- C 600 WCB
- C 600 CF8M
- C 900 WCB
- C 900 CF8M
- C 900 PS WCB
- C 900 PS CF8M
- C 1500 WCB
- C 1500 CF8M
- C 1500 PS WCB
- C 1500 PS CF8M

GO BACK

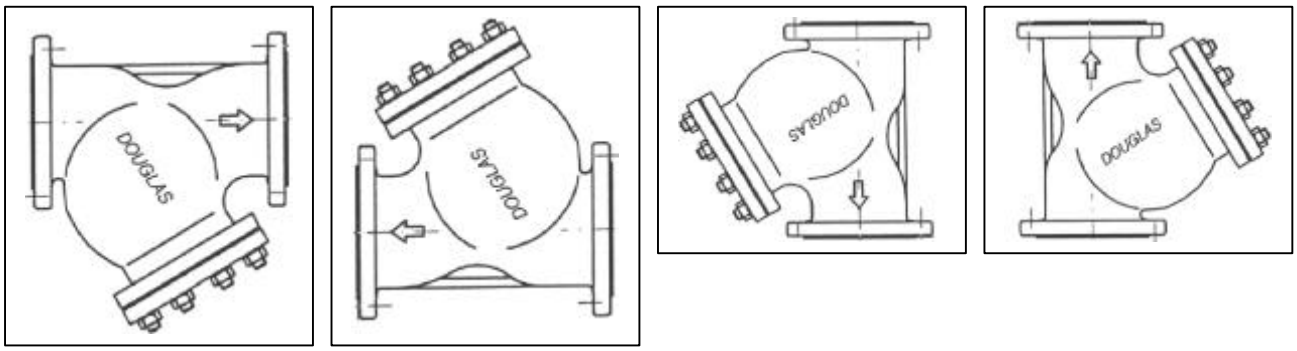
DOUGLAS ITALIA S.P.A.

CAST STEEL " Y "
TYPE STRAINERS DOUGLAS
C150 WCB

STRAINERS

Designed to ANSI B16.34 the strainer bodies are produced with a superior wallthickness for corrosion allowance.
Standard stainers are equipped with screens for the average service of most mediums (steam, gas, air, oil, chemicals , ect.).
The large screen open area ensures an efficent filtering action with a low pressure drop.
Filtering area to inlet area ratio is larger than 3 to 1 .
Screens area manufactured with perforated plate in the materials and with the perforation specified in the relevant tables .
Screens with different peforation (or wire mesh) and materials may be manufactured on request.

INSTALLATION



1 CORRECT	2 INCORRECT	3 CORRECT	4 INCORRECT

- *All strainers should be mounted as close as possible to the valve or machinery which they are being installed to protect. It is important to ensure that the strainer installed with the flow following the same direction as the flow direction arrow cast onto the strainer body.*
- *For mounting in horizontal or inclined pipelines, ensure that the screen housing is always mounted below the pipeline.*
- *" Y " – strainers should never be installed in vertical pipelines in the upward flow condition. (see above)*

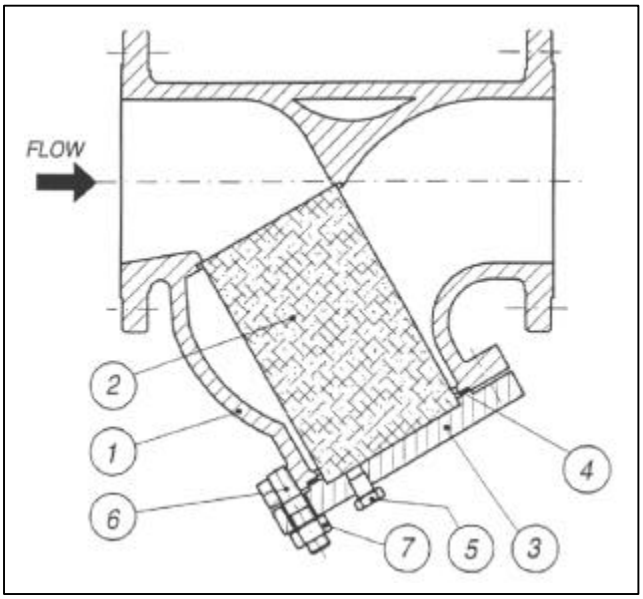
SIZES
2"–3"–4"–6"–8"–10"–12"–14"–16"–18"–20"–24"

CONNECTIONS	
Buttweld	*ANSI B16.25*
Flanged	*ANSI B 16.5*

LIMITING CONDITIONS (according to ISO 6552)
According to the body rating (ANSI B16.34)
C150 – ANSI 150
OTHER RATINGS ON REQUEST

CAST STEEL " Y " TYPE STRAINERS DOUGLAS

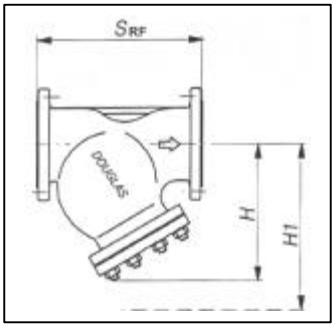
C150 WCB

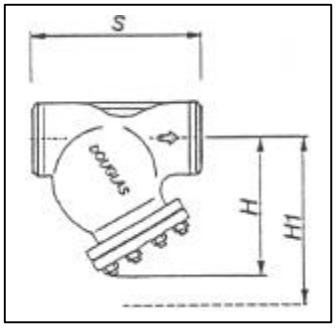


POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A216 WCB	
2	Screen	S.S. 304	X
3	Cover	ASTM A105	
4	Gasket	316 / GRAPHITE	X
5	Drain plug	ASTM A105	
6	Studs	ASTM A193 B7	
7	Nuts	ASTM A194 2H	
OTHER MATERIALS ON REQUEST			

Size (inches)	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
SRF	203	241	292	406	495	622	699	788	914	978	978	1295
S	203	241	292	406	495	622	699	788	914	978	978	1295
H	140	210	270	360	460	570	700	770	870	975	1095	1300
H1	190	260	340	400	580	660	800	1200	1400	1530	1750	2040
Kg	14	26	40	68	140	190	270	350	640	700	895	1370

STANDARD PERFORATIONS 1.5 mm
SPECIAL PERFORATIONS ON REQUEST . DRAIN PLUG SIZE ¾"
Dimension : SRF , S , H , H1 are in millimeters (mm)





HOW TO SERVICE

Strainer maintenace should be made at least once year, or whenever the pressure drop is found to be in excess of the normal figures. A quick clean-up system, to made approximately once a mounth, is to blow-off small impurities trough the drain-plug (5). It is raccomanded to install a drain valve by a nipple to the drain hole to speed-up this operation. For a complete maintenance follow the points herebelow: ***-1-*** *Be sure that the main line has been shut-off.* ***-2-*** *Untighten cover stud bolts (6) and nuts (7) and remove cover (3) and gasket (4).* ***-3-*** *Withdraw screen (2) an carefully inspect it for damages. If any hole in the screen is found abstructed, clean it with compressed air and / or any suitable tool. If the screen is broken in any part or out of shape, replace it with a new spare one.* ***Never reinstall a broken or distorted screen.*** ***-4-*** *Carefully clean the inside of the strainer body.* ***-5-*** *Fit a new gasket (4).* ***-6-*** *Install the new screen or the cleaned one (2). Be sure to center the screen in the upper seat.* ***-7-*** *Put in place cover (3). Be sure that drain plug (5) is closed.* ***-8-*** *Slowly give pressure to the line, checking for leakages.*
9- *Write on the strainer body the date of this maintenance operation.*

How to order: i.e. *C150 WCB / 304 F 1.5 2" 150 RF*

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

CAST STEEL " Y "
TYPE STRAINERS DOUGLAS
C150 CF8M

STRAINERS

Designed to ANSI B16.34 the strainer bodies are produced with a superior wallthickness for corrosion allowance.
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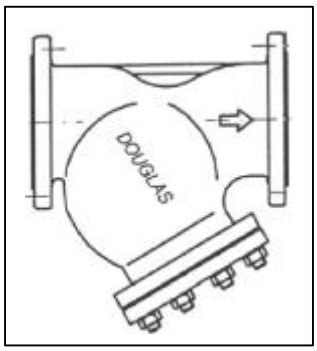
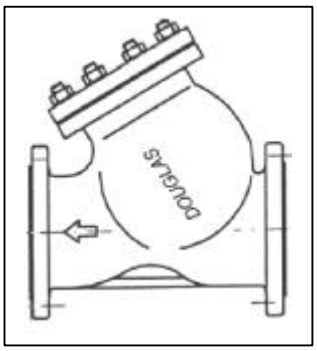
The large screen open area ensures an efficent filtering action with a low pressure drop.
Filtering area to inlet area ratio is larger than 3 to 1 .
Screens area manufactured with perforated plate in the materials and with the perforation specified in the relevant tables .
Screens with different peforation (or wire mesh) and materials may be manufactured on request.

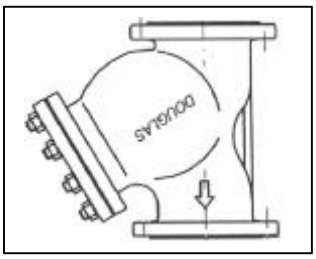
INSTALLATION



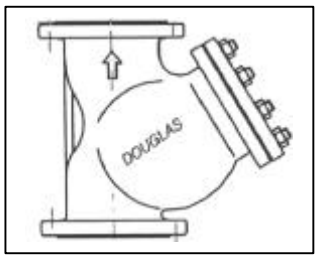
1 CORRECT



2 INCORRECT



3 CORRECT



4 INCORRECT

- *All strainers should be mounted as close as possible to the valve or machinery which they are being installed to protect. It is important to ensure that the strainer installed with the flow following the same direction as the flow direction arrow cast onto the strainer body.*
- *For mounting in horizontal or inclined pipelines, ensure that the screen housing is always mounted below the pipeline.*
- *" Y " – strainers should never be installed in vertical pipelines in the upward flow condition. (see above)*

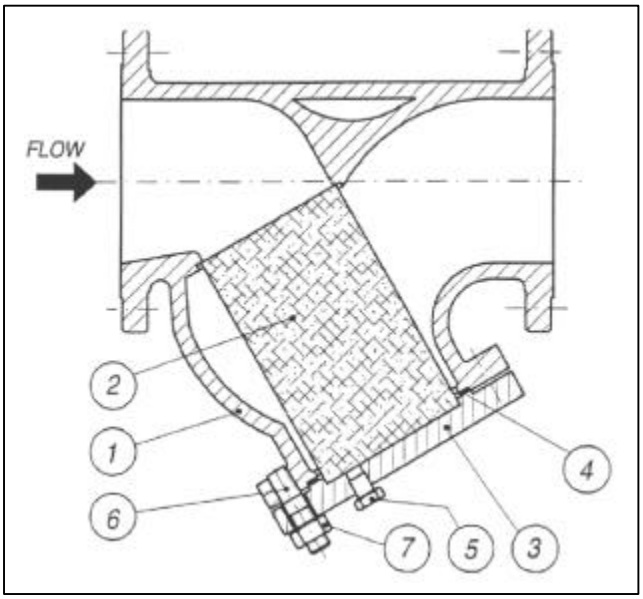
SIZES
2"–3"–4"–6"–8"–10"–12"–14"–16"–18"–20"–24"

CONNECTIONS	
Buttweld	*ANSI B16.25*
Flanged	*ANSI B 16.5*

LIMITING CONDITIONS (according to ISO 6552)
According to the body rating (ANSI B16.34)
C150 – ANSI 150
OTHER RATINGS ON REQUEST

CAST STEEL " Y " TYPE STRAINERS DOUGLAS

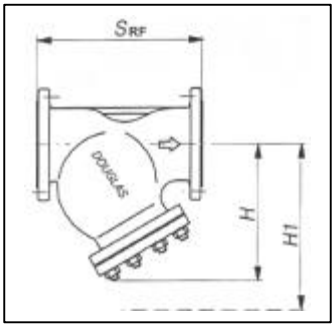
C150 CF8M

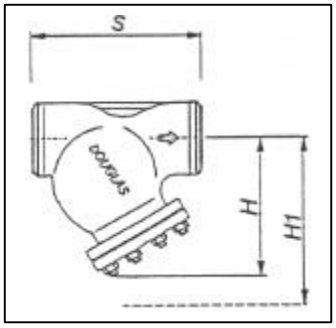


POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A351 CF8M	
2	Screen	S.S. 316	X
3	Cover	ASTM A240 316	
4	Gasket	316 / GRAPHITE	X
5	Drain plug	AISI 316	
6	Studs	ASTM A193 B8	
7	Nuts	ASTM A194 Gr.8	
OTHER MATERIALS ON REQUEST			

Size (inches)	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
SRF	203	241	292	406	495	622	699	788	914	978	978	1295
S	203	241	292	406	495	622	699	788	914	978	978	1295
H	140	210	270	360	460	570	700	770	870	975	1095	1300
H1	190	260	340	400	580	660	800	1200	1400	1530	1750	2040
Kg	14	26	40	68	140	190	270	350	640	700	895	1370

STANDARD PERFORATIONS 1.5 mm
SPECIAL PERFORATIONS ON REQUEST . DRAIN PLUG SIZE ¾"
Dimension : SRF , S , H , H1 are in millimeters (mm)





HOW TO SERVICE

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How to order: i.e. *C150 CF8M / 316 F 1.5 2" 150 RF*

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

CAST STEEL " Y "
TYPE STRAINERS DOUGLAS
C300 WCB

STRAINERS

Designed to ANSI B16.34 the strainer bodies are produced with a superior wallthickness for corrosion allowance.
Standard stainers are equipped with screens for the average service of most mediums (steam, gas, air, oil, chemicals , ect.).
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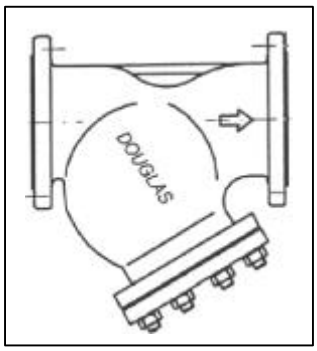
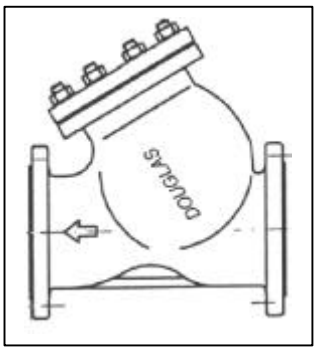
Filtering area to inlet area ratio is larger than 3 to 1 .
Screens area manufactured with perforated plate in the materials and with the perforation specified in the relevant tables .
Screens with different peforation (or wire mesh) and materials may be manufactured on request.

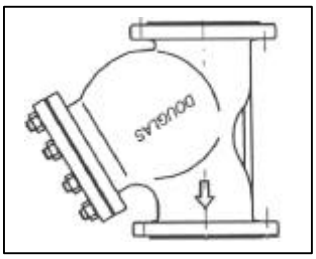
INSTALLATION



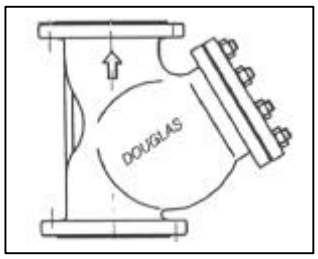
1 CORRECT



2 INCORRECT



3 CORRECT



4 INCORRECT

- *All strainers should be mounted as close as possible to the valve or machinery which they are being installed to protect. It is important to ensure that the strainer installed with the flow following the same direction as the flow direction arrow cast onto the strainer body.*
- *For mounting in horizontal or inclined pipelines, ensure that the screen housing is always mounted below the pipeline.*
- *" Y " – strainers should never be installed in vertical pipelines in the upward flow condition. (see above)*

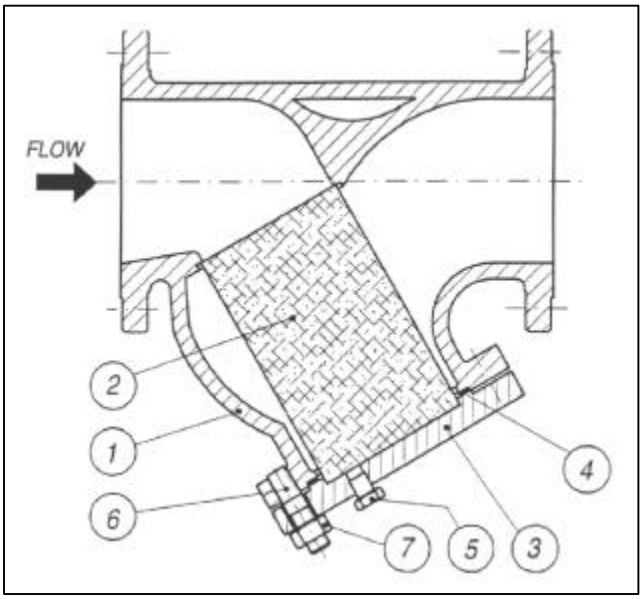
SIZES
2"–3"–4"–6"–8"–10"–12"–14"–16"–18"–20"–24"

CONNECTIONS	
Buttweld	*ANSI B16.25*
Flanged	*ANSI B 16.5*

LIMITING CONDITIONS (according to ISO 6552)
According to the body rating (ANSI B16.34)
C300 – ANSI 300
OTHER RATINGS ON REQUEST

CAST STEEL " Y " TYPE STRAINERS DOUGLAS

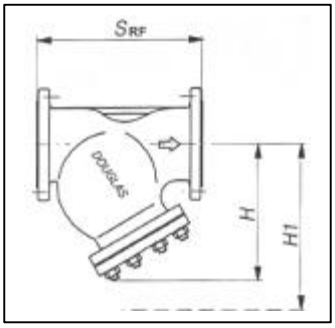
C300 WCB

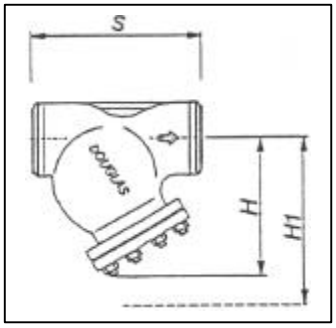


POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A216 WCB	
2	Screen	S.S. 304	X
3	Cover	ASTM A105	
4	Gasket	316 / GRAPHITE	X
5	Drain plug	ASTM A105	
6	Studs	ASTM A193 B7	
7	Nuts	ASTM A194 2H	
OTHER MATERIALS ON REQUEST			

Size (inches)	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
SRF	267	318	356	445	559	622	711	838	864	978	1016	1346
S	267	318	356	445	559	622	711	838	864	978	1016	1346
H	175	240	330	380	500	625	740	805	920	1025	1140	1360
H1	250	275	360	470	575	920	1100	1200	1360	1350	1700	2050
Kg	20	45	65	105	180	254	430	670	750	863	1125	1625

STANDARD PERFORATIONS 1.5 mm
SPECIAL PERFORATIONS ON REQUEST . DRAIN PLUG SIZE ¾"
Dimension : SRF , S , H , H1 are in millimeters (mm)





HOW TO SERVICE

Strainer maintenace should be made at least once year, or whenever the pressure drop is found to be in excess of the normal figures. A quick clean-up system, to made approximately once a mounth, is to blow-off small impurities trough the drain-plug (5). It is raccomanded to install a drain valve by a nipple to the drain hole to speed-up this operation. For a complete maintenance follow the points herebelow: ***-1-*** *Be sure that the main line has been shut-off.* ***-2-*** *Untighten cover stud bolts (6) and nuts (7) and remove cover (3) and gasket (4).* ***-3-*** *Withdraw screen (2) an carefully inspect it for damages. If any hole in the screen is found abstructed, clean it with compressed air and / or any suitable tool. If the screen is broken in any part or out of shape, replace it with a new spare one.* ***Never reinstall a broken or distorted screen.*** ***-4-*** *Carefully clean the inside of the strainer body.* ***-5-*** *Fit a new gasket (4).* ***-6-*** *Install the new screen or the cleaned one (2). Be sure to center the screen in the upper seat.* ***-7-*** *Put in place cover (3). Be sure that drain plug (5) is closed.* ***-8-*** *Slowly give pressure to the line, checking for leakages.*
9- *Write on the strainer body the date of this maintenance operation.*

How to order: i.e. *C300 WCB / 304 F 1.5 2" 300 RF*

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

OFFICIAL WEB SITE: www.douglas-italia.com

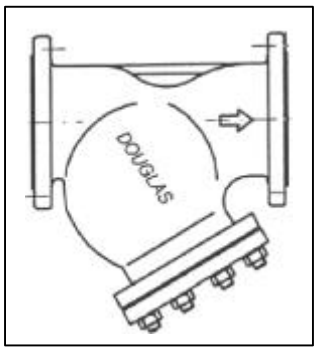
DOUGLAS ITALIA S.P.A.

CAST STEEL " Y "
TYPE STRAINERS DOUGLAS
C300 CF8M

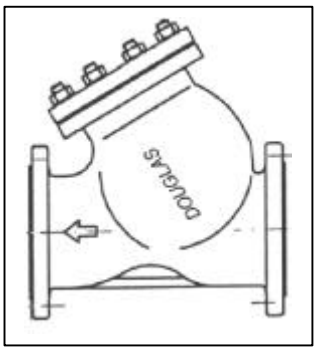
STRAINERS

Designed to ANSI B16.34 the strainer bodies are produced with a superior wallthickness for corrosion allowance.
Standard stainers are equipped with screens for the average service of most mediums (steam, gas, air, oil, chemicals , ect.).
The large screen open area ensures an efficent filtering action with a low pressure drop.
Filtering area to inlet area ratio is larger than 3 to 1 .
Screens area manufactured with perforated plate in the materials and with the perforation specified in the relevant tables .
Screens with different peforation (or wire mesh) and materials may be manufactured on request.

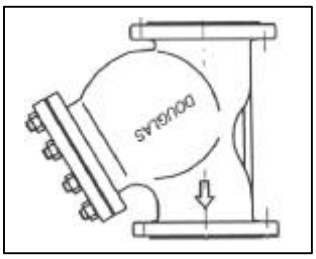
INSTALLATION



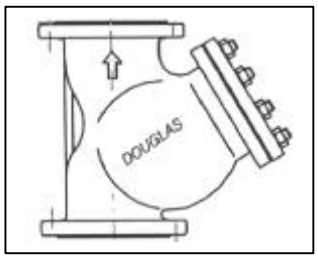
1 CORRECT



2 INCORRECT



3 CORRECT



4 INCORRECT

- *All strainers should be mounted as close as possible to the valve or machinery which they are being installed to protect. It is important to ensure that the strainer installed with the flow following the same direction as the flow direction arrow cast onto the strainer body.*
- *For mounting in horizontal or inclined pipelines, ensure that the screen housing is always mounted below the pipeline.*
- *" Y " – strainers should never be installed in vertical pipelines in the upward flow condition. (see above)*

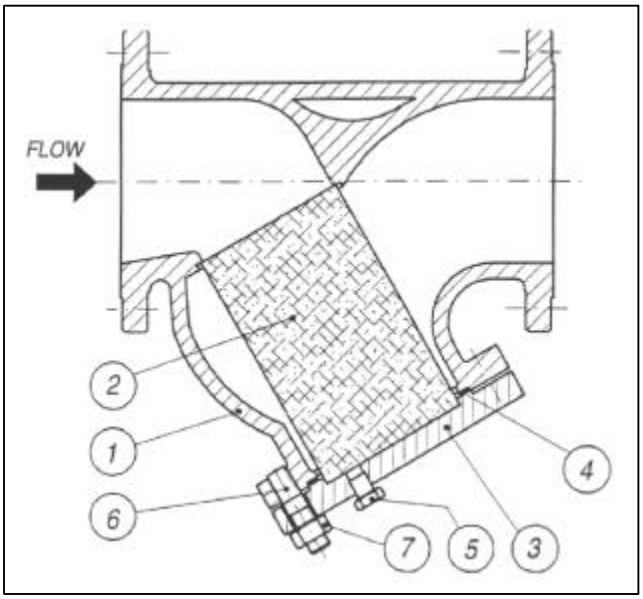
SIZES
2"–3"–4"–6"–8"–10"–12"–14"–16"–18"–20"–24"

CONNECTIONS	
Buttweld	*ANSI B16.25*
Flanged	*ANSI B 16.5*

LIMITING CONDITIONS (according to ISO 6552)
According to the body rating (ANSI B16.34)
C300 – ANSI 300
OTHER RATINGS ON REQUEST

CAST STEEL " Y " TYPE STRAINERS DOUGLAS

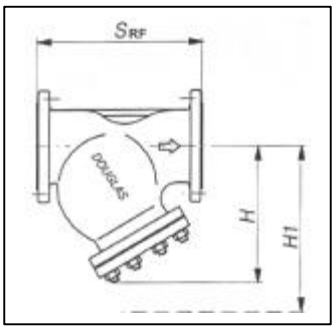
C300 CF8M

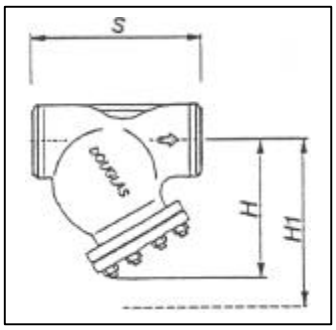


POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A351 CF8M	
2	Screen	S.S. 316	X
3	Cover	ASTM A240 316	
4	Gasket	316 / GRAPHITE	X
5	Drain plug	AISI 316	
6	Studs	ASTM A193 B8	
7	Nuts	ASTM A194 Gr.8	
OTHER MATERIALS ON REQUEST			

Size (inches)	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
SRF	267	318	356	445	559	622	711	838	864	978	1016	1346
S	267	318	356	445	559	622	711	838	864	978	1016	1346
H	175	240	330	380	500	625	740	805	920	1025	1140	1360
H1	250	275	360	470	575	920	1100	1200	1360	1350	1700	2050
Kg	20	45	65	105	180	254	430	670	750	863	1125	1625

STANDARD PERFORATIONS 1.5 mm
SPECIAL PERFORATIONS ON REQUEST . DRAIN PLUG SIZE ¾"
Dimension : SRF , S , H , H1 are in millimeters (mm)





HOW TO SERVICE

Strainer maintenace should be made at least once year, or whenever the pressure drop is found to be in excess of the normal figures. A quick clean-up system, to made approximately once a mounth, is to blow-off small impurities trough the drain-plug (5). It is raccomanded to install a drain valve by a nipple to the drain hole to speed-up this operation. For a complete maintenance follow the points herebelow: ***-1-*** *Be sure that the main line has been shut-off.* ***-2-*** *Untighten cover stud bolts (6) and nuts (7) and remove cover (3) and gasket (4).* ***-3-*** *Withdraw screen (2) an carefully inspect it for damages. If any hole in the screen is found abstructed, clean it with compressed air and / or any suitable tool. If the screen is broken in any part or out of shape, replace it with a new spare one.* ***Never reinstall a broken or distorted screen.*** ***-4-*** *Carefully clean the inside of the strainer body.* ***-5-*** *Fit a new gasket (4).* ***-6-*** *Install the new screen or the cleaned one (2). Be sure to center the screen in the upper seat.* ***-7-*** *Put in place cover (3). Be sure that drain plug (5) is closed.* ***-8-*** *Slowly give pressure to the line, checking for leakages.*
9- *Write on the strainer body the date of this maintenance operation.*

How to order: i.e. *C300 CF8M / 316 F 1.5 2" 300 RF*

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

OFFICIAL WEB SITE: www.douglas-italia.com

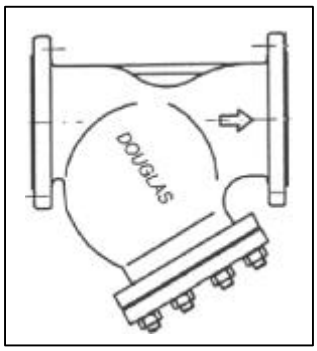
DOUGLAS ITALIA S.P.A.

CAST STEEL " Y "
TYPE STRAINERS DOUGLAS
C600 WCB

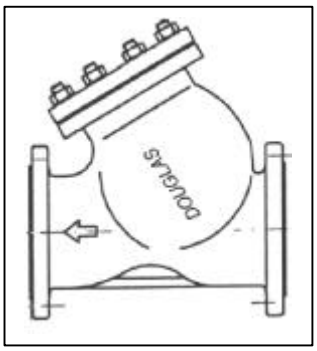
STRAINERS

Designed to ANSI B16.34 the strainer bodies are produced with a superior wallthickness for corrosion allowance.
Standard stainers are equipped with screens for the average service of most mediums (steam, gas, air, oil, chemicals , ect.).
The large screen open area ensures an efficent filtering action with a low pressure drop.
Filtering area to inlet area ratio is larger than 3 to 1 .
Screens area manufactured with perforated plate in the materials and with the perforation specified in the relevant tables .
Screens with different peforation (or wire mesh) and materials may be manufactured on request.

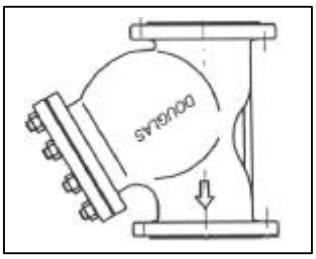
INSTALLATION



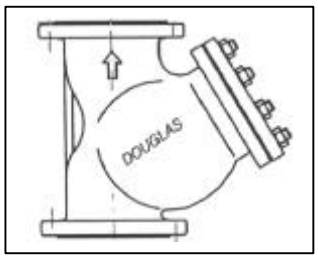
1 CORRECT



2 INCORRECT



3 CORRECT



4 INCORRECT

- *All strainers should be mounted as close as possible to the valve or machinery which they are being installed to protect. It is important to ensure that the strainer installed with the flow following the same direction as the flow direction arrow cast onto the strainer body.*
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- *" Y " – strainers should never be installed in vertical pipelines in the upward flow condition. (see above)*

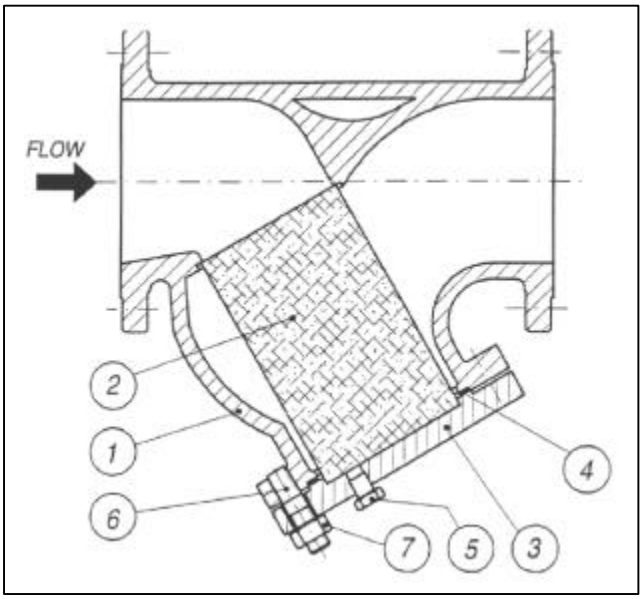
SIZES
2"–3"–4"–6"–8"–10"–12"–14"–16"

CONNECTIONS	
Buttweld	*ANSI B16.25*
Flanged	*ANSI B 16.5*

LIMITING CONDITIONS (according to ISO 6552)
According to the body rating (ANSI B16.34)
C600 – ANSI 600
OTHER RATINGS ON REQUEST

CAST STEEL " Y " TYPE STRAINERS DOUGLAS

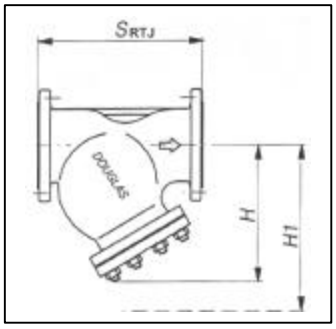
C600 WCB

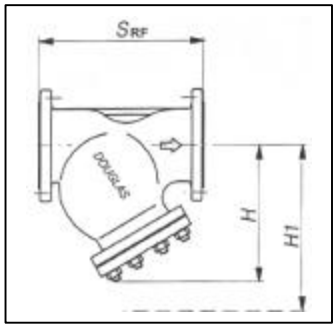


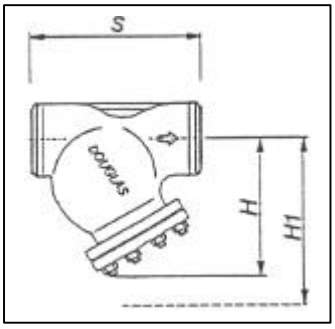
POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A216 WCB	
2	Screen	S.S. 304	X
3	Cover	ASTM A105	
4	Gasket	316 / GRAPHITE	X
5	Drain plug	ASTM A105	
6	Studs	ASTM A193 B7	
7	Nuts	ASTM A194 2H	
OTHER MATERIALS ON REQUEST			

Size (inches)	2"	3"	4"	6"	8"	10"	12"	14"	16"
SRTJ	295	259	435	562	663	790	841	892	994
SRF	292	356	432	559	660	787	838	889	991
S	292	356	432	559	660	787	838	889	991
H	193	260	310	400	500	600	720	865	1180
H1	270	320	400	530	650	790	1200	1420	1520
Kg	35	60	95	230	400	590	700	770	1140

STANDARD PERFORATIONS 1.5 mm
SPECIAL PERFORATIONS ON REQUEST . DRAIN PLUG SIZE ¾"
Dimension : SRF , S , H , H1 are in millimeters (mm)







HOW TO SERVICE

Strainer maintenace should be made at least once year, or whenever the pressure drop is found to be in excess of the normal figures. A quick clean-up system, to made approximately once a mounth, is to blow-off small impurities trough the drain-plug (5). It is raccomanded to install a drain valve by a nipple to the drain hole to speed-up this operation. For a complete maintenance follow the points herebelow: ***-1-*** *Be sure that the main line has been shut-off.* ***-2-*** *Untighten cover stud bolts (6) and nuts (7) and remove cover (3) and gasket (4).* ***-3-*** *Withdraw screen (2) an carefully inspect it for damages. If any hole in the screen is found abstructed, clean it with compressed air and / or any suitable tool. If the screen is broken in any part or out of shape, replace it with a new spare one.* ***Never reinstall a broken or distorted screen.*** ***-4-*** *Carefully clean the inside of the strainer body.* ***-5-*** *Fit a new gasket (4).* ***-6-*** *Install the new screen or the cleaned one (2). Be sure to center the screen in the upper seat.* ***-7-*** *Put in place cover (3). Be sure that drain plug (5) is closed.* ***-8-*** *Slowly give pressure to the line, checking for leakages.*
9- *Write on the strainer body the date of this maintenance operation.*

How to order: i.e. *C600 WCB / 304 F 1.5 2" 600 RTJ*

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

CAST STEEL " Y "
TYPE STRAINERS DOUGLAS
C600 CF8M

STRAINERS

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Screens area manufactured with perforated plate in the materials and with the perforation specified in the relevant tables .
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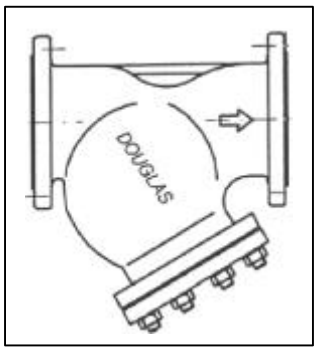
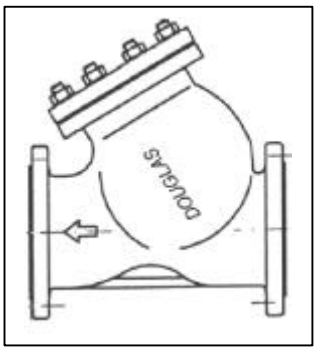
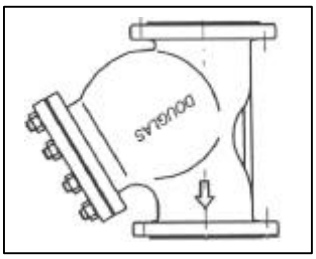
INSTALLATION



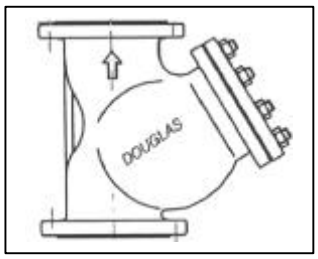
1 CORRECT



2 INCORRECT



3 CORRECT



4 INCORRECT

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- *For mounting in horizontal or inclined pipelines, ensure that the screen housing is always mounted below the pipeline.*
- *" Y " – strainers should never be installed in vertical pipelines in the upward flow condition. (see above)*

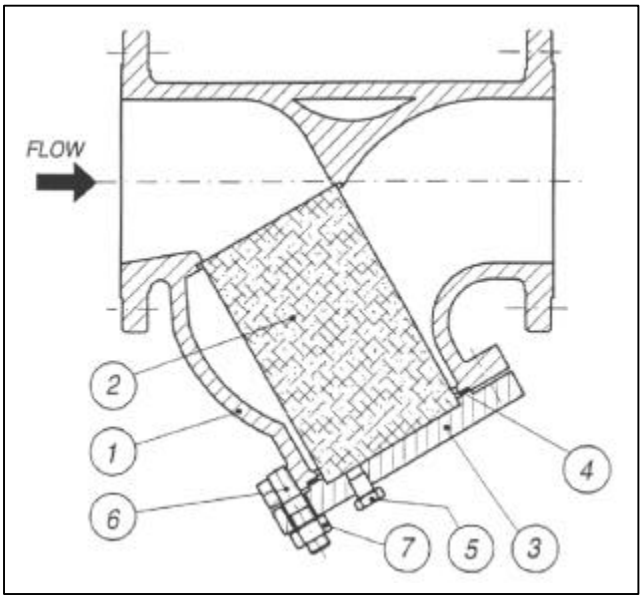
SIZES
2"–3"–4"–6"–8"–10"–12"–14"–16"

CONNECTIONS	
Buttweld	*ANSI B16.25*
Flanged	*ANSI B 16.5*

LIMITING CONDITIONS (according to ISO 6552)
According to the body rating (ANSI B16.34)
C600 – ANSI 600
OTHER RATINGS ON REQUEST

CAST STEEL " Y " TYPE STRAINERS DOUGLAS

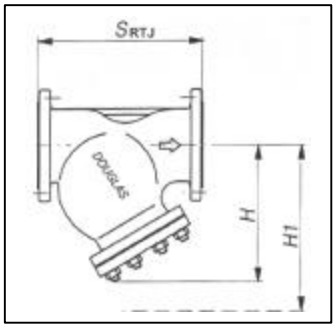
C600 CF8M

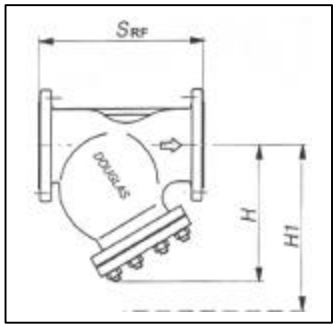


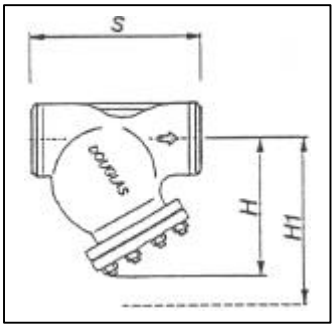
POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A351 CF8M	
2	Screen	S.S. 316	X
3	Cover	ASTM A240 316	
4	Gasket	316 / GRAPHITE	X
5	Drain plug	AISI 316	
6	Studs	ASTM A193 B8	
7	Nuts	ASTM A194 Gr.8	
OTHER MATERIALS ON REQUEST			

Size (inches)	2"	3"	4"	6"	8"	10"	12"	14"	16"
SRTJ	295	259	435	562	663	790	841	892	994
SRF	292	356	432	559	660	787	838	889	991
S	292	356	432	559	660	787	838	889	991
H	193	260	310	400	500	600	720	865	1180
H1	270	320	400	530	650	790	1200	1420	1520
Kg	35	60	95	230	400	590	700	770	1140

STANDARD PERFORATIONS 1.5 mm
SPECIAL PERFORATIONS ON REQUEST . DRAIN PLUG SIZE ¾"
Dimension : SRF , S , H , H1 are in millimeters (mm)







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9- *Write on the strainer body the date of this maintenance operation.*

How to order: i.e. *C600 CF8M / 316 F 1.5 2" 600 RF*

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

CAST STEEL " Y "
TYPE STRAINERS DOUGLAS
C900 WCB

STRAINERS

Designed to ANSI B16.34 the strainer bodies are produced with a superior wallthickness for corrosion allowance.
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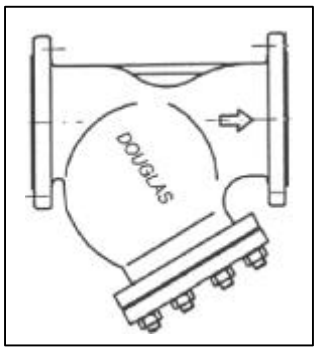
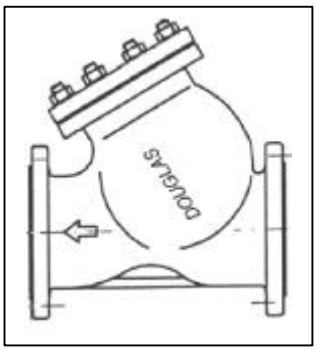
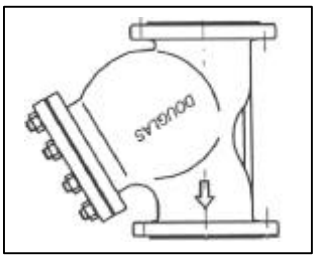
INSTALLATION



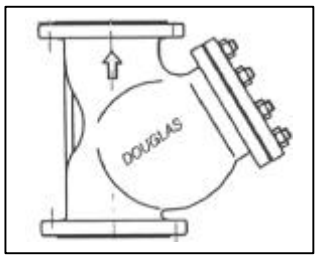
1 CORRECT



2 INCORRECT



3 CORRECT



4 INCORRECT

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- *For mounting in horizontal or inclined pipelines, ensure that the screen housing is always mounted below the pipeline.*
- *" Y " – strainers should never be installed in vertical pipelines in the upward flow condition. (see above)*

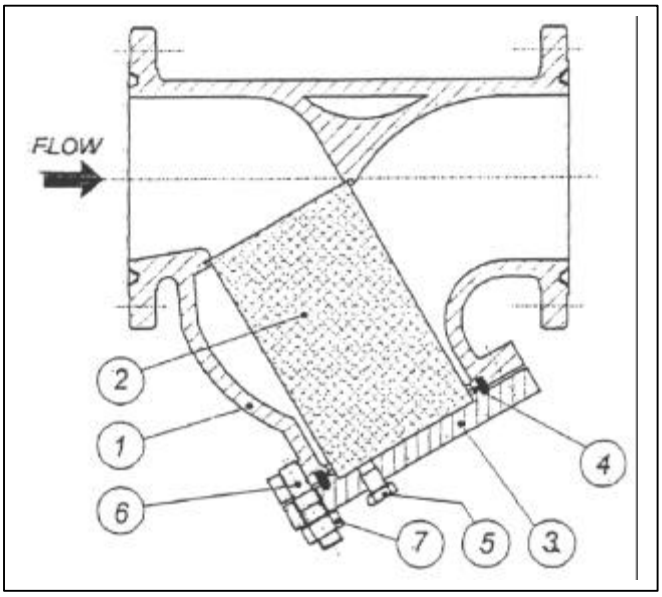
SIZES
2"–3"–4"–6"–8"–10"–12"

CONNECTIONS	
Buttweld	*ANSI B16.25*
Flanged	*ANSI B 16.5*

LIMITING CONDITIONS (according to ISO 6552)
According to the body rating (ANSI B16.34)
C900 – ANSI 900
OTHER RATINGS ON REQUEST

CAST STEEL " Y " TYPE STRAINERS DOUGLAS

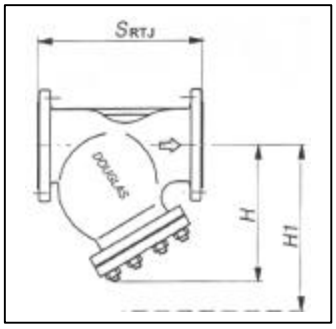
C900 WCB

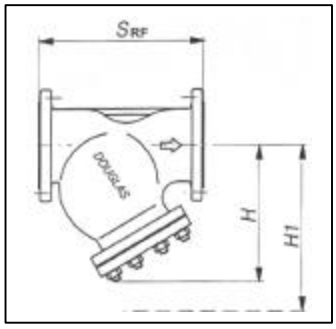


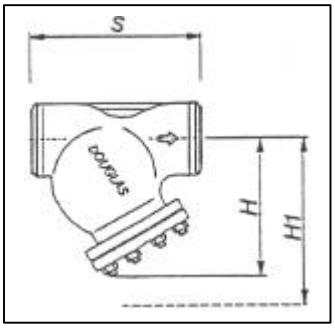
POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A216 WCB	
2	Screen	S.S. 304	X
3	Cover	ASTM A105	
4	Gasket RJ	ARMCO	X
5	Drain plug	ASTM A105	
6	Studs	ASTM A193 B7	
7	Nuts	ASTM A194 2H	
OTHER MATERIALS ON REQUEST			

Size (inches)	2"	3"	4"	6"	8"	10"	12"
SRTJ	371	384	460	613	740	841	968
SRF	368	381	457	610	737	838	965
S	368	381	457	610	737	838	965
H	250	295	375	555	665	650	650
H1	400	320	435	630	780	890	976
Kg	55	83	155	261	600	1494	1750

STANDARD PERFORATIONS 1.5 mm
SPECIAL PERFORATIONS ON REQUEST. DRAIN PLUG SIZE ¾"
Dimension : SRF , S , H , H1 are in millimeters (mm)







HOW TO SERVICE

Strainer maintenace should be made at least once year, or whenever the pressure drop is found to be in excess of the normal figures. A quick clean-up system, to made approximately once a mounth, is to blow-off small impurities trough the drain-plug (5). It is raccomanded to install a drain valve by a nipple to the drain hole to speed-up this operation. For a complete maintenance follow the points herebelow: ***-1-*** *Be sure that the main line has been shut-off.* ***-2-*** *Untighten cover stud bolts (6) and nuts (7) and remove cover (3) and gasket (4).* ***-3-*** *Withdraw screen (2) an carefully inspect it for damages. If any hole in the screen is found abstructed, clean it with compressed air and / or any suitable tool. If the screen is broken in any part or out of shape, replace it with a new spare one.* ***Never reinstall a broken or distorted screen.*** ***-4-*** *Carefully clean the inside of the strainer body.* ***-5-*** *Fit a new gasket (4).* ***-6-*** *Install the new screen or the cleaned one (2). Be sure to center the screen in the upper seat.* ***-7-*** *Put in place cover (3). Be sure that drain plug (5) is closed.* ***-8-*** *Slowly give pressure to the line, checking for leakages.*
9- *Write on the strainer body the date of this maintenance operation.*

How to order: i.e. *C900 WCB / 304 F 1.5 2" 900 RTJ*

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

OFFICIAL WEB SITE: www.douglas-italia.com

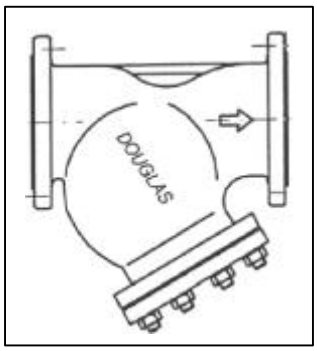
DOUGLAS ITALIA S.P.A.

CAST STEEL " Y "
TYPE STRAINERS DOUGLAS
C900 CF8M

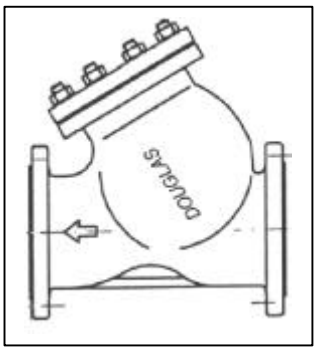
STRAINERS

Designed to ANSI B16.34 the strainer bodies are produced with a superior wallthickness for corrosion allowance.
Standard stainers are equipped with screens for the average service of most mediums (steam, gas, air, oil, chemicals , ect.).
The large screen open area ensures an efficent filtering action with a low pressure drop.
Filtering area to inlet area ratio is larger than 3 to 1 .
Screens area manufactured with perforated plate in the materials and with the perforation specified in the relevant tables .
Screens with different peforation (or wire mesh) and materials may be manufactured on request.

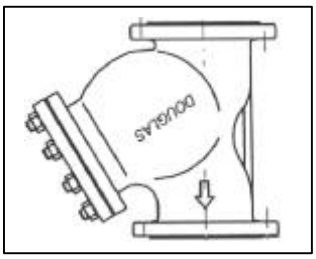
INSTALLATION



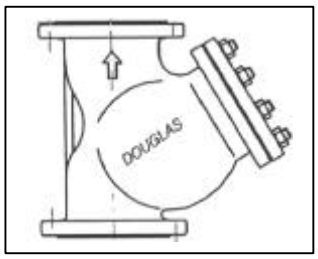
1 CORRECT



2 INCORRECT



3 CORRECT



4 INCORRECT

- *All strainers should be mounted as close as possible to the valve or machinery which they are being installed to protect. It is important to ensure that the strainer installed with the flow following the same direction as the flow direction arrow cast onto the strainer body.*
- *For mounting in horizontal or inclined pipelines, ensure that the screen housing is always mounted below the pipeline.*
- *" Y " – strainers should never be installed in vertical pipelines in the upward flow condition. (see above)*

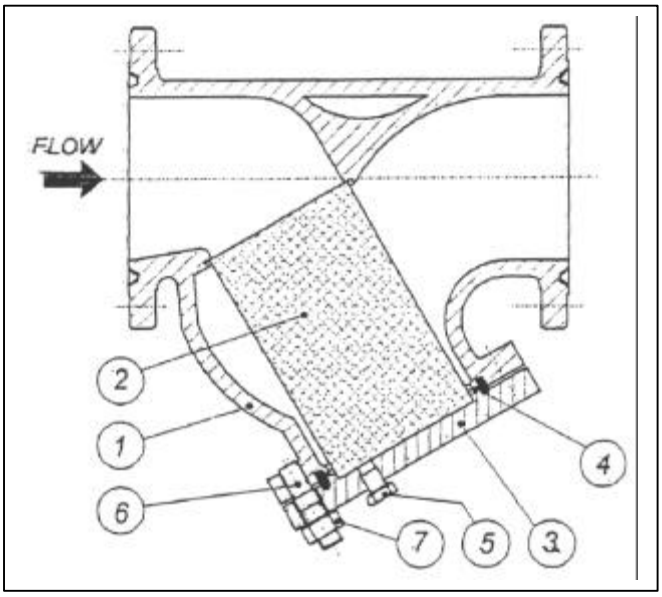
SIZES
2"–3"–4"–6"–8"–10"–12"

CONNECTIONS	
Buttweld	*ANSI B16.25*
Flanged	*ANSI B 16.5*

LIMITING CONDITIONS (according to ISO 6552)
According to the body rating (ANSI B16.34)
C900 – ANSI 900
OTHER RATINGS ON REQUEST

CAST STEEL " Y " TYPE STRAINERS DOUGLAS

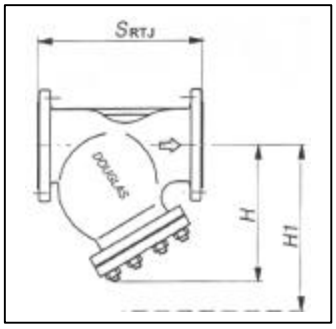
C900 CF8M

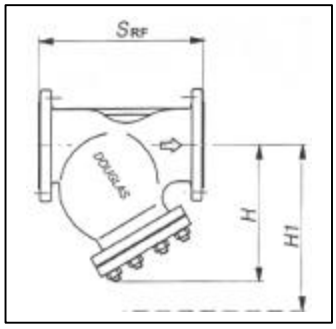


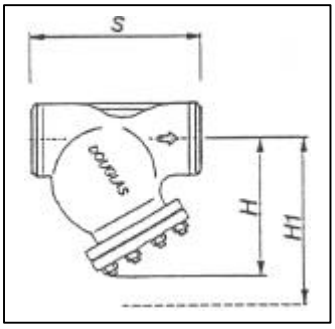
POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A351 CF8M	
2	Screen	S.S. 316	X
3	Cover	ASTM A240 316	
4	Gasket RJ	F316	X
5	Drain plug	AISI 316	
6	Studs	ASTM A193 B8	
7	Nuts	ASTM A194 Gr.8	
OTHER MATERIALS ON REQUEST			

Size (inches)	2"	3"	4"	6"	8"	10"	12"
SRTJ	371	384	460	613	740	841	968
SRF	368	381	457	610	737	838	965
S	368	381	457	610	737	838	965
H	250	295	375	555	665	650	650
H1	400	320	435	630	780	890	976
Kg	55	83	155	261	600	1494	1750

STANDARD PERFORATIONS 1.5 mm
SPECIAL PERFORATIONS ON REQUEST. DRAIN PLUG SIZE ¾"
Dimension : SRF , S , H , H1 are in millimeters (mm)







HOW TO SERVICE

Strainer maintenace should be made at least once year, or whenever the pressure drop is found to be in excess of the normal figures. A quick clean-up system, to made approximately once a mounth, is to blow-off small impurities trough the drain-plug (5). It is raccomanded to install a drain valve by a nipple to the drain hole to speed-up this operation. For a complete maintenance follow the points herebelow: ***-1-*** *Be sure that the main line has been shut-off.* ***-2-*** *Untighten cover stud bolts (6) and nuts (7) and remove cover (3) and gasket (4).* ***-3-*** *Withdraw screen (2) an carefully inspect it for damages. If any hole in the screen is found abstructed, clean it with compressed air and / or any suitable tool. If the screen is broken in any part or out of shape, replace it with a new spare one.* ***Never reinstall a broken or distorted screen.*** ***-4-*** *Carefully clean the inside of the strainer body.* ***-5-*** *Fit a new gasket (4).* ***-6-*** *Install the new screen or the cleaned one (2). Be sure to center the screen in the upper seat.* ***-7-*** *Put in place cover (3). Be sure that drain plug (5) is closed.* ***-8-*** *Slowly give pressure to the line, checking for leakages.*
9- *Write on the strainer body the date of this maintenance operation.*

How to order: i.e. *C900 CF8M / 316 F 1.5 2" 900 RTJ*

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OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

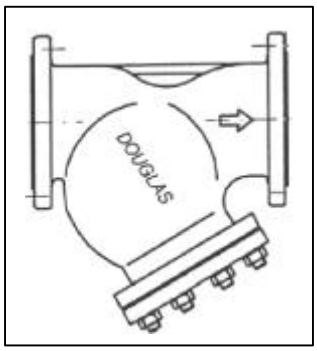
CAST STEEL " Y "TYPE PRESSURE SEAL STRAINERS

C900 WCB

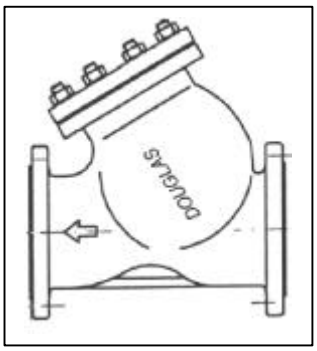
STRAINERS

Designed to ANSI B16.34 the strainer bodies are produced with a superior wallthickness for corrosion allowance.
Standard stainers are equipped with screens for the average service of most mediums (steam, gas, air, oil, chemicals , ect.).
The large screen open area ensures an efficent filtering action with a low pressure drop.
Filtering area to inlet area ratio is larger than 3 to 1 .
Screens area manufactured with perforated plate in the materials and with the perforation specified in the relevant tables .
Screens with different peforation (or wire mesh) and materials may be manufactured on request.

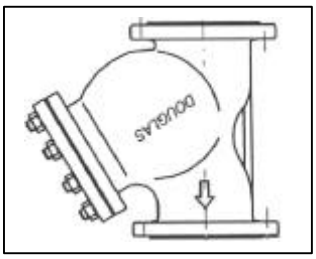
INSTALLATION



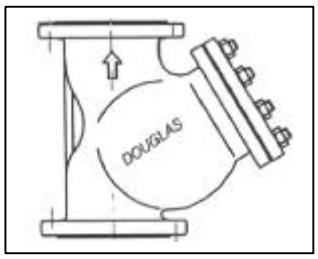
1 CORRECT



2 INCORRECT



3 CORRECT



4 INCORRECT

- *All strainers should be mounted as close as possible to the valve or machinery which they are being installed to protect. It is important to ensure that the strainer installed with the flow following the same direction as the flow direction arrow cast onto the strainer body.*
- *For mounting in horizontal or inclined pipelines, ensure that the screen housing is always mounted below the pipeline.*
- *" Y " – strainers should never be installed in vertical pipelines in the upward flow condition. (see above)*

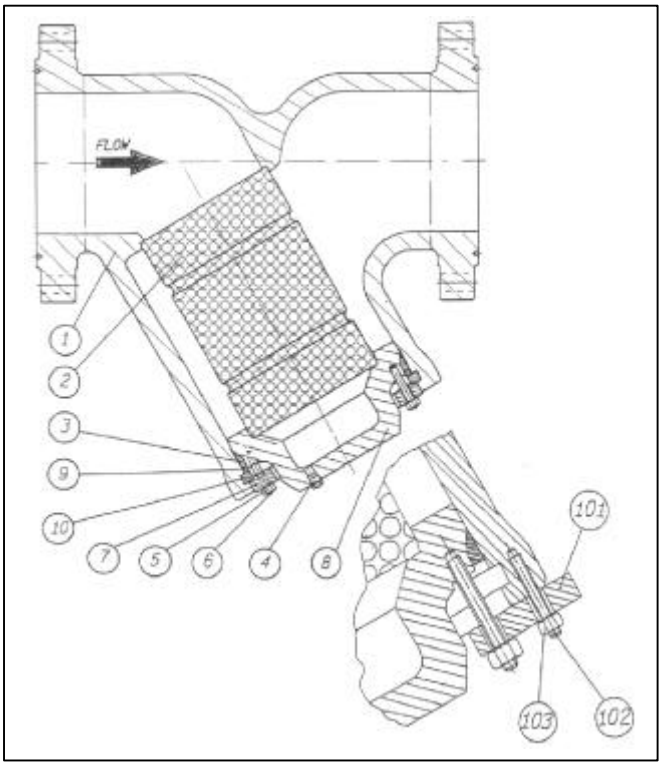
SIZES
16"

CONNECTIONS	
Buttweld	ANSI B16.25
Flanged	ANSI B 16.5

LIMITING CONDITIONS (according to ISO 6552)
According to the body rating (ANSI B16.34)
C900 – ANSI 900
OTHER RATINGS ON REQUEST

CAST STEEL " Y " TYPE PRESSURE SEAL STRAINERS

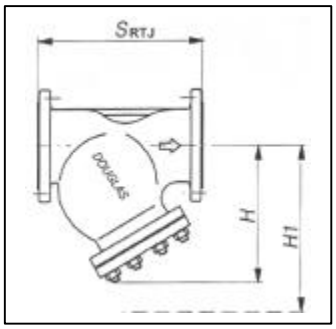
C900 WCB

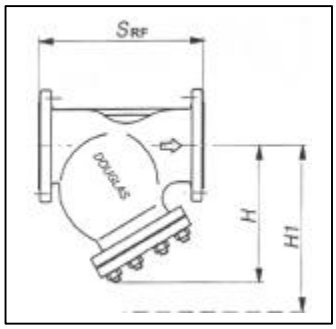


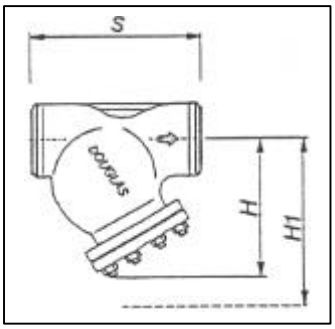
POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A216 WCB	
2	Screen	S.S. 304	X
3	Gasket	S.S. 304	X
4	Drain plug	A105	
5	Nuts	ASTM A194 2H	
6	Studs	ASTM A193 B7	
7	Sleeve	ASTM A105	
8	Cover	ASTM A105	
9	Ring	ASTM A182 F6	
10	Retain ring	ASTM A182 F6	
OTHER MATERIALS ON REQUEST			

Size (inches)	16"
SRTJ	1140
SRF	1092
S	1092
H	865
H1	1340
Kg	-

STANDARD PERFORATIONS 1.5 mm
SPECIAL PERFORATIONS ON REQUEST. DRAIN PLUG SIZE ¾"
Dimension : SRF , S , H , H1 are in millimeters (mm)







HOW TO SERVICE

Strainer maintenace should be made at least once year, or whenever the pressure drop is found to be in excess of the normal figures. A quick clean-up system, to made approximately once a mounth, is to blow-off small impurities trough the drain-plug on cover (4). This operation is faster if a drain valve is installed. For a complete maintenance follow the points herebelow: ***-1-*** *Be sure that the main line has been shut-off.* ***-2-*** *Untighten nuts (5) remove sleeve (7) and studs (6).* ***-3-*** *Remove retain ring (10)* ***-4-*** *Reinstall the studs (6) to the cover and install studs (102) into threaded holes drilled on the screen casing end. Install four shims (101) with nuts (5 and 103) as per enclosed drawing.* ***-5-*** *Tighten the nuts (5) driving the cover (8) against the shims (101). This will also extract the gasket (3) from its seat and them until the gasket (3) is complety extracted from its seat and the cover (8) can be withdraw from the body.* ***-6-*** *Withdraw screen (2) and carefully inspect it for demages. If any hole in the screen is found obstructed, clean it with compressed air and/or any suitable tool. If the screen is broken in any part or out of shape, replace it with a new spare one.* ***Never reinstall a broken or distorted screen.*** ***-7-*** *Carefully clean the inside of the strainer body.* ***-8-*** *Install the new screen or the old cleaned one (2). Be sure the center the screen in the upper seat.* ***-9-*** *Install the cover (8) without the studs (6) making sure the screen (2) fits correctly in the cover seat. Check that the cover (8) is fully inserted in the body to allow the installation of the retain ring (10).* ***-10-*** *Install a new gasket (3) and the spacer ring (9).* ***-11-*** *Install retaing ring (10) in their recess in the body,making sure that the holes are visible.* ***-12-*** *Place the sleeve (7) in contact with its seat on the body (1).* ***-13-*** *Slowly cross-tighten the nuts (5) taking care that the cover (8) is kept in axis with the body. This is easily checked watching the gap between the sleeve (7) hole and cover's (8) hub.* ***-14-*** *Slowly give pressure to the line, checking for leakages.* ***-15-*** *Write on the strainer body or tag the date of this maintenance operation.*

How to order: i.e. *C900 WCB / 304 F 1.5 16" 900 RTJ*

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DOUGLAS ITALIA S.P.A.

CAST STEEL " Y "TYPE PRESSURE SEAL STRAINERS

C900 CF8M

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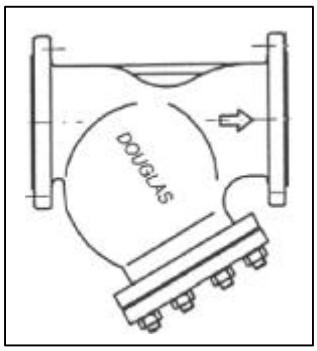
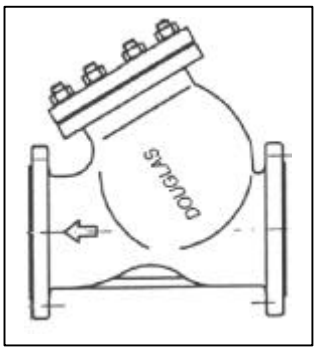
Filtering area to inlet area ratio is larger than 3 to 1 .
Screens area manufactured with perforated plate in the materials and with the perforation specified in the relevant tables .
Screens with different peforation (or wire mesh) and materials may be manufactured on request.

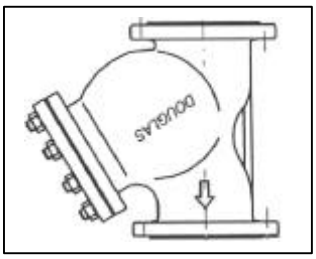
INSTALLATION



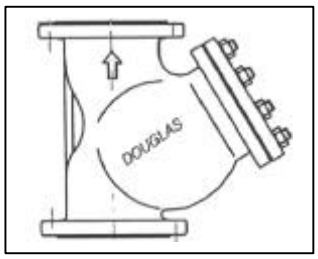
1 CORRECT



2 INCORRECT



3 CORRECT



4 INCORRECT

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- *For mounting in horizontal or inclined pipelines, ensure that the screen housing is always mounted below the pipeline.*
- *" Y " – strainers should never be installed in vertical pipelines in the upward flow condition. (see above)*

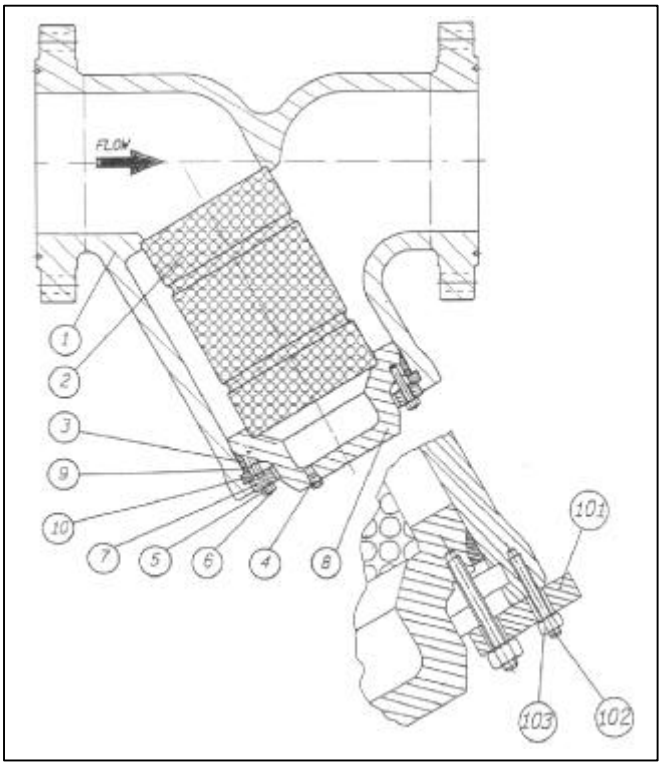
SIZES
16"

CONNECTIONS	
Buttweld	ANSI B16.25
Flanged	ANSI B 16.5

LIMITING CONDITIONS (according to ISO 6552)
According to the body rating (ANSI B16.34)
C900 – ANSI 900
OTHER RATINGS ON REQUEST

CAST STEEL " Y " TYPE PRESSURE SEAL STRAINERS

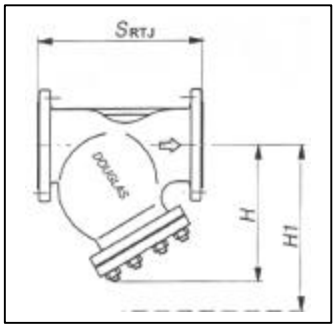
C900 CF8M

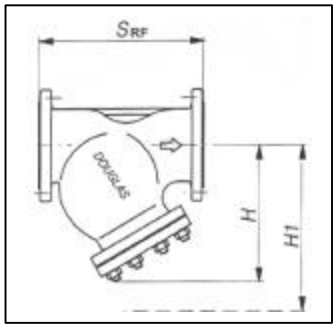


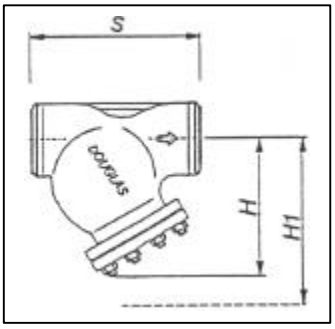
POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A351 CF8M	
2	Screen	S.S. 316	X
3	Gasket	A182 F316	X
4	Drain plug	S.S. 316	
5	Nuts	A194 Gr.8	
6	Studs	A193 B8	
7	Sleeve	A182 F316	
8	Cover	A182 F316	
9	Ring	A182 F6	
10	Retain ring	A182 F6	
OTHER MATERIALS ON REQUEST			

Size (inches)	16"
SRTJ	1140
SRF	1092
S	1092
H	865
H1	1340
Kg	-

STANDARD PERFORATIONS 1.5 mm
SPECIAL PERFORATIONS ON REQUEST. DRAIN PLUG SIZE ¾"
Dimension : SRF , S , H , H1 are in millimeters (mm)







HOW TO SERVICE

Strainer maintenace should be made at least once year, or whenever the pressure drop is found to be in excess of the normal figures. A quick clean-up system, to made approximately once a mounth, is to blow-off small impurities trough the drain-plug on cover (4). This operation is faster if a drain valve is installed. For a complete maintenance follow the points herebelow: ***-1-*** *Be sure that the main line has been shut-off.* ***-2-*** *Untighten nuts (5) remove sleeve (7) and studs (6).* ***-3-*** *Remove retain ring (10)* ***-4-*** *Reinstall the studs (6) to the cover and install studs (102) into threaded holes drilled on the screen casing end. Install four shims (101) with nuts (5 and 103) as per enclosed drawing.* ***-5-*** *Tighten the nuts (5) driving the cover (8) against the shims (101). This will also extract the gasket (3) from its seat and them until the gasket (3) is complety extracted from its seat and the cover (8) can be withdraw from the body.* ***-6-*** *Withdraw screen (2) and carefully inspect it for demages. If any hole in the screen is found obstructed, clean it with compressed air and/or any suitable tool. If the screen is broken in any part or out of shape, replace it with a new spare one.* ***Never reinstall a broken or distorted screen. -7-*** *Carefully clean the inside of the strainer body.* ***-8-*** *Install the new screen or the old cleaned one (2). Be sure the center the screen in the upper seat.* ***-9-*** *Install the cover (8) without the studs (6) making sure the screen (2) fits correctly in the cover seat. Check that the cover (8) is fully inserted in the body to allow the installation of the retain ring (10).* ***-10-*** *Install a new gasket (3) and the spacer ring (9).* ***-11-*** *Install retaing ring (10) in their recess in the body,making sure that the holes are visible.* ***-12-*** *Place the sleeve (7) in contact with its seat on the body (1).* ***-13-*** *Slowly cross-tighten the nuts (5) taking care that the cover (8) is kept in axis with the body. This is easily checked watching the gap between the sleeve (7) hole and cover's (8) hub.* ***-14-*** *Slowly give pressure to the line, checking for leakages.* ***-15-*** *Write on the strainer body or tag the date of this maintenance operation.*

How to order: i.e. *C900 CF8M / 316 F 1.5 16" 900 RTJ*

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

OFFICIAL WEB SITE: www.douglas-italia.com

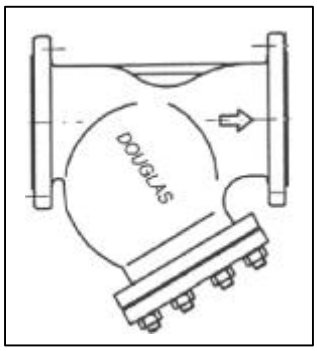
DOUGLAS ITALIA S.P.A.

CAST STEEL " Y "
TYPE STRAINERS DOUGLAS
C1500 WCB

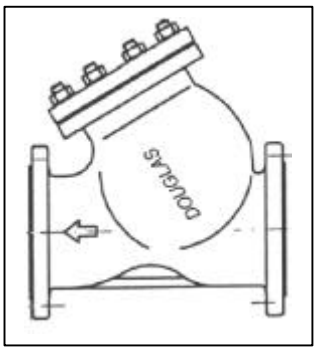
STRAINERS

Designed to ANSI B16.34 the strainer bodies are produced with a superior wallthickness for corrosion allowance.
Standard stainers are equipped with screens for the average service of most mediums (steam, gas, air, oil, chemicals , ect.).
The large screen open area ensures an efficent filtering action with a low pressure drop.
Filtering area to inlet area ratio is larger than 3 to 1 .
Screens area manufactured with perforated plate in the materials and with the perforation specified in the relevant tables .
Screens with different peforation (or wire mesh) and materials may be manufactured on request.

INSTALLATION



1 CORRECT



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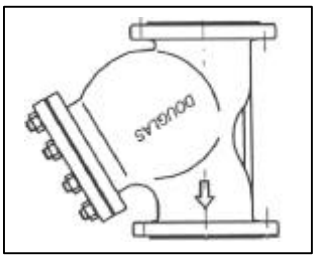

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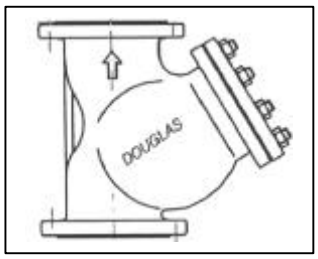


4 INCORRECT

- *All strainers should be mounted as close as possible to the valve or machinery which they are being installed to protect. It is important to ensure that the strainer installed with the flow following the same direction as the flow direction arrow cast onto the strainer body.*
- *For mounting in horizontal or inclined pipelines, ensure that the screen housing is always mounted below the pipeline.*
- *" Y " – strainers should never be installed in vertical pipelines in the upward flow condition. (see above)*

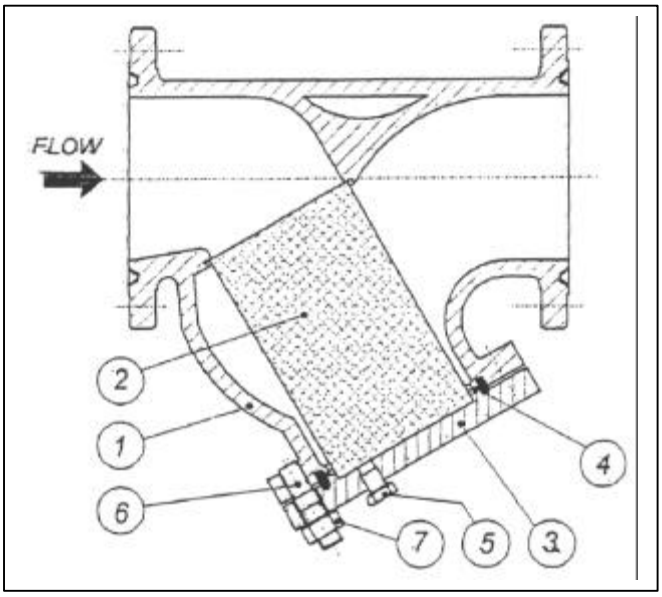
SIZES
2"–3"–4"–6"–8"

CONNECTIONS	
Buttweld	*ANSI B16.25*
Flanged	*ANSI B 16.5*

LIMITING CONDITIONS (according to ISO 6552)
According to the body rating (ANSI B16.34) *C1500 – ANSI 1500* *OTHER RATINGS ON REQUEST*

CAST STEEL " Y " TYPE STRAINERS DOUGLAS

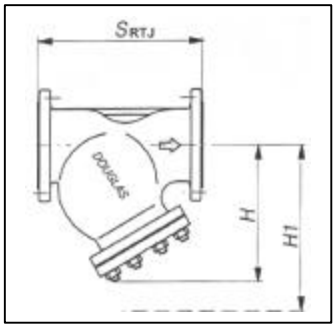
C1500 WCB

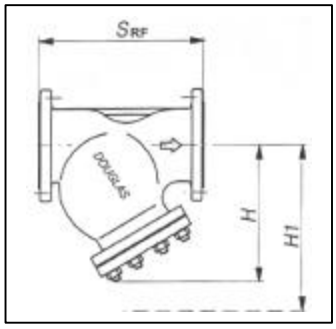


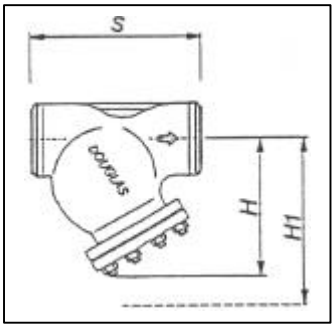
POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A216 WCB	
2	Screen	S.S. 304	X
3	Cover	ASTM A105	
4	Gasket RJ	ARMCO	X
5	Drain plug	ASTM A105	
6	Studs	ASTM A193 B7	
7	Nuts	ASTM A194 2H	
OTHER MATERIALS ON REQUEST			

Size (inches)	2"	3"	4"	6"	8"
SRTJ	371	473	549	711.5	842
SRF	368	470	546	705	832
S	368	470	546	705	832
H	250	325	375	480	620
H1	400	540	600	750	900
Kg	60	100	160	400	600

STANDARD PERFORATIONS 1.5 mm
SPECIAL PERFORATIONS ON REQUEST. DRAIN PLUG SIZE ¾"
Dimension : SRF , S , H , H1 are in millimeters (mm)







HOW TO SERVICE

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9- *Write on the strainer body the date of this maintenance operation.*

How to order: i.e. *C1500 WCB / 304 F 1.5 2" 900 RTJ*

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

CAST STEEL " Y "
TYPE STRAINERS DOUGLAS
C1500 CF8M

STRAINERS

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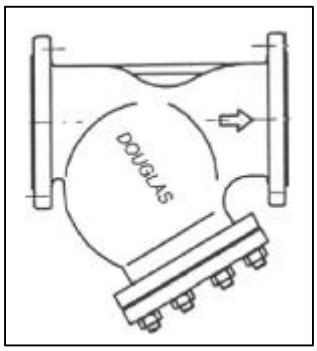
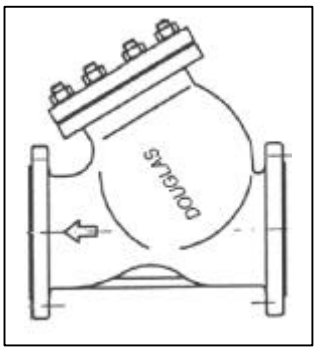
Filtering area to inlet area ratio is larger than 3 to 1 .
Screens area manufactured with perforated plate in the materials and with the perforation specified in the relevant tables .
Screens with different peforation (or wire mesh) and materials may be manufactured on request.

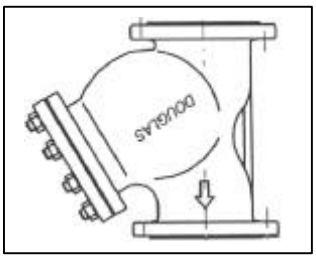
INSTALLATION



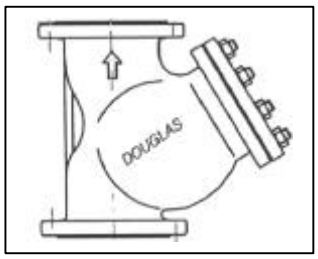
1 CORRECT



2 INCORRECT



3 CORRECT



4 INCORRECT

- *All strainers should be mounted as close as possible to the valve or machinery which they are being installed to protect. It is important to ensure that the strainer installed with the flow following the same direction as the flow direction arrow cast onto the strainer body.*
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- *" Y " – strainers should never be installed in vertical pipelines in the upward flow condition (see above)*

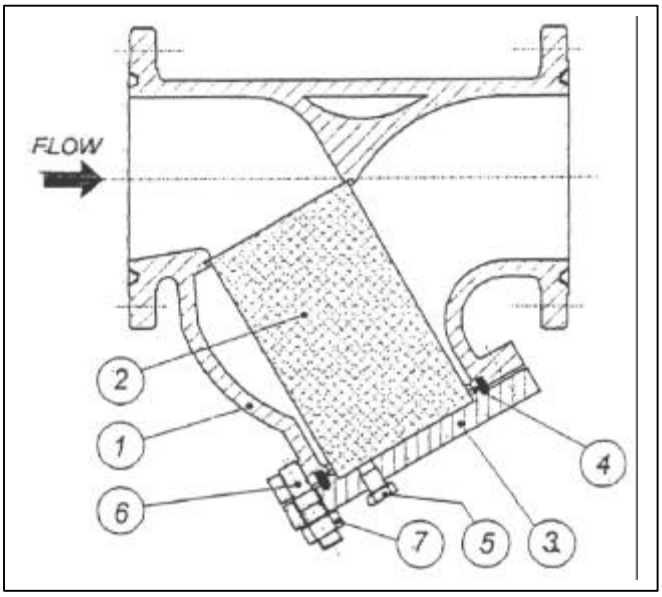
SIZES
2"–3"–4"–6"–8"

CONNECTIONS	
Buttweld	*ANSI B16.25*
Flanged	*ANSI B 16.5*

LIMITING CONDITIONS (according to ISO 6552)
According to the body rating (ANSI B16.34) *C1500 – ANSI 1500* *OTHER RATINGS ON REQUEST*

CAST STEEL " Y " TYPE STRAINERS DOUGLAS

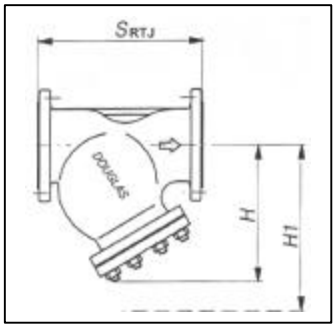
C1500 CF8M

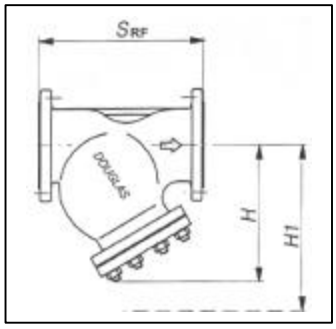


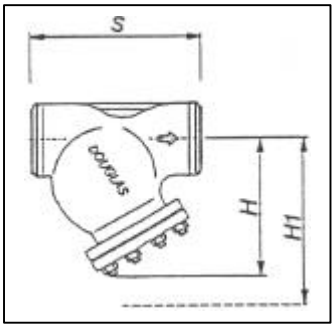
POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A351 CF8M	
2	Screen	S.S. 316	X
3	Cover	ASTM A240 316	
4	Gasket RJ	F316	X
5	Drain plug	AISI 316	
6	Studs	ASTM A193 B8	
7	Nuts	ASTM A194 Gr.8	
OTHER MATERIALS ON REQUEST			

Size (inches)	2"	3"	4"	6"	8"
SRTJ	371	473	549	711.5	842
SRF	368	470	546	705	832
S	368	470	546	705	832
H	250	325	375	480	620
H1	400	540	600	750	900
Kg	60	100	160	400	600

STANDARD PERFORATIONS 1.5 mm
SPECIAL PERFORATIONS ON REQUEST. DRAIN PLUG SIZE ¾"
Dimension : SRF , S , H , H1 are in millimeters (mm)







HOW TO SERVICE

Strainer maintenace should be made at least once year, or whenever the pressure drop is found to be in excess of the normal figures. A quick clean-up system, to made approximately once a mounth, is to blow-off small impurities trough the drain-plug (5). It is raccomanded to install a drain valve by a nipple to the drain hole to speed-up this operation. For a complete maintenance follow the points herebelow: ***-1-*** *Be sure that the main line has been shut-off.* ***-2-*** *Untighten cover stud bolts (6) and nuts (7) and remove cover (3) and gasket (4).* ***-3-*** *Withdraw screen (2) an carefully inspect it for damages. If any hole in the screen is found abstructed, clean it with compressed air and / or any suitable tool. If the screen is broken in any part or out of shape, replace it with a new spare one.* ***Never reinstall a broken or distorted screen.*** ***-4-*** *Carefully clean the inside of the strainer body.* ***-5-*** *Fit a new gasket (4).* ***-6-*** *Install the new screen or the cleaned one (2). Be sure to center the screen in the upper seat.* ***-7-*** *Put in place cover (3). Be sure that drain plug (5) is closed.* ***-8-*** *Slowly give pressure to the line, checking for leakages.*
9- *Write on the strainer body the date of this maintenance operation.*

How to order: i.e. *C1500 CF8M / 316 F 1.5 2" 900 RTJ*

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

CAST STEEL " Y "TYPE PRESSURE SEAL STRAINERS

C1500 WCB

STRAINERS

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Screens area manufactured with perforated plate in the materials and with the perforation specified in the relevant tables .
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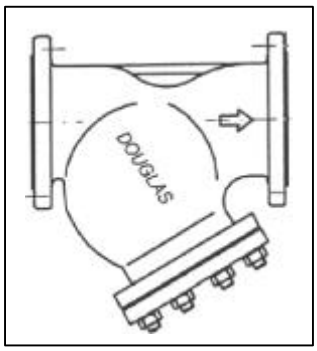
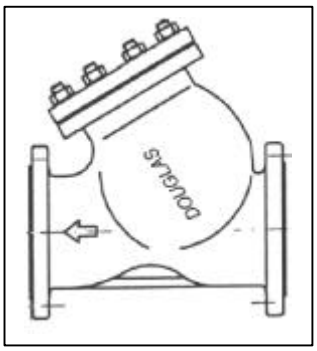
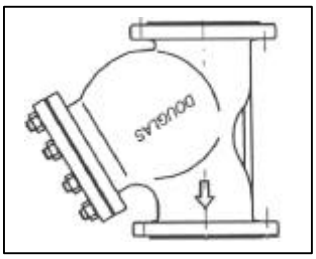
INSTALLATION



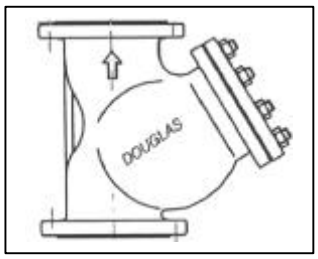
1 CORRECT



2 INCORRECT



3 CORRECT



4 INCORRECT

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- *" Y " – strainers should never be installed in vertical pipelines in the upward flow condition (see above)*

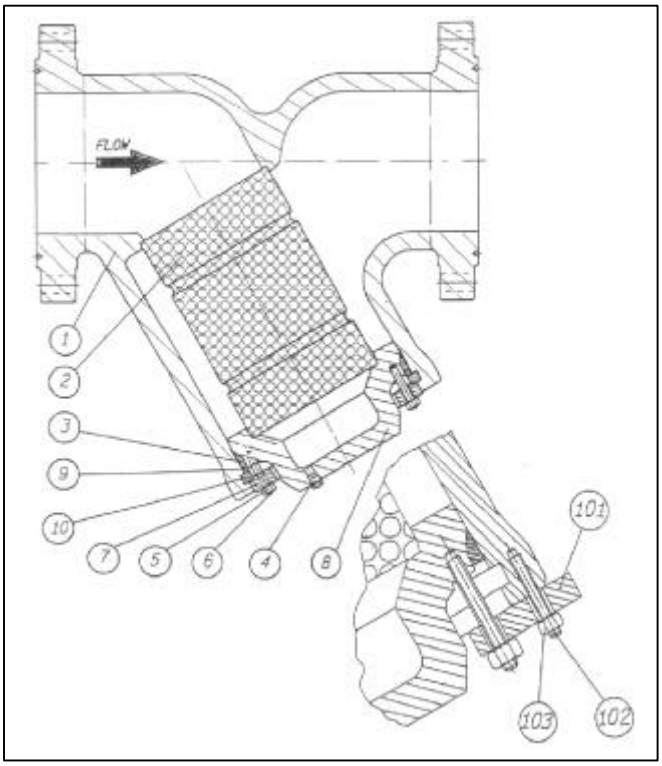
SIZES
10" – 12" – 14" – 16"

CONNECTIONS	
Buttweld	ANSI B16.25
Flanged	ANSI B 16.5

LIMITING CONDITIONS (according to ISO 6552)
According to the body rating (ANSI B16.34)
C1500 – ANSI 1500
OTHER RATINGS ON REQUEST

CAST STEEL " Y " TYPE PRESSURE SEAL STRAINERS

C1500 WCB

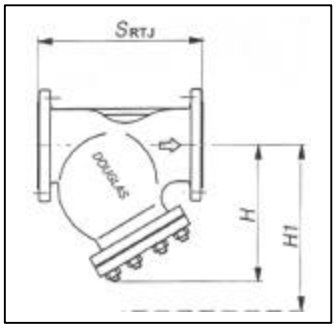


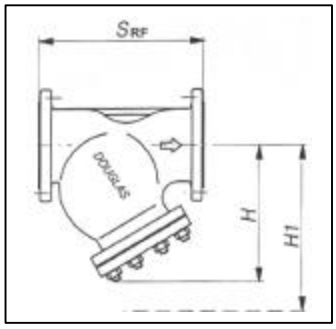
POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A216 WCB	
2	Screen	S.S. 304	X
3	Gasket	S.S. 304	X
4	Drain plug	A105	
5	Nuts	ASTM A194 2H	
6	Studs	ASTM A193 B7	
7	Sleeve	ASTM A105	
8	Cover	ASTM A105	
9	Ring	ASTM A182 F6	
10	Retain ring	ASTM A182 F6	

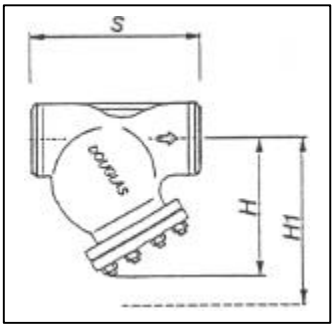
OTHER MATERIALS ON REQUEST

Size (inches)	10"	12"	14"	16"
SRTJ	1000	1146	1276	1407
SRF	991	1130	1257	1384
S	864	991	1067	1194
H	700	800	970	1150
H1	1100	1300	1500	1700
Kg	1200	1500	2320	2750

STANDARD PERFORATIONS 1.5 mm
SPECIAL PERFORATIONS ON REQUEST. DRAIN PLUG SIZE ¾"
Dimension : SRF , S , H , H1 are in millimeters (mm)







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How to order: i.e. *C1500 WCB / 304 F 1.5 16" 900 RTJ*

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OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

CAST STEEL " Y "TYPE PRESSURE SEAL STRAINERS

C1500 CF8M

STRAINERS

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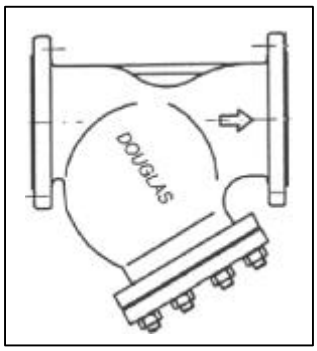
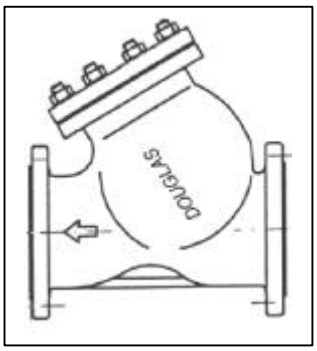
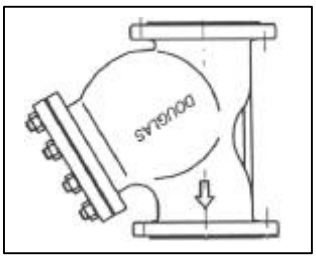
INSTALLATION



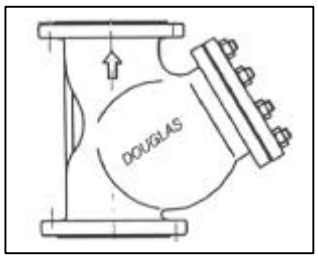
1 CORRECT



2 INCORRECT



3 CORRECT



4 INCORRECT

- *All strainers should be mounted as close as possible to the valve or machinery which they are being installed to protect. It is important to ensure that the strainer installed with the flow following the same direction as the flow direction arrow cast onto the strainer body.*
- *For mounting in horizontal or inclined pipelines, ensure that the screen housing is always mounted below the pipeline.*
- *" Y " – strainers should never be installed in vertical pipelines in the upward flow condition (see above)*

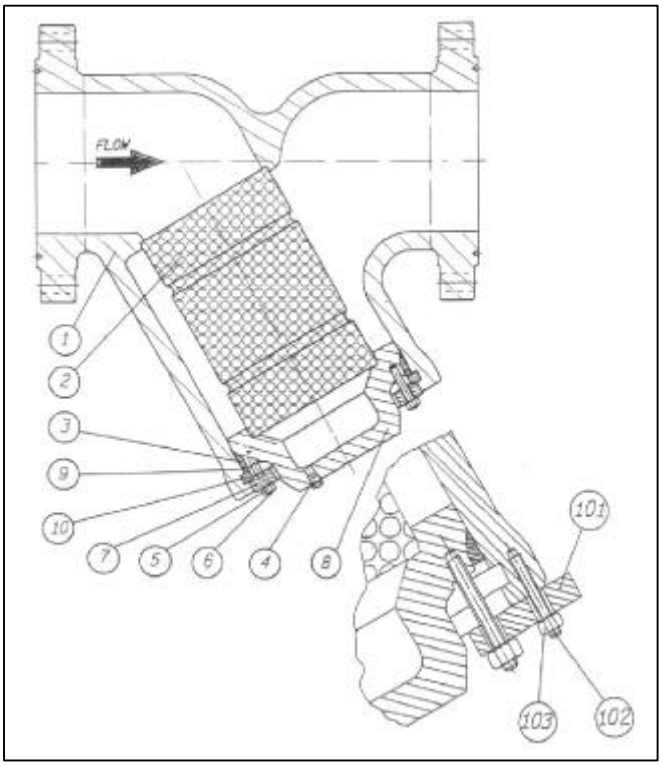
SIZES
10" – 12" – 14" – 16"

CONNECTIONS	
Buttweld	ANSI B16.25
Flanged	ANSI B 16.5

LIMITING CONDITIONS (according to ISO 6552)
According to the body rating (ANSI B16.34)
C1500 – ANSI 1500
OTHER RATINGS ON REQUEST

CAST STEEL " Y " TYPE PRESSURE SEAL STRAINERS

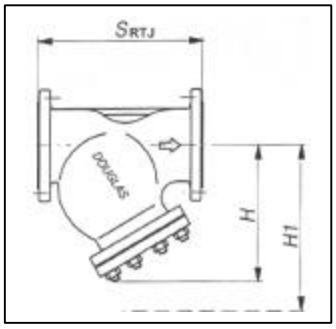
C1500 CF8M

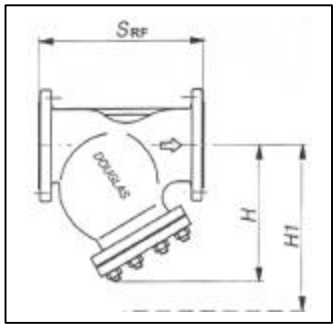


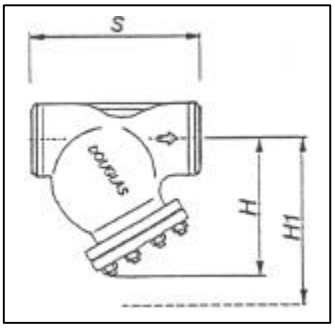
POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A351 CF8M	
2	Screen	S.S. 316	X
3	Gasket	A182 F316	X
4	Drain plug	S.S. 316	
5	Nuts	A194 Gr.8	
6	Studs	A193 B8	
7	Sleeve	A182 F316	
8	Cover	A182 F316	
9	Ring	A182 F6	
10	Retain ring	A182 F6	
OTHER MATERIALS ON REQUEST			

Size (inches)	10"	12"	14"	16"
SRTJ	1000	1146	1276	1407
SRF	991	1130	1257	1384
S	864	991	1067	1194
H	700	800	970	1150
H1	1100	1300	1500	1700
Kg	1200	1500	2320	2750

STANDARD PERFORATIONS 1.5 mm
SPECIAL PERFORATIONS ON REQUEST. DRAIN PLUG SIZE ¾"
Dimension : SRF , S , H , H1 are in millimeters (mm)







HOW TO SERVICE

Strainer maintenace should be made at least once year, or whenever the pressure drop is found to be in excess of the normal figures. A quick clean-up system, to made approximately once a mounth, is to blow-off small impurities trough the drain-plug on cover (4). This operation is faster if a drain valve is installed. For a complete maintenance follow the points herebelow: ***-1-*** *Be sure that the main line has been shut-off.* ***-2-*** *Untighten nuts (5) remove sleeve (7) and studs (6).* ***-3-*** *Remove retain ring (10)* ***-4-*** *Reinstall the studs (6) to the cover and install studs (102) into threaded holes drilled on the screen casing end. Install four shims (101) with nuts (5 and 103) as per enclosed drawing.* ***-5-*** *Tighten the nuts (5) driving the cover (8) against the shims (101). This will also extract the gasket (3) from its seat and them until the gasket (3) is complety extracted from its seat and the cover (8) can be withdraw from the body.* ***-6-*** *Withdraw screen (2) and carefully inspect it for demages. If any hole in the screen is found obstructed, clean it with compressed air and/or any suitable tool. If the screen is broken in any part or out of shape, replace it with a new spare one.* ***Never reinstall a broken or distorted screen.*** ***-7-*** *Carefully clean the inside of the strainer body.* ***-8-*** *Install the new screen or the old cleaned one (2). Be sure the center the screen in the upper seat.* ***-9-*** *Install the cover (8) without the studs (6) making sure the screen (2) fits correctly in the cover seat. Check that the cover (8) is fully inserted in the body to allow the installation of the retain ring (10).* ***-10-*** *Install a new gasket (3) and the spacer ring (9).* ***-11-*** *Install retaing ring (10) in their recess in the body,making sure that the holes are visible.* ***-12-*** *Place the sleeve (7) in contact with its seat on the body (1).* ***-13-*** *Slowly cross-tighten the nuts (5) taking care that the cover (8) is kept in axis with the body. This is easily checked watching the gap between the sleeve (7) hole and cover's (8) hub.* ***-14-*** *Slowly give pressure to the line, checking for leakages.* ***-15-*** *Write on the strainer body or tag the date of this maintenance operation.*

How to order: i.e. *C1500 CF8M / 316 F 1.5 16" 900 RTJ*

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DOUGLAS ITALIA

TEMPORARY

FT 1

FT 2

FT 3

GO BACK

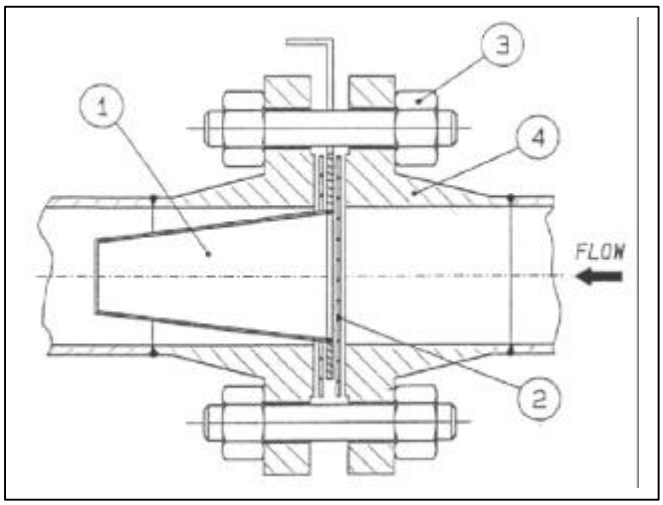
DOUGLAS ITALIA S.P.A.

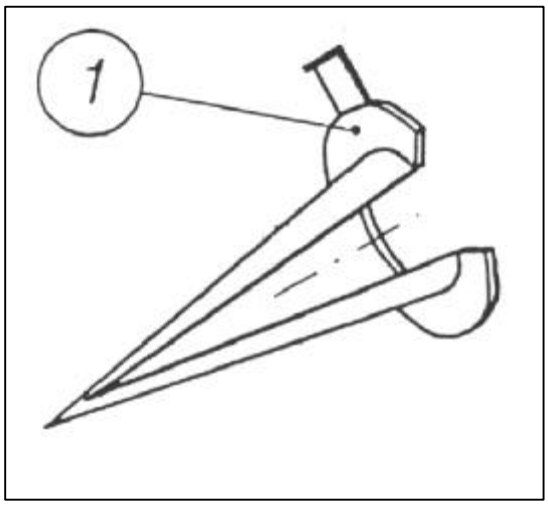
CONICAL TYPE TEMPORARY STRAINERS DOUGLAS

FT1

STRAINERS

Conical type temporary strainers are designed for the efficent removal of solids in new pipeline start up service.
They are compact and rugged and can be installed either vertically or horizontally.
They can be manufactured using any kind or wire mesh or perforated plate , in carbon and stainless steel or exotic alloys.
Given dimensions are for reference purpose only.
Strainers may be manufactured to any customer's standard.
Strainers are designed to be installed between ANSI B16.5 flanges and meet FF , RF and RTJ facings.





ASSEMBLY INSTRUCTION

1) *Insert the strainer between the two flanges (4)*
2) *Make sure the two gasket are fitted on both sides*
3) *Tighten bolts (3) keeping the strainer (1) + gaskets (2) in the correct position*

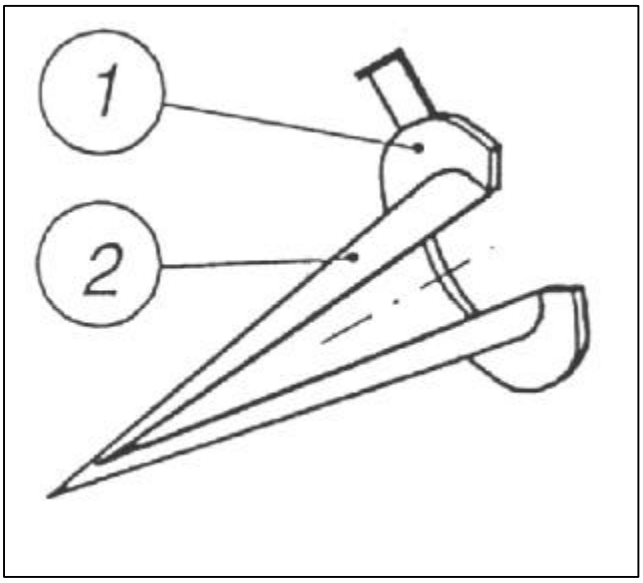
MAINTENANCE INSTRUCTIONS

1) *Unscrew bolts (3)*
2) *Remove the strainer (1) and clean or replace it*
3) *When re-assembling use new gaskets*

SIZES
1½" – 2" – 3" – 4" – 6" – 8" – 10" – 12" – 14" – 16" – 18" – 20" – 24"

CONICAL TYPE TEMPORARY STRAINERS DOUGLAS

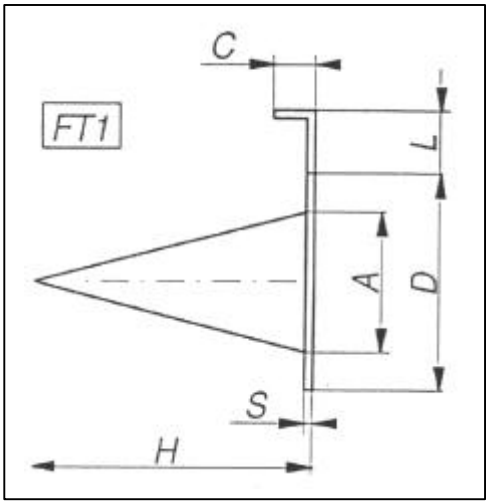
FT1



POS.	DESCRIPTION	MATERIALS	SPARES
1	Ring	CARBON STEEL	
2	Perforated plate	ASTM A240 304	
OTHER MATERIALS AND DIMENSIONS ON REQUEST			

Size (inches)	1½"	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
D	73	92	127	157	216	270	324	381	412	470	534	584	692
H	60	80	120	150	230	300	350	400	450	500	550	600	650
L	70	70	70	80	100	100	110	110	120	130	130	140	150
C	20	20	20	20	20	20	20	20	20	20	20	20	20
S	3	3	3	3	5	5	5	5	5	7	7	7	7
A	33	48	75	100	150	200	250	300	332	383	434	485	587
B	20	26	44	60	89	118	149	175	194	224	250	285	300

Dimensions : D , H , L , C , S , A , B are in millimeters (mm)
OTHER SIZES ON REQUEST



How to order: i.e. FT1 4" 150# A240 TP304 – PERF. HOLS 3 mm DIA

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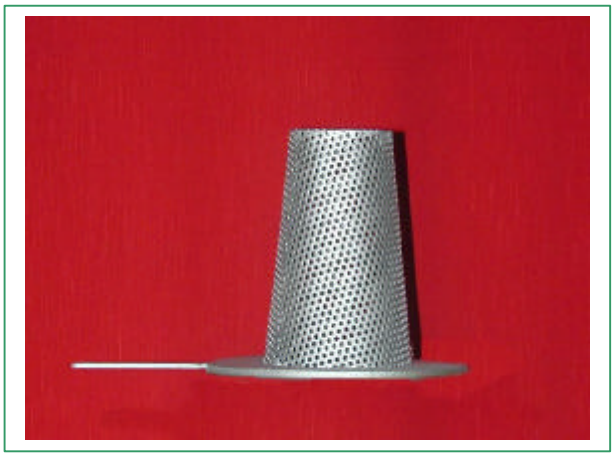
DOUGLAS ITALIA S.P.A.

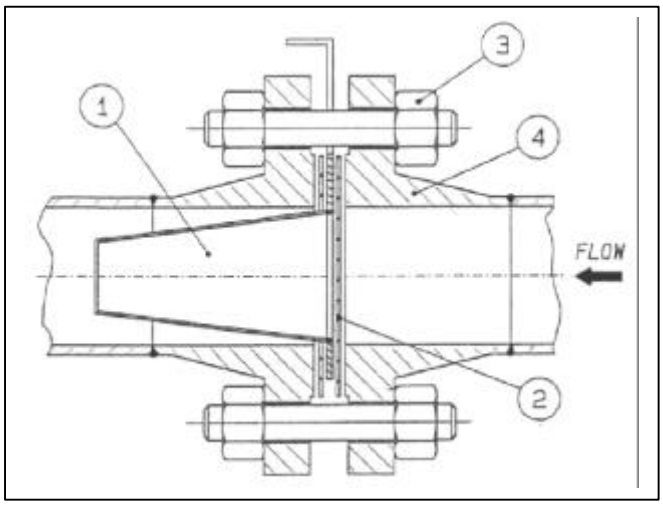
CONICAL TYPE TEMPORARY STRAINERS DOUGLAS

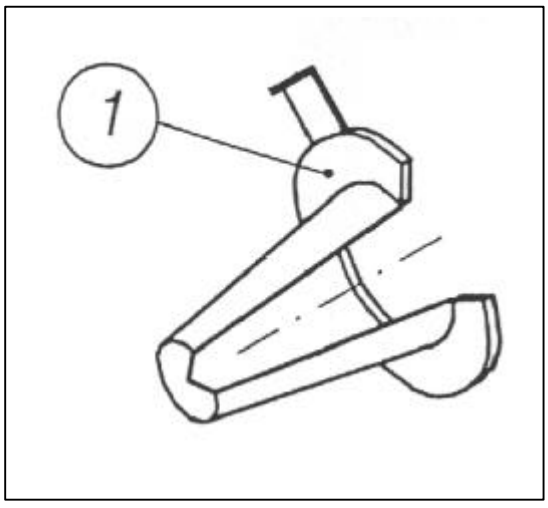
FT2

STRAINERS



Conical type temporary strainers are designed for the efficent removal of solids in new pipeline start up service.
They are compact and rugged and can be installed either vertically or horizontally.
They can be manufactured using any kind or wire mesh or perforated plate , in carbon and stainless steel or exotic alloys.
Given dimensions are for reference purpose only.
Strainers may be manufactured to any customer's standard.
Strainers are designed to be installed between ANSI B16.5 flanges and meet FF , RF and RTJ facings.





ASSEMBLY INSTRUCTION

1) *Insert the strainer between the two flanges (4)*
2) *Make sure the two gasket are fitted on both sides*
3) *Tighten bolts (3) keeping the strainer (1) + gaskets (2) in the correct position*

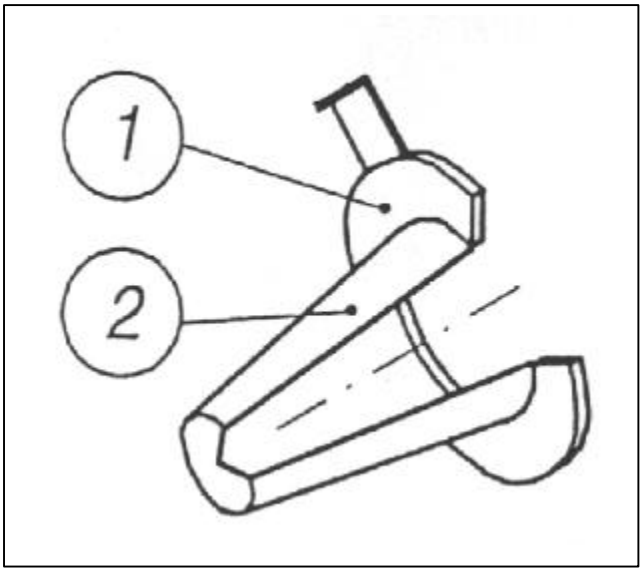
MAINTENANCE INSTRUCTIONS

1) *Unscrew bolts (3)*
2) *Remove the strainer (1) and clean or replace it*
3) *When re-assembling use new gaskets*

SIZES
1½" – 2" – 3" – 4" – 6" – 8" – 10" – 12" – 14" – 16" – 18" – 20" – 24"

CONICAL TYPE TEMPORARY STRAINERS DOUGLAS

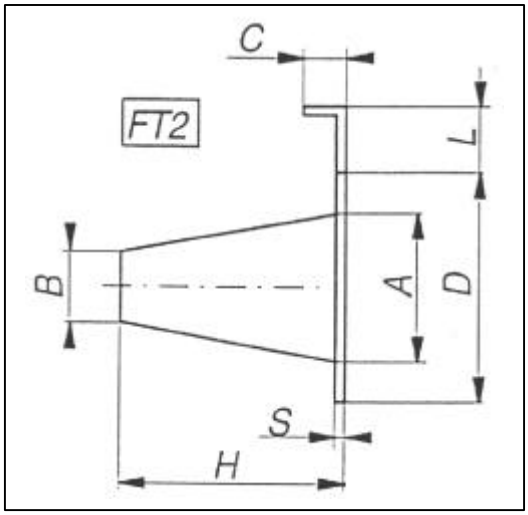
FT2



POS.	DESCRIPTION	MATERIALS	SPARES
1	Ring	CARBON STEEL	
2	Perforated plate	ASTM A240 304	
OTHER MATERIALS AND DIMENSIONS ON REQUEST			

Size (inches)	1½"	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
D	73	92	127	157	216	270	324	381	412	470	534	584	692
H	60	80	120	150	230	300	350	400	450	500	550	600	650
L	70	70	70	80	100	100	110	110	120	130	130	140	150
C	20	20	20	20	20	20	20	20	20	20	20	20	20
S	3	3	3	3	5	5	5	5	5	7	7	7	7
A	33	48	75	100	150	200	250	300	332	383	434	485	587
B	20	26	44	60	89	118	149	175	194	224	250	285	300

Dimensions : D , H , L , C , S , A , B are in millimeters (mm)
OTHER SIZES ON REQUEST



How to order: i.e. FT2 4" 150# A240 TP304 – PERF. HOLS 3 mm DIA

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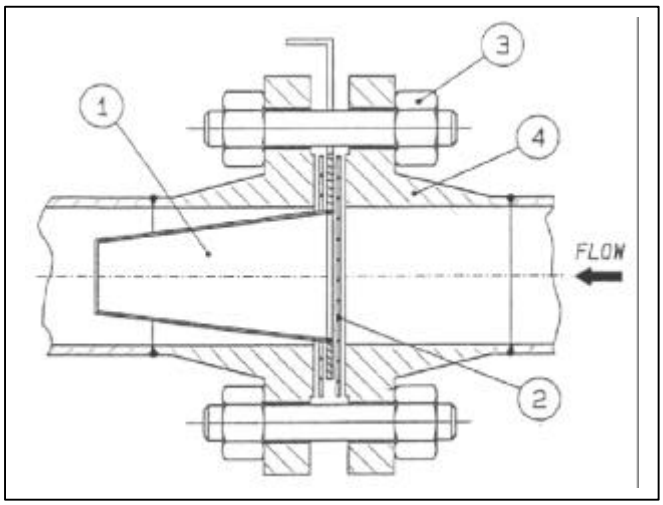
DOUGLAS ITALIA S.P.A.

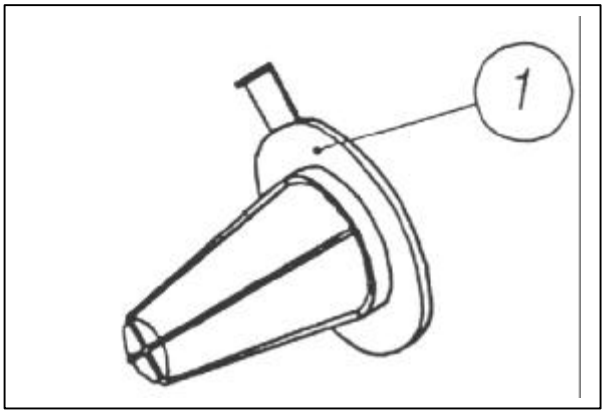
CONICAL TYPE TEMPORARY STRAINERS DOUGLAS

FT3

STRAINERS

Conical type temporary strainers are designed for the efficent removal of solids in new pipeline start up service.
They are compact and rugged and can be installed either vertically or horizontally.
They can be manufactured using any kind or wire mesh or perforated plate , in carbon and stainless steel or exotic alloys.
Given dimensions are for reference purpose only.
Strainers may be manufactured to any customer's standard.
Strainers are designed to be installed between ANSI B16.5 flanges and meet FF , RF and RTJ facings.





ASSEMBLY INSTRUCTION

1) *Insert the strainer between the two flanges (4)*
2) *Make sure the two gasket are fitted on both sides*
3) *Tighten bolts (3) keeping the strainer (1) + gaskets (2) in the correct position*

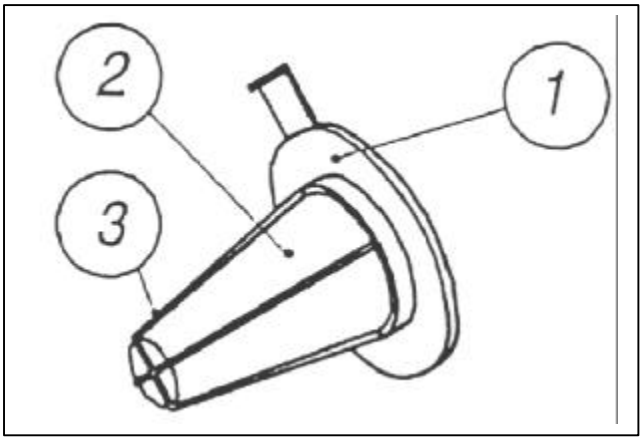
MAINTENANCE INSTRUCTIONS

1) *Unscrew bolts (3)*
2) *Remove the strainer (1) and clean or replace it*
3) *When re-assembling use new gaskets*

SIZES
1½" – 2" – 3" – 4" – 6" – 8" – 10" – 12" – 14" – 16" – 18" – 20" – 24"

CONICAL TYPE TEMPORARY STRAINERS DOUGLAS

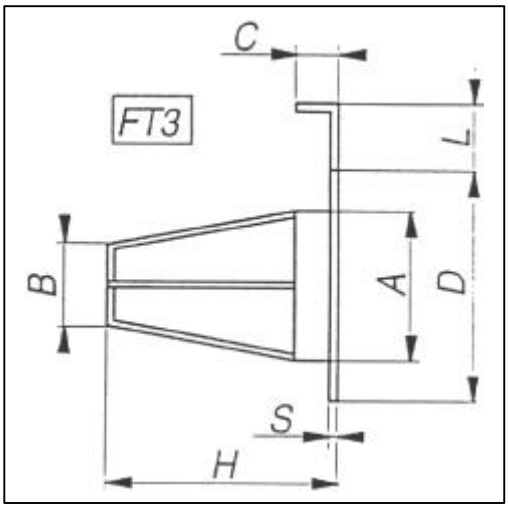
FT3



POS.	DESCRIPTION	MATERIALS	SPARES
1	Ring	CARBON STEEL	
2	Wire mesh	S.S. 304	
3	Rods	S.S. 304	
OTHER MATERIALS AND DIMENSIONS ON REQUEST			

Size (inches)	1½"	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
D	73	92	127	157	216	270	324	381	412	470	534	584	692
H	60	80	120	150	230	300	350	400	450	500	550	600	650
L	70	70	70	80	100	100	110	110	120	130	130	140	150
C	20	20	20	20	20	20	20	20	20	20	20	20	20
S	3	3	3	3	5	5	5	5	5	7	7	7	7
A	33	48	75	100	150	200	250	300	332	383	434	485	587
B	20	26	44	60	89	118	149	175	194	224	250	285	300

Dimensions : D , H , L , C , S , A , B are in millimeters (mm)
OTHER SIZES ON REQUEST



How to order: i.e. FT3 4" 150# A240 TP304 – 3 MESH FILTRATION

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DOUGLAS ITALIA

TEE

- FS 150
- FS 300
- FS 600
- FS 900

GO BACK

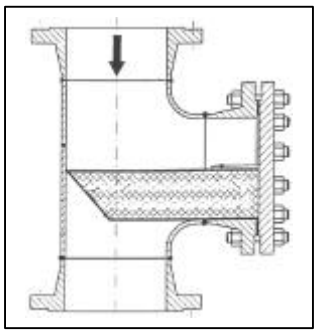
DOUGLAS ITALIA S.P.A.

TEE
TYPE STRAINERS DOUGLAS
FS150

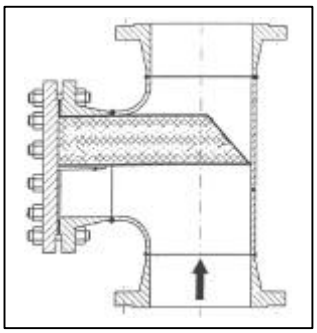
STRAINERS

Designed to ANSI B16.34 the strainer bodies are produced with a superior wallthickness for corrosion allowance.
Standard stainers are equipped with screens for the average service of most mediums (steam, gas, air, oil, chemicals , ect.).
The large screen open area ensures an efficent filtering action with a low pressure drop.
Filtering area to inlet area ratio is larger than 3 to 1 .
Screens area manufactured with perforated plate in the materials and with the perforation specified in the relevant tables .
Screens with different peforation (or wire mesh) and materials may be manufactured on request.

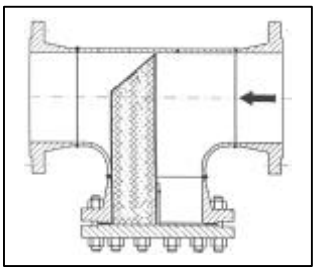
INSTALLATION



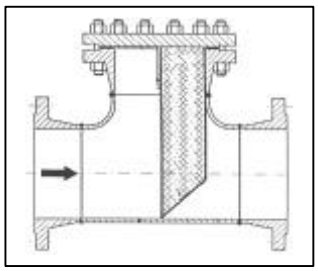
1 CORRECT



2 INCORRECT



3 CORRECT



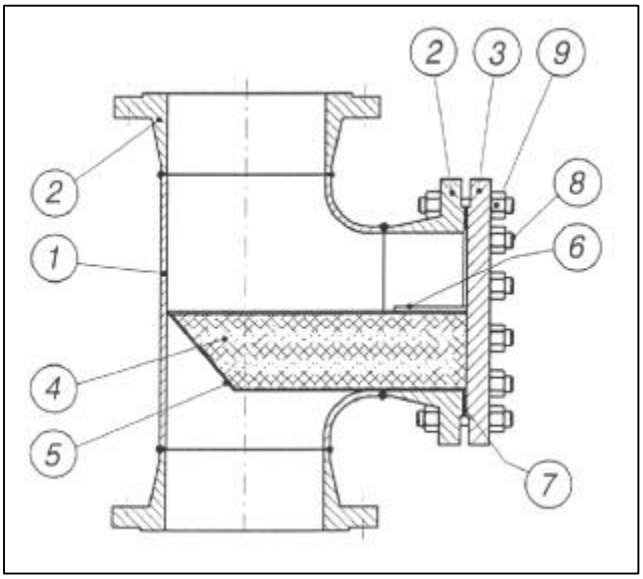
4 INCORRECT

- *All strainers should be mounted as close as possible to the valve or machinery which they are being installed to protect. It is important to ensure that the strainer installed with the flow following the same direction as the flow direction arrow cast onto the strainer body.*
- *For mounting in horizontal or inclined pipelines, ensure that the screen housing is always mounted below the pipeline.*
- *T – strainers should never be installed in vertical pipelines in the upward flow condition. (see above)*

SIZES
2”–3”–4”–6”–8”–10”–12”–16”–18”–20”–24”

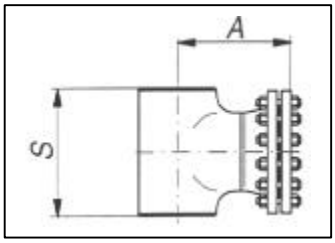
CONNECTIONS	
Buttweld	ANSI B16.25
Flanged	ANSI B16.5

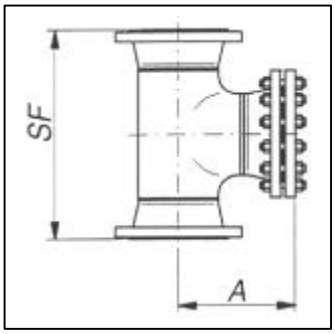
TEE TYPE STRAINERS DOUGLAS
FS150



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A234 WPB	
2	Flange	ASTM A105	
3	Blind flange	ASTM A105	
4	Basket	S.S. 304	X
5	Frame	S.S. 304	
6	Guide rods	CARBON STEEL	
7	Gasket	CAF	X
8	Bolts	ASTM A193 B7	
9	Nuts	ASTM A194 2H	
OTHER MATERIALS AND DIMENSIONS ON REQUEST			

Size (inches)	2”	3”	4”	6”	8”	10”	12”	16”	18”	20”	24”
S	127	172	210	286	356	432	508	610	686	762	864
SF	254	312	363	464	560	636	737	864	966	1052	1169
A	148	182	208	260	311	351	403	472	525	571	635
Dimension : SF , S , A are in millimeters (mm)											





HOW TO SERVICE

Strainer maintenace should be made at least once year, or whenever the pressure drop is found to be in excess of the normal figures. A quick clean-up system, to made approximately once a mounth. For a complete maintenance follow the points herebelow: ***-1-*** *Be sure that the main line has been shut-off.* ***-2-*** *Untighten cover stud bolts (8) and nuts (9) and remove cover [blind flange] (3) and gasket (7).* ***-3-*** *Withdraw basket (4) an carefully inspect it for damages. If any hole in the screen is found abstructed, clean it with compressed air and / or any suitable tool. If the basket is broken in any part or out of shape, replace it with a new spare one.* ***-4-*** *Carefully clean the inside of the strainer body.* ***-5-*** *Fit a new gasket (7).* ***-6-*** *Install the new screen or the cleaned one (4).* ***-7-*** *Put in place cover (3).* ***-8-*** *Slowly give pressure to the line, checking for leakages.* ***-9-*** *Write on the strainer body the date of this maintenance operation.*

How to order: i.e. *FS150 WPB – A105 / 304 – 3 MESH – 150 RF*

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

OFFICIAL WEB SITE: www.douglas-italia.com

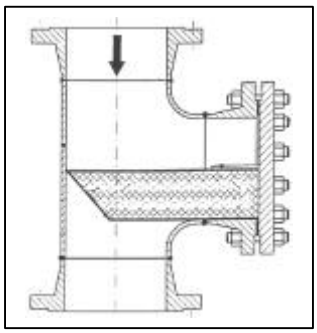
DOUGLAS ITALIA S.P.A.

TEE
TYPE STRAINERS DOUGLAS
FS300

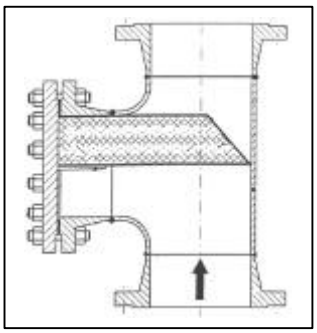
STRAINERS

Designed to ANSI B16.34 the strainer bodies are produced with a superior wallthickness for corrosion allowance.
Standard stainers are equipped with screens for the average service of most mediums (steam, gas, air, oil, chemicals , ect.).
The large screen open area ensures an efficent filtering action with a low pressure drop.
Filtering area to inlet area ratio is larger than 3 to 1 .
Screens area manufactured with perforated plate in the materials and with the perforation specified in the relevant tables .
Screens with different peforation (or wire mesh) and materials may be manufactured on request.

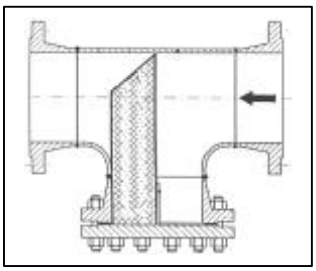
INSTALLATION



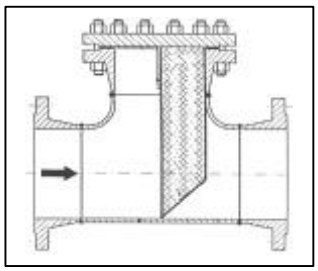
1 CORRECT



2 INCORRECT



3 CORRECT



4 INCORRECT

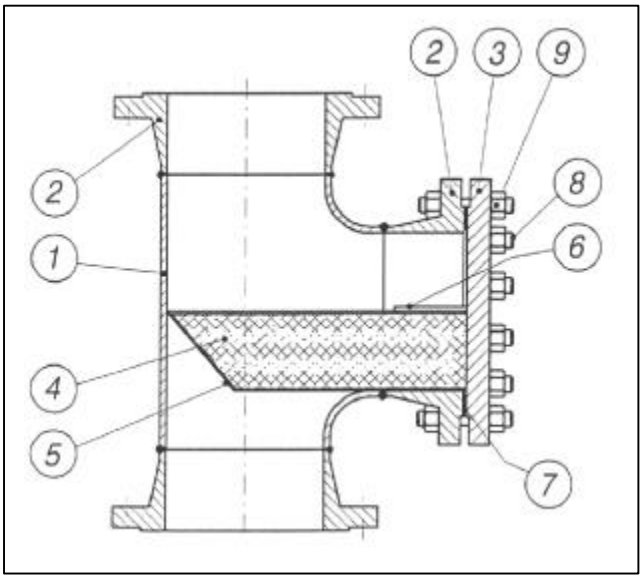
- *All strainers should be mounted as close as possible to the valve or machinery which they are being installed to protect. It is important to ensure that the strainer installed with the flow following the same direction as the flow direction arrow cast onto the strainer body.*
- *For mounting in horizontal or inclined pipelines, ensure that the screen housing is always mounted below the pipeline.*
- *T – strainers should never be installed in vertical pipelines in the upward flow condition. (see above)*

SIZES
2”–3”–4”–6”–8”–10”–12”–16”–18”–20”–24”

CONNECTIONS	
Buttweld	ANSI B16.25
Flanged	ANSI B16.5

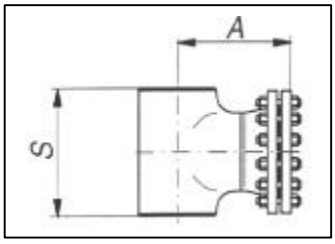
TEE TYPE STRAINERS DOUGLAS

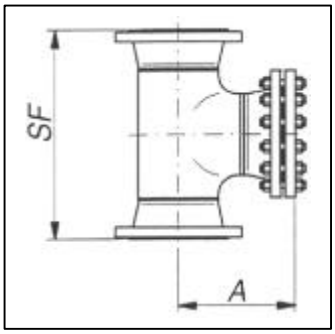
FS300



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A234 WPB	
2	Flange	ASTM A105	
3	Blind flange	ASTM A105	
4	Basket	S.S. 304	X
5	Frame	S.S. 304	
6	Guide rods	CARBON STEEL	
7	Gasket	CAF	X
8	Bolts	ASTM A193 B7	
9	Nuts	ASTM A194 2H	
OTHER MATERIALS AND DIMENSIONS ON REQUEST			

Size (inches)	2”	3”	4”	6”	8”	10”	12”	16”	18”	20”	24”
S	127	172	210	286	356	432	508	610	686	762	864
SF	268	332	382	483	579	668	769	903	1004	1086	1201
A	158	197	225	281	333	385	438	511	565	609	673
Dimension : SF , S , A are in millimeters (mm)											





HOW TO SERVICE

Strainer maintenace should be made at least once year, or whenever the pressure drop is found to be in excess of the normal figures. A quick clean-up system, to made approximately once a mounth. For a complete maintenance follow the points herebelow: ***-1-*** *Be sure that the main line has been shut-off.* ***-2-*** *Untighten cover stud bolts (8) and nuts (9) and remove cover [blind flange] (3) and gasket (7).* ***-3-*** *Withdraw basket (4) an carefully inspect it for damages. If any hole in the screen is found abstructed, clean it with compressed air and / or any suitable tool. If the basket is broken in any part or out of shape, replace it with a new spare one.* ***-4-*** *Carefully clean the inside of the strainer body.* ***-5-*** *Fit a new gasket (7).* ***-6-*** *Install the new screen or the cleaned one (4).* ***-7-*** *Put in place cover (3).* ***-8-*** *Slowly give pressure to the line, checking for leakages.* ***-9-*** *Write on the strainer body the date of this maintenance operation.*

How to order: i.e. *FS300 WPB – A105 / 304 – 3 MESH – 300 RF*

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

OFFICIAL WEB SITE: www.douglas-italia.com

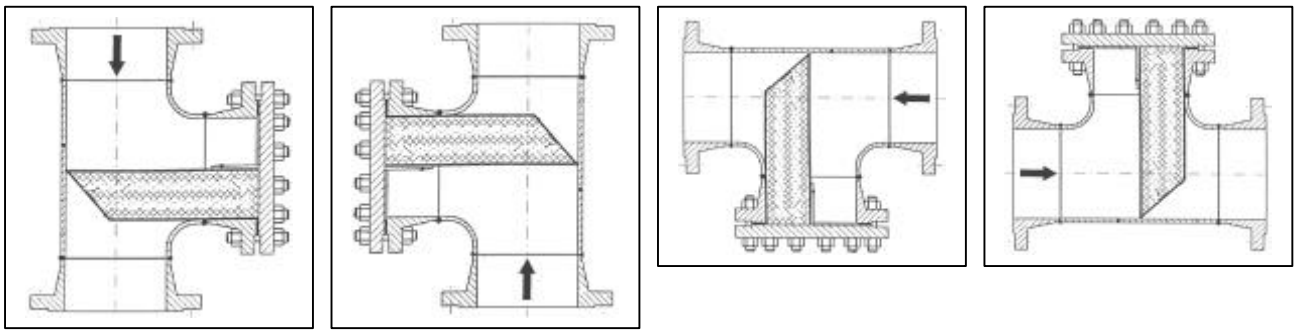
DOUGLAS ITALIA S.P.A.

TEE
TYPE STRAINERS DOUGLAS
FS600

STRAINERS

Designed to ANSI B16.34 the strainer bodies are produced with a superior wallthickness for corrosion allowance.
Standard stainers are equipped with screens for the average service of most mediums (steam, gas, air, oil, chemicals , ect.).
The large screen open area ensures an efficent filtering action with a low pressure drop.
Filtering area to inlet area ratio is larger than 3 to 1 .
Screens area manufactured with perforated plate in the materials and with the perforation specified in the relevant tables .
Screens with different peforation (or wire mesh) and materials may be manufactured on request.

INSTALLATION



1 CORRECT	2 INCORRECT	3 CORRECT	4 INCORRECT

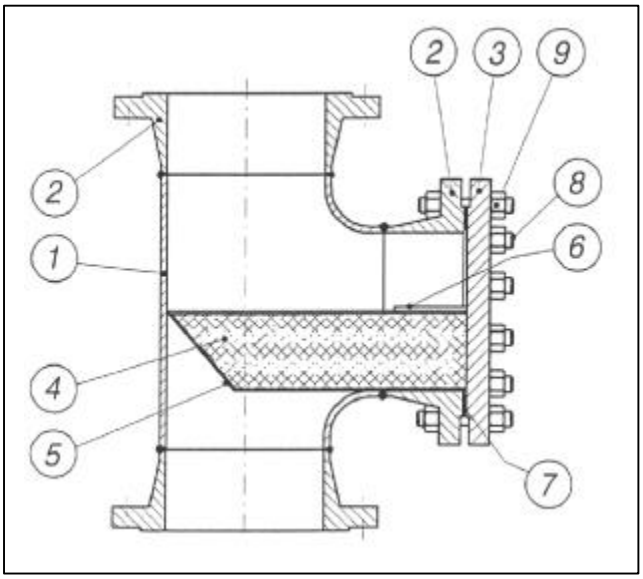
- *All strainers should be mounted as close as possible to the valve or machinery which they are being installed to protect. It is important to ensure that the strainer installed with the flow following the same direction as the flow direction arrow cast onto the strainer body.*
- *For mounting in horizontal or inclined pipelines, ensure that the screen housing is always mounted below the pipeline.*
- *T – strainers should never be installed in vertical pipelines in the upward flow condition. (see above)*

SIZES
2”–3”–4”–6”–8”–10”–12”–16”–18”–20”–24”

CONNECTIONS	
Buttweld	ANSI B16.25
Flanged	ANSI B16.5

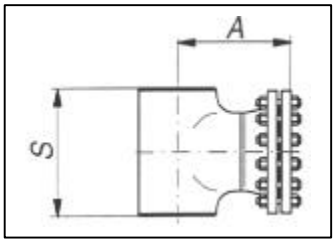
TEE TYPE STRAINERS DOUGLAS

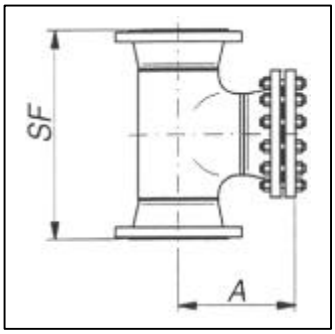
FS600



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A234 WPB	
2	Flange	ASTM A105	
3	Blind flange	ASTM A105	
4	Basket	S.S. 304	X
5	Frame	S.S. 304	
6	Guide rods	CARBON STEEL	
7	Gasket	CAF	X
8	Bolts	ASTM A193 B7	
9	Nuts	ASTM A194 2H	
OTHER MATERIALS AND DIMENSIONS ON REQUEST			

Size (inches)	2”	3”	4”	6”	8”	10”	12”	16”	18”	20”	24”
S	127	172	210	286	356	432	508	610	686	762	864
SF	286	351	427	535	636	750	833	979	1067	1156	1284
A	177	216	260	324	382	447	492	574	624	676	753
Dimension : SF , S , A are in millimeters (mm)											





HOW TO SERVICE

Strainer maintenace should be made at least once year, or whenever the pressure drop is found to be in excess of the normal figures. A quick clean-up system, to made approximately once a mounth. For a complete maintenance follow the points herebelow: ***-1-*** *Be sure that the main line has been shut-off.* ***-2-*** *Untighten cover stud bolts (8) and nuts (9) and remove cover [blind flange] (3) and gasket (7).* ***-3-*** *Withdraw basket (4) an carefully inspect it for damages. If any hole in the screen is found abstructed, clean it with compressed air and / or any suitable tool. If the basket is broken in any part or out of shape, replace it with a new spare one.* ***-4-*** *Carefully clean the inside of the strainer body.* ***-5-*** *Fit a new gasket (7).* ***-6-*** *Install the new screen or the cleaned one (4).* ***-7-*** *Put in place cover (3).* ***-8-*** *Slowly give pressure to the line, checking for leakages.* ***-9-*** *Write on the strainer body the date of this maintenance operation.*

How to order: i.e. *FS600 WPB – A105 / 304 – 3 MESH – 600 RF*

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

OFFICIAL WEB SITE: www.douglas-italia.com

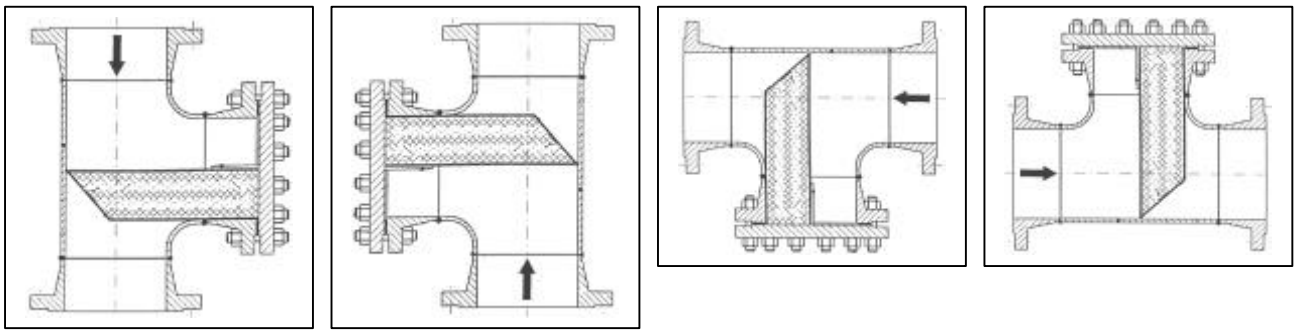
DOUGLAS ITALIA S.P.A.

TEE
TYPE STRAINERS DOUGLAS
FS900

STRAINERS

Designed to ANSI B16.34 the strainer bodies are produced with a superior wallthickness for corrosion allowance.
Standard stainers are equipped with screens for the average service of most mediums (steam, gas, air, oil, chemicals , ect.).
The large screen open area ensures an efficent filtering action with a low pressure drop.
Filtering area to inlet area ratio is larger than 3 to 1 .
Screens area manufactured with perforated plate in the materials and with the perforation specified in the relevant tables .
Screens with different peforation (or wire mesh) and materials may be manufactured on request.

INSTALLATION



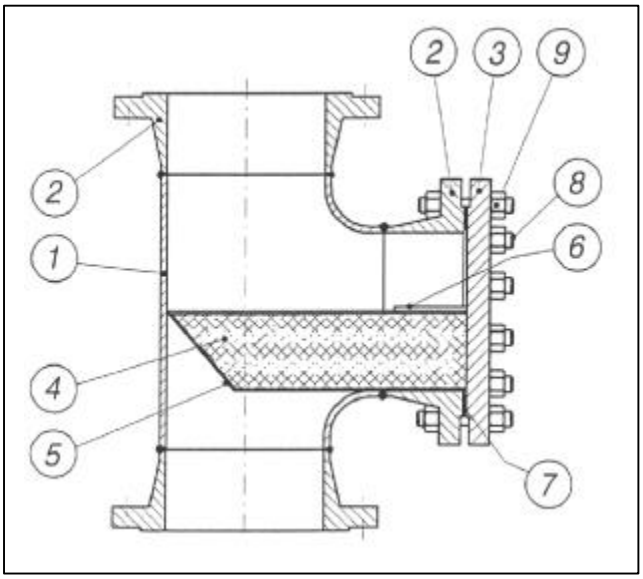
1 CORRECT	2 INCORRECT	3 CORRECT	4 INCORRECT

- *All strainers should be mounted as close as possible to the valve or machinery which they are being installed to protect. It is important to ensure that the strainer installed with the flow following the same direction as the flow direction arrow cast onto the strainer body.*
- *For mounting in horizontal or inclined pipelines, ensure that the screen housing is always mounted below the pipeline.*
- *T – strainers should never be installed in vertical pipelines in the upward flow condition. (see above)*

SIZES
2”–3”–4”–6”–8”–10”–12”–16”–18”–20”–24”

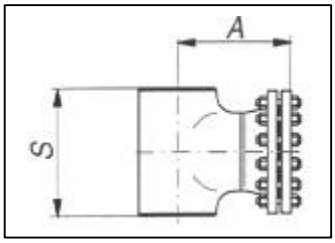
CONNECTIONS	
Buttweld	ANSI B16.25
Flanged	ANSI B16.5

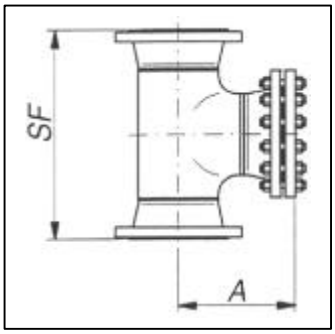
TEE TYPE STRAINERS DOUGLAS
FS900



POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A234 WPB	
2	Flange	ASTM A105	
3	Blind flange	ASTM A105	
4	Basket	S.S. 304	X
5	Frame	S.S. 304	
6	Guide rods	CARBON STEEL	
7	Gasket	CAF	X
8	Bolts	ASTM A193 B7	
9	Nuts	ASTM A194 2H	
OTHER MATERIALS AND DIMENSIONS ON REQUEST			

Size (inches)	2”	3”	4”	6”	8”	10”	12”	16”	18”	20”	24”
S	127	172	210	286	356	432	508	610	686	762	864
SF	343	389	453	579	694	813	922	1056	1157	1271	1462
A	219	242	279	353	419	485	549	626	689	752	879
Dimension : SF , S , A are in millimeters (mm)											





HOW TO SERVICE

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How to order: i.e. *FS900 WPB – A105 / 304 – 3 MESH – 900 RF*

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA

SIMPLEX

MO 150

MO 300

GO BACK

DOUGLAS ITALIA S.P.A.

SIMPLEX FILTERS

MO 150

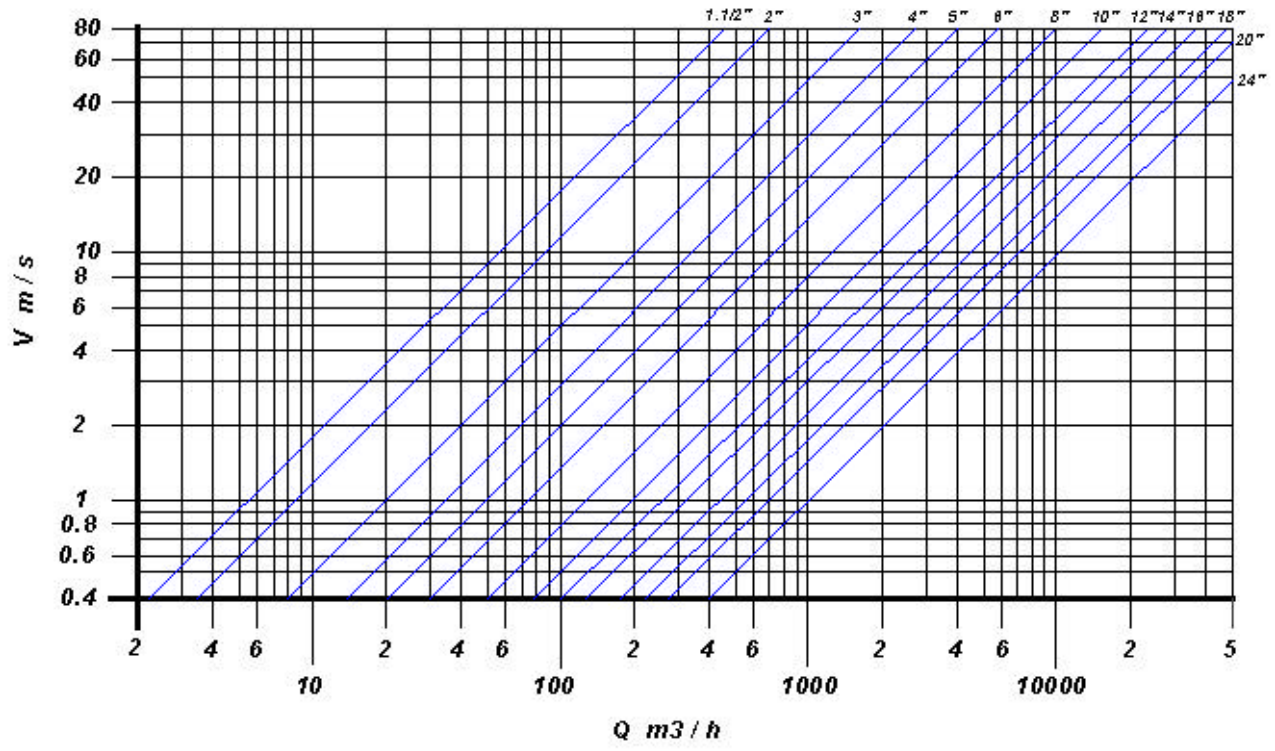
SIMPLEX STRAINERS

Douglas Italia fabricated Simplex (basket) strainers have been specifically designed to meet all customer requirements including for high pressure applications.

Designed and fabricated to ASME VIII Div.1 as standard but can also be supplied to other pressure vessel codes. I.e. ASME B31.3 etc.

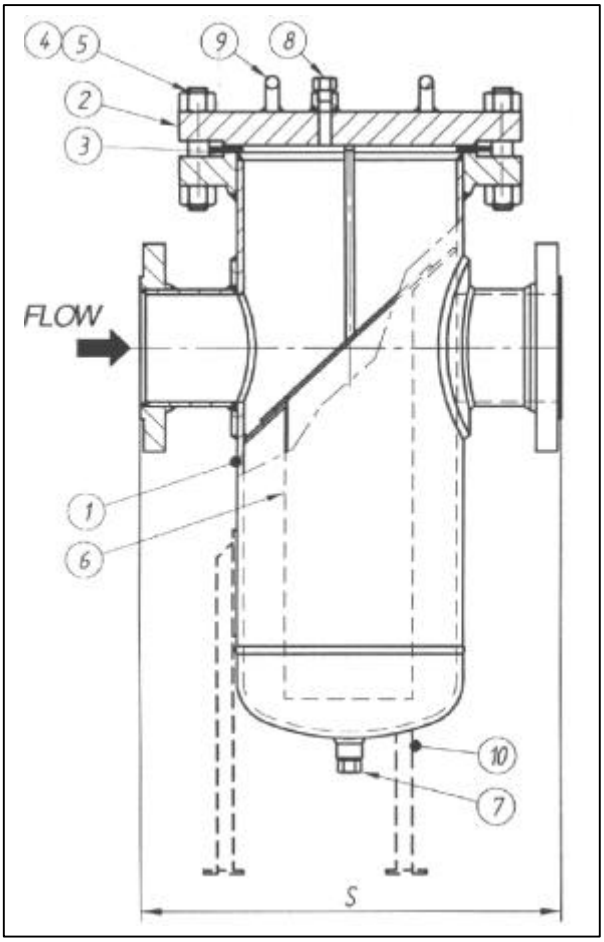
Standard features include low pressure drops at high velocities, stainless steel perforated baskets as standard, vents and drains with the possibility to supply davit lifts, quick open closures, DP gauges.

We are also able to manufacture against customer requests in all types of materials.

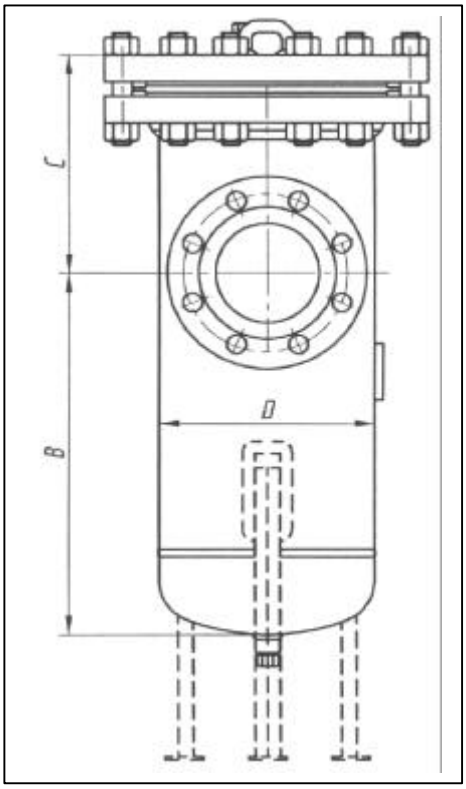


SIMPLEX FILTERS

MO 150



POS.	DESCRIPTION	MATERIALS	NOTE
1	Body	ASTM A106	
2	Cover	ASTM A105	
3	Gasket	316 / GRAPHITE	
4	Studs	ASTM A193 B7	
5	Nuts	ASTM A194 2H	
6	Screen	Stainless steel	
	Perf. Plate	Stainless steel	
	Mesh	Stainless steel	
7	Drain	ASTM A105	Screwed ¾" NPT
8	Vent	ASTM A105	Screwed ¾" NPT
9	Lifting eyes	CARBON STEEL	For cover only
10	Legs	CARBON STEEL	



Size (inches)	1½"	2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"
S (mm)	356	356	381	406	406	508	559	813	889	940	1067	1067	1092	1219
B (mm)	305	305	318	356	381	432	533	635	711	838	914	991	1118	1524
C (mm)	163	178	203	210	241	241	279	330	368	400	464	464	553	553
D (mm)	168	168	168	219	273	273	324	406	457	508	610	610	762	762
Kg	40.0	43.1	46.7	77.1	104.3	108.9	154.2	272.2	349.3	440.0	616.9	635.0	870.9	997.9

NOTES : Inlet / Outlet flanges are according to ANSI B16.5

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

SIMPLEX FILTERS

MO 300

SIMPLEX STRAINERS

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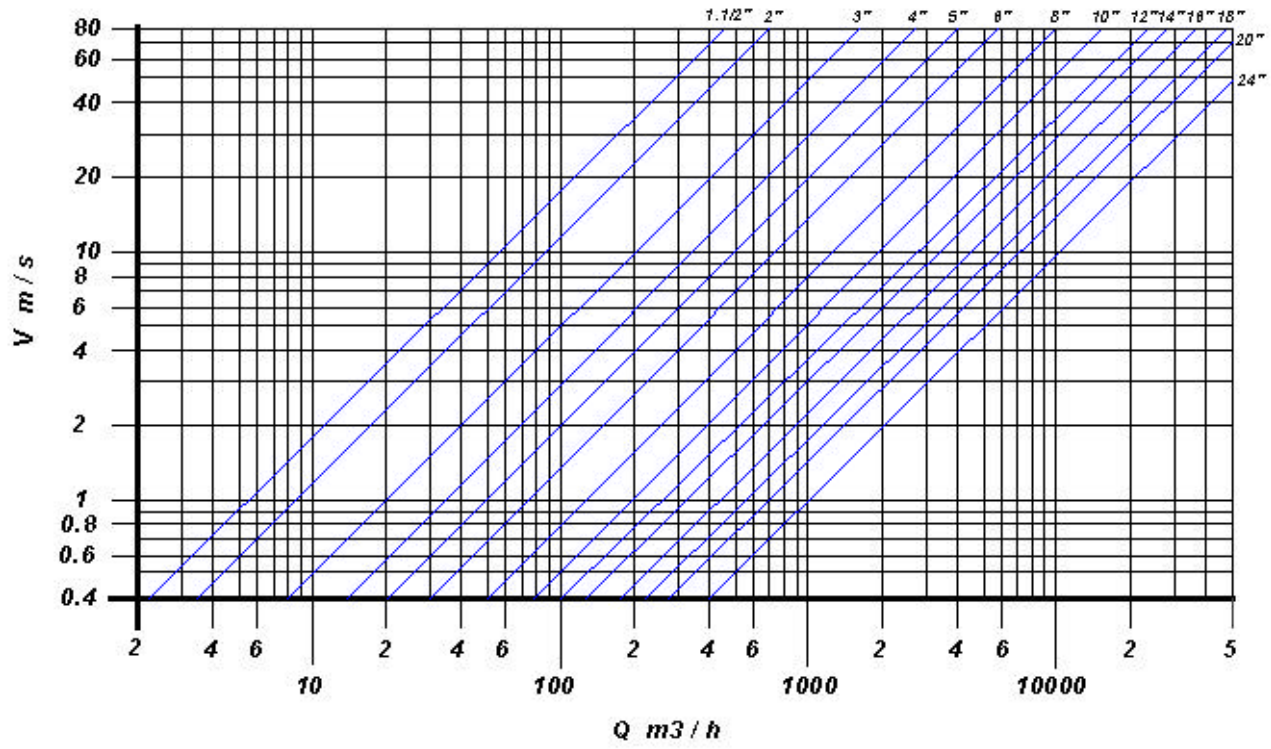
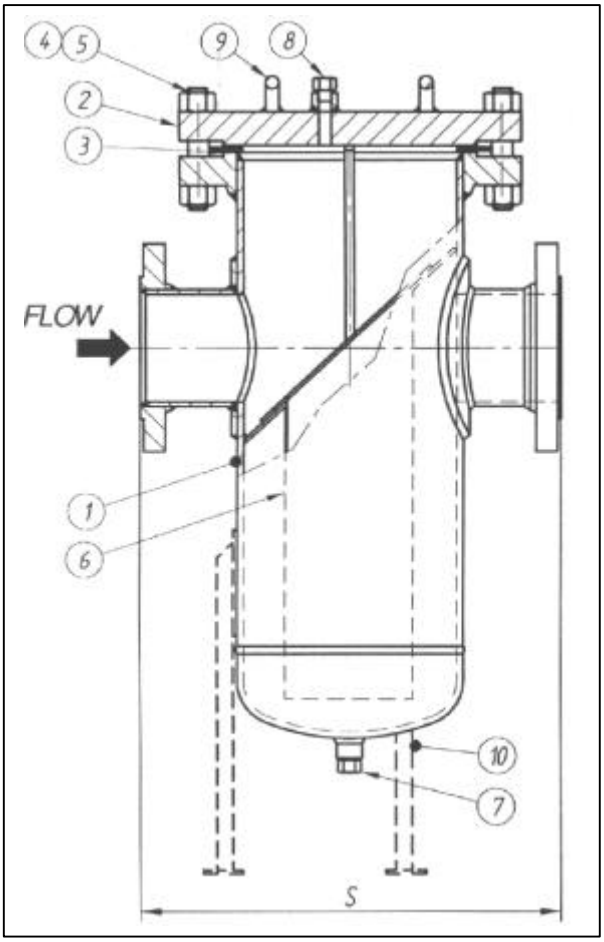
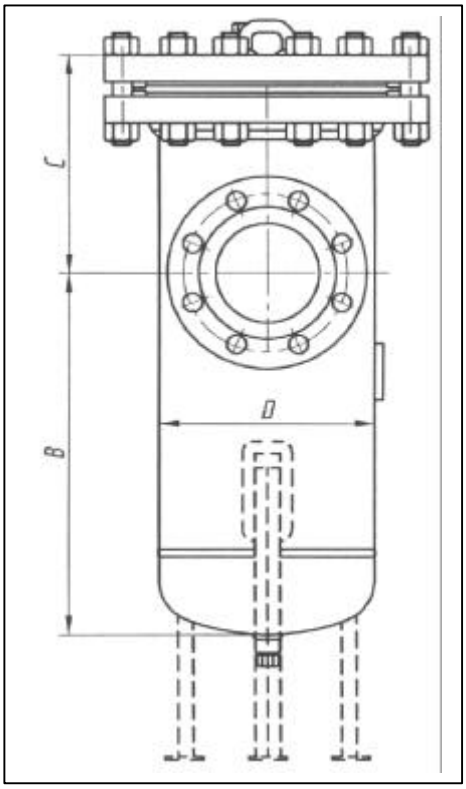


SIMPLEX FILTERS

MO 300



POS.	DESCRIPTION	MATERIALS	NOTE
1	Body	ASTM A106	
2	Cover	ASTM A105	
3	Gasket	316 / GRAPHITE	
4	Studs	ASTM A193 B7	
5	Nuts	ASTM A194 2H	
6	Screen	Stainless steel	
	Perf. Plate	Stainless steel	
	Mesh	Stainless steel	
7	Drain	ASTM A105	Screwed ¾" NPT
8	Vent	ASTM A105	Screwed ¾" NPT
9	Lifting eyes	CARBON STEEL	For cover only
10	Legs	CARBON STEEL	



Size (inches)	1½"	2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"
S (mm)	356	356	381	406	445	553	584	838	914	965	1092	1092	1130	1264
B (mm)	305	305	318	356	381	432	533	635	711	838	914	991	1118	1524
C (mm)	229	229	229	241	279	279	318	368	406	445	508	508	610	610
D (mm)	168	168	168	219	273	273	324	406	457	508	610	610	762	762
Kg	69.2	72.6	79.4	131.5	181.4	192.8	274.4	464.9	603.3	757.5	1059.1	1115.8	1537.7	1780.4

NOTES : Inlet / Outlet flanges are according to ANSI B16.5

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA

SPECIAL PRODUCTS

GO BACK

DOUGLAS ITALIA

SPECIAL PRODUCTS

- BASKET
- BRONZE PRODUCTS
- EXHAUST HEAD
- SAMPLE COOLERS
- SPECTACLE FLANGES
- STEAM SEPARETOR

GO BACK

DOUGLAS ITALIA S.P.A.

BASKETS

PRODUCTS

Douglas Italia manufacturers and supplies baskets for Tee Strainers against specific customer drawings in all sizes, materials and filtration requirements.

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

OFFICIAL WEB SITE: www.douglas-italia.com

DOUGLAS ITALIA S.P.A.

BRONZE / BRASS PRODUCTS

PRODUCTS

Douglas Italia manufacturers a range of sight flow indictors and strainers in brass / bronze for low pressure applications in water, oil and gas services.

PRODUCT RANGE

SIGHT FLOW INDICATORS

- *Type S158 – Single Glass (Plate) in Brass*
- *Type S159 – Single Glass (Dome) in Brass*
- *Type S160 – Single Glass (Plate)*
- *Type S161 – Double Glass*

ENDS: Screwed NPT / BSP

- *Type S163 – Double Glass (Plate)*

ENDS: Flanged RF PN16

Y STRAINERS

- *Type F16*

ENDS: Screwed NPT / BSP

- *Type F44*

ENDS: Flanged RF PN16

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

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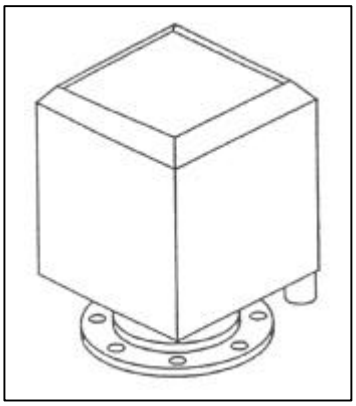
DOUGLAS ITALIA S.P.A.

EXHUAST HEADS
EX

DESCRIPTION

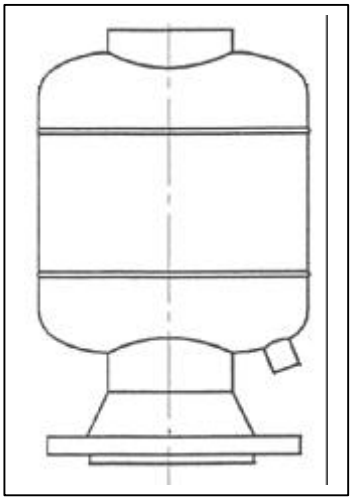


Douglas Italia exhaust heads have been designed for the safe discharging of dry steam at reduced velocity to atomsphere protecting people from injury and plant installations from material damage. Additionally, due to the large exhaust openings noise is reduced and back pressure is not produced.

Douglas Italia exhaust heads incorporate internal baffles which have been designed to ensure the efficient separation of entrained water from the steam , allowing it to then discharge through the drain connection located at the base.

Our exhaust heads are ideal for installation on condensate and blowdown vessels, boiler feed tanks, hot water storage tanks etc.

MAIN FEATURES



- *Robust, resistance design but lightweight*
- *Highly efficient separation characteristics*
- *Reduces noise*
- *Reduces velocity*
- *Available in various materials of construction from carbon steel , low carbon steel, stainless steel and upon request exotic steels to suit every application.*
- *Sizes from 2" upto 24" – Larger sizes on request*

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DOUGLAS ITALIA S.P.A.

SAMPLE COOLERS

DESCRIPTION

Douglas Italia manufacturers a wide variety of sample coolers in various materials of construction, with a choice of heat transfer area and shell deisgn to suit customer requirements.

Our sample coolers are most commonly used for applications in power plants and the petro-chem industry.

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

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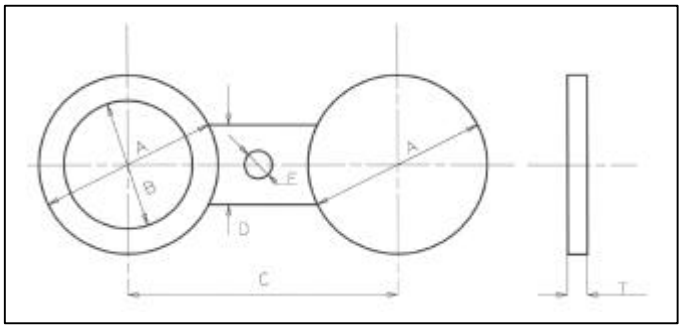
DOUGLAS ITALIA S.P.A.

SPECTACLE FLANGES

FOR 150 LB. – 300 LB. – 400 LB. – 600 LB. RAISED FACE AND FLAT FACE FLANGES



DIMENSION IN mm.

SIZE		SERIE 150 LB.					SERIE 300 LB.					
	B	A	C	F	D	T	B	A	C	F	D	T
1	SEE 300 LB DIMENSIONS	63.5	79	14.5	38	6.5	28.5	70	89	17.5	38	6.5
1¼		73	89	14.5	38	6.5	35	79.5	98	17.5	38	6.5
1½		82.5	98	14.5	38	6.5	41.5	92	114	22.5	50	6.5
2		101.5	121	17.5	50	6.5	54	108	127	17.5	50	6.5
2½		120.5	140	17.5	50	6.5	66.5	127	149	22.5	64	6.5
3		133.5	152	17.5	64	6.5	79.5	146	168	22.5	64	9.5
3½		159	178	17.5	64	6.5	92	162	184	22.5	64	9.5
4		171.5	191	17.5	64	6.5	108	178	200	22.5	64	12.5
5		193.5	216	22.5	76	9.5	133.5	212.5	235	22.5	76	12.5
6		219	241	22.5	76	9.5	159	247.5	270	22.5	76	16
8		276	298	22.5	76	12.5	209.5	305	330	25.5	90	19
10		336.5	362	25.5	102	16	260.5	359	387	28.5	102	25.5
12		406.5	432	25.5	102	22.5	305	419	451	32	102	28.5
14		441.5	476	32	108	25.5	336.5	476.5	514	32	120	32
16		505	540	32	108	25.5	387.5	530	572	38	125	36.5
18		540	578	35	115	25.5	438	587.5	629	38	115	41.5
20		597	635	35	120	28.5	489	645	686	38	120	44.5
24		708	750	38	140	35	590.5	765	813	44.5	140	54
26		762	806	35	108	51	641.5	822	876	44.5	108	73
30		870	915	35	108	54	743	940	997	47.5	108	85.5
34		978	1029	41.5	115	57	844.5	1044.5	1105	51	115	98.5
36		1035	1086	41.5	115	57	895.5	1105	1168	54	118	98.5

SIZE		SERIE 400 LB.					SERIE 600 LB.					
	B	A	C	F	D	T	B	A	C	F	D	T
1	SEE 600 LB DIMENSIONS	57	89	19	50	9.5	28.5	70	89	19	57	9.5
1¼		79.5	98	19	60	9.5	35	79.5	98	19	57	9.5
1½		92	114	22.5	67	9.5	41.5	92	114	22.5	67	9.5
2		108	127	19	57	9.5	54	108	127	19	57	9.5
2½		127	149	22.5	67	9.5	63.5	127	149	22.5	67	12.5
3		146	168	22.5	67	12.5	79.5	146	168	22.5	67	16
3½		159	184	22.5	67	12.5	92	159	184	25.5	76	16
4		174.5	200	25.5	76	16	105	190.5	216	25.5	76	16
5		209.5	235	25.5	76	16	130	238	267	28.5	85	22.5
6		244.5	270	25.5	76	19	155.5	263.5	292	28.5	85	25.5
8		301.5	330	28.5	85	22.5	203	317.5	349	32	95	32
10		355.5	387	32	95	28.5	257	390.5	432	35	105	38
12		416	451	35	105	38	305	454	489	35	105	44.5
14		479.5	514	35	105	41.5	336.5	489	527	38	115	51
16		533.5	572	38	115	47.5	387.5	562	603	41.5	125	57
18		590.5	629	38	115	57	438	609.5	654	44.5	134	63.5
20		644.5	686	41.5	125	57	489	679.5	734	44.5	134	70
24		765	813	47.5	143	70	590.5	787.5	838	51	153	82.5
26		819.5	876	47.5	111	85.5	641.5	851	915	51	115	101.5
30		930.5	997	54	118	98.5	743	959	1022	54	118	111
34		1041.5	1105	54	118	105	844.5	1060.5	1130	60.5	125	117.5
36		1105	1168	54	118	111	895.5	1117.5	1194	66.5	130	124

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

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DOUGLAS ITALIA S.P.A.

STEAM SEPARATOR
SS 300

DESCRIPTION

SS300 are baffle type separator , used for the removal of moisture from steam and compressed air pipelines.

The separator helps to eliminate downtime and costs associated with particulate damage in system equipment, separating the particles with a heavier specific gravity, such as water and oil droplets, moisture in suspension, dirt and scale. The SS300 separetor also help produce significant improvements in system efficiency.

The condensate collected at the bottom of the separator, must be automatically drained by a suitable steam or compressed air trap.

Connections available are screwed, sw or Flanged both Raised Face and RTJ upon request.

MAIN FEATURES

- *No moving parts*
- *To be used in steam and compressed air systems*
- *Available in various materials of construction from carbon steel , low carbon steel, stainless steel and upon request exotic steels to suit every application.*
- *Sizes from 1" upto 12" – Larger sizes on request*
- *Installation always with the condensate discharge pointing downwards.*

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

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DOUGLAS ITALIA

TECHNICAL DATA

GO BACK

DOUGLAS ITALIA S.P.A.

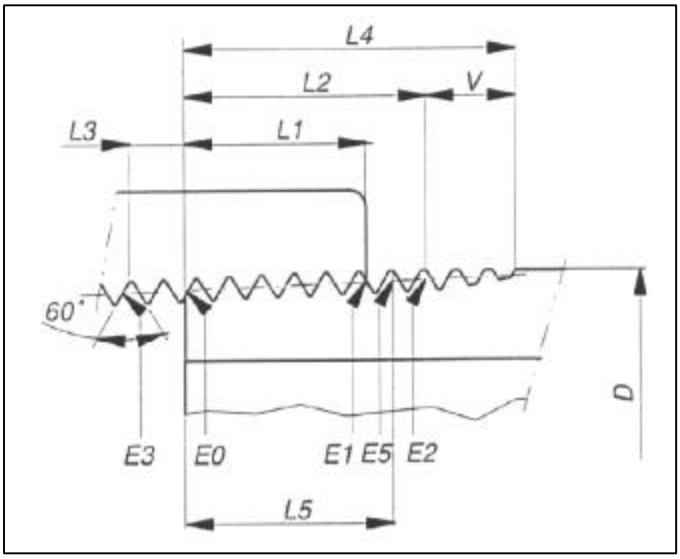
SATURED STEAM TABLE

PRESSURE bar	BOILING TEMPERATURE °C	SPECIFIC VOLUME (STEAM) m^3 / Kg	SPECIFIC WEIGHT (STEAM) Kg / m^3	TOTAL HEAT (STEAM ENTHALPY) Kca/ KG	SENSIBLE HEAT (WATER ENTHALPY) Kcal / Kg	LATENT HEAT (EVAPORATION) Kcal / Kg
0.10	45.45	14.95	0.06688	617.0	45.41	571.6
0.15	53.60	10.21	0.09791	620.0	53.54	567.0
0.20	59.67	7.795	0.1283	623.1	59.61	563.5
0.25	64.56	6.322	0.1582	625.1	64.49	560.6
0.30	68.68	5.328	0.1877	626.8	68.61	558.2
0.40	75.42	4.069	0.2458	629.5	75.36	554.1
0.45	78.27	3.642	0.2746	630.8	78.25	552.5
0.50	80.86	3.301	0.3029	631.6	80.81	550.8
0.55	83.24	3.018	0.3313	623.7	83.25	549.5
0.60	85.45	2.783	0.3594	633.4	85.41	548.0
0.65	87.51	2.581	0.3874	634.4	87.53	546.9
0.70	89.45	2.409	0.4152	634.9	89.43	545.5
0.75	91.27	2.258	0.4429	635.8	91.30	544.5
0.80	92.99	2.125	0.4705	636.2	92.99	543.2
0.85	94.62	2.008	0.4980	637.1	94.68	542.6
0.90	96.18	1.904	0.5253	637.4	96.19	541.2
0.95	97.66	1.810	0.5526	638.3	97.74	540.5
1	99.09	1.725	0.5797	638.5	99.12	539.4
1.5	110.79	1.180	0.8472	642.8	110.9	531.9
2	119.62	0.9016	1.109	645.8	119.8	525.9
2.5	126.79	0.7316	1.367	648.3	127.2	521.1
3	132.88	0.6166	1.622	650.3	133.4	516.9
3.5	138.19	0.5335	1.874	651.9	138.8	513.1
4	142.92	0.4706	2.125	653.4	143.6	509.8
4.5	147.20	0.4213	2.374	654.7	148.0	506.7
5	151.11	0.3816	2.621	655.8	152.1	503.7
5.5	154.71	0.3489	2.867	656.9	155.8	501.1
6	158.08	0.3213	3.112	657.8	159.3	498.6
6.5	161.15	0.2980	3.356	658.7	162.6	496.2
7	164.17	0.2778	3.600	659.4	165.6	493.8
7.5	166.96	0.2602	3.842	660.2	168.5	491.7
8	169.61	0.2448	4.085	660.8	171.3	489.5
8.5	172.11	0.2311	4.327	661.4	173.9	487.5
9	174.53	0.2189	4.568	662.0	176.4	485.6
9.5	176.82	0.2080	4.809	662.5	178.9	483.6
10	179.04	0.1981	5.049	663.0	181.2	481.8
11	183.20	0.1808	5.530	663.9	185.6	478.3
12	187.08	0.1664	6.010	664.7	189.7	475.0
13	190.71	0.1541	6.488	665.4	193.5	471.9
14	194.13	0.1435	6.967	666.0	197.1	468.9
15	197.36	0.1343	7.466	666.6	200.6	466.0
16	200.43	0.1262	7.926	667.1	203.9	463.2
17	203.35	0.1190	8.405	667.5	207.1	460.4
18	206.14	0.1126	8.886	667.9	210.1	457.8
19	208.81	0.1068	9.366	668.2	213.0	455.2
20	211.38	0.1016	9.846	668.5	215.8	452.7
21	213.85	0.0968	10.33	668.7	218.5	450.2
22	216.23	0.0925	10.81	668.9	221.2	447.7
23	218.53	0.08856	11.29	669.1	223.6	445.5
24	220.75	0.08492	11.78	669.3	226.1	443.2
25	222.90	0.08157	12.26	669.4	228.5	440.9
26	224.99	0.07846	12.75	669.5	230.8	438.7
27	227.02	0.07548	13.25	669.6	233.2	436.4
28	228.98	0.07288	13.72	669.7	235.2	434.5
29	230.90	0.07029	14.23	669.7	237.5	432.2
30	232.76	0.06802	14.70	669.7	239.5	430.2
32	236.35	0.06868	15.70	669.3	243.7	425.6
34	239.77	0.05990	16.69	669.3	247.6	421.7
36	243.04	0.05653	17.69	669.3	251.3	418.0
38	246.17	0.05353	18.68	669.3	254.8	414.5
40	249.18	0.05078	19.69	669.0	258.2	410.8
42	252.07	0.04827	20.72	668.7	261.7	407.0
44	254.87	0.04600	21.74	668.5	265.0	403.5
46	257.56	0.04392	22.77	668.2	268.2	400.0
48	260.17	0.04201	23.80	667.9	271.3	396.6
50	262.70	0.04024	24.85	667.3	274.2	393.1
55	268.89	0.03636	27.50	666.2	281.4	384.8
60	274.29	0.03310	30.21	665.0	288.4	376.6
65	279.54	0.03033	32.97	663.6	294.8	368.8
70	284.48	0.02795	35.78	662.1	300.9	361.2
75	289.17	0.02587	38.66	660.5	307.0	353.5
80	293.62	0.02404	41.60	658.9	312.6	346.3
85	297.80	0.02241	44.62	657.0	318.2	338.8
90	301.92	0.02096	47.71	655.1	323.6	331.5
95	305.80	0.01964	50.91	653.2	328.8	324.4
100	309.53	0.01845	54.21	651.1	334.0	317.1
110	316.58	0.01637	61.08	646.1	344.0	302.7
120	323.15	0.01462	68.42	641.9	353.9	288.0

DOUGLAS ITALIA S.P.A.

NPT – BSP - SW

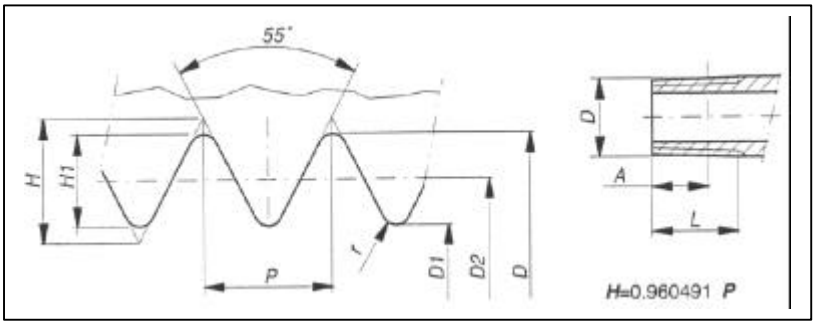
NPT (ANSI B1.20.1)



D *O.D of pipe*
n *Threads / mm.*
P *Pitch of thread*
E0 *Pitch diam. at beginning of external thread*
L1 *Length of handtight engagement*
E1 *Diam. of handtight engagement*
L2 *Length of effective thread , external*
E2 *Diam. of effective thread , external*
L3 *Length of wrench makeup , internal*
E3 *Diam. of wrench makeup , internal*
V *Vanish thread*
L4 *Overall length external thread*
L5 *Length of nominal complete external threads*
E5 *Diam. of nominal complete external threads*
h *Height of thread*
Thread taper angle 1° 47'

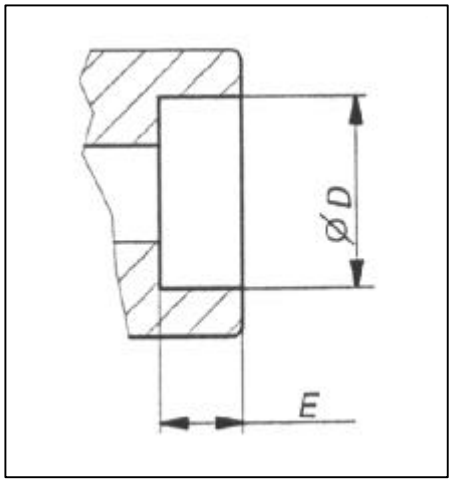
SIZE	D	n	P	E0	L1	E1	L2	E2	L3	E3	V	L4	L5	E5	h
¼"	13.72	0.71	1.41	12.13	5.79	12.49	10.21	12.76	4.23	11.86	4.90	15.10	7.38	12.59	1.13
3/8"	17.15	0.71	1.41	15.55	6.10	15.93	10.36	16.19	4.23	15.28	4.90	15.26	7.54	16.02	1.13
½"	21.34	0.55	1.81	19.26	8.13	19.77	13.56	20.11	5.44	18.92	6.29	19.85	9.93	19.88	1.45
¾"	26.67	0.55	1.81	24.58	8.61	25.12	13.86	25.45	5.44	24.24	6.29	20.15	10.23	25.22	1.45
1"	33.40	0.45	2.21	30.83	10.16	31.46	17.34	31.91	6.63	30.41	7.66	25.01	12.93	31.63	1.77
1¼"	42.16	0.45	2.21	39.55	10.67	40.22	17.95	40.67	6.63	39.14	7.66	25.63	13.54	40.40	1.77
1½"	48.26	0.45	2.21	45.62	10.67	46.29	18.38	46.77	6.63	45.21	7.66	26.04	13.96	46.49	1.77
2"	60.33	0.45	2.21	57.63	11.07	58.33	19.22	58.83	6.63	57.22	7.66	26.88	14.80	58.56	1.77
Dimensions are in (mm)															

BSP (BS 21)



SIZE	D	A	P	z	D2	D1	H1	r	l
¼"	13.157	6.0	1.337	19	12.301	11.445	0.856	0.184	9.7
3/8"	16.662	6.4	1.337	19	15.806	14.950	0.856	0.184	10.1
½"	20.955	8.2	1.814	14	19.793	18.631	1.162	0.249	13.2
¾"	26.441	9.5	1.814	14	25.279	24.117	1.162	0.249	14.5
1"	33.249	10.4	2.309	11	31.770	30.291	1.479	0.317	16.8
1¼"	41.910	12.7	2.309	11	40.431	38.952	1.479	0.317	19.1
1½"	47.803	12.7	2.309	11	46.324	44.845	1.479	0.317	19.1
2"	59.614	15.9	2.309	11	58.135	56.656	1.479	0.317	23.4
Dimensions are in (mm)									

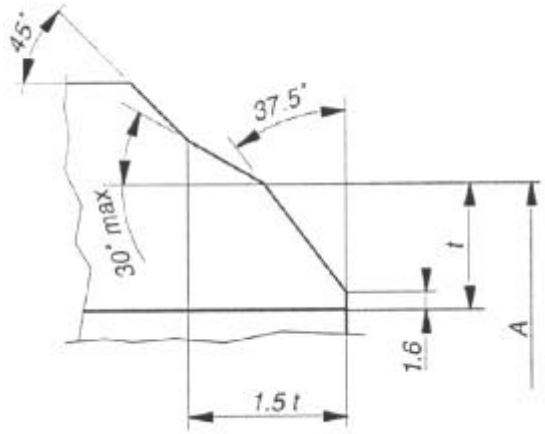
SW (ANSI 16.11)



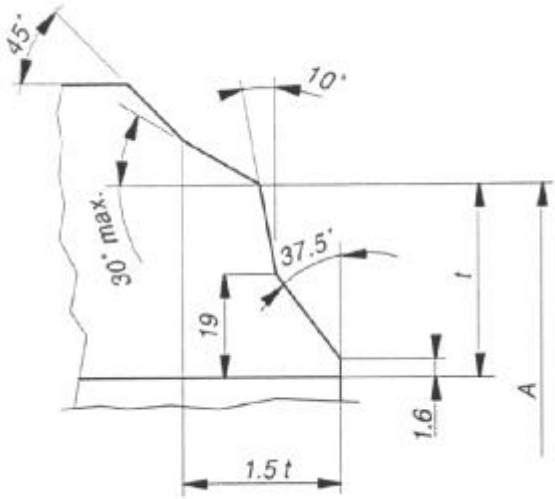
SIZE	D min.	D max.	E min.
¼"	14.10	14.60	10
3/8"	17.55	18.05	10
½"	21.70	22.20	10
¾"	27.05	27.55	13
1"	33.80	34.30	13
1¼"	42.55	43.05	13
1½"	48.65	49.15	13
2"	61.10	61.10	16
Dimensions are in (mm)			

DOUGLAS ITALIA S.P.A.

BW DIMENSIONS (ANSI B 16.25)



FOR CONNECTIONS TO PIPES OF WALL THICKNESS UP TO 19 mm



FOR CONNECTIONS TO PIPES OF WALL THICKNESS GREATER THAN 19 mm

SIZE (inches)	A	t (pipe thickness)														
		SCH. STD	SCH. XS	SCH. XXS	SCH. 10	SCH. 20	SCH. 30	SCH. 40	SCH. 60	SCH. 80	SCH. 100	SCH. 120	SCH. 140	SCH. 160	SCH. 5S	SCH. 10S
½"	21.3	2.77	3.73	7.47	-	-	-	2.77	-	3.73	-	-	-	4.78	1.65	2.11
¾"	26.7	2.87	3.91	7.82	-	-	-	2.87	-	3.91	-	-	-	5.56	1.65	2.11
1"	33.4	3.38	4.55	9.09	-	-	-	3.38	-	4.55	-	-	-	6.35	1.65	2.77
1¼"	42.2	3.56	4.85	9.70	-	-	-	3.56	-	4.85	-	-	-	6.35	1.65	2.77
1½"	48.3	3.68	5.08	10.16	-	-	-	3.68	-	5.08	-	-	-	7.14	1.65	2.77
2"	60.3	3.91	5.54	11.07	-	-	-	3.91	-	5.54	-	-	-	8.74	1.65	2.77
2½"	73.0	5.16	7.01	14.02	-	-	-	5.16	-	7.01	-	-	-	9.52	2.11	3.05
3"	88.9	5.49	7.62	15.24	-	-	-	5.49	-	7.62	-	-	-	11.13	2.11	3.05
4"	114.3	6.02	8.56	17.12	-	-	-	6.02	-	8.56	-	11.13	-	13.49	2.11	3.05
6"	168.3	7.11	10.97	21.95	-	-	-	7.11	-	10.97	-	14.27	-	18.26	2.77	3.40
8"	219.1	8.18	12.70	22.22	-	6.35	7.04	8.18	10.31	12.70	15.09	18.26	20.62	23.01	2.77	3.76
10"	273.0	9.27	12.70	25.40	-	6.35	7.80	9.27	12.70	15.09	18.26	21.44	25.40	28.58	3.40	4.19
12"	323.9	9.52	12.70	25.40	-	6.35	8.38	10.31	14.27	17.48	21.44	25.40	28.58	33.32	3.96	4.57
14"	355.6	9.52	12.70	-	6.35	7.92	9.52	11.13	15.09	19.05	23.83	27.79	31.75	35.71	3.96	4.78
16"	406.4	9.52	12.70	-	6.35	7.92	9.52	12.70	16.66	21.44	26.19	30.96	36.53	40.49	4.19	4.78
18"	457.2	9.52	12.70	-	6.35	7.92	11.13	14.27	19.05	23.83	29.36	34.92	39.67	45.24	4.19	4.78
20"	508.0	9.52	12.70	-	6.35	9.52	12.70	15.09	20.62	26.19	32.54	38.10	44.45	50.01	4.78	5.54
24"	609.6	9.52	12.70	-	6.35	9.52	14.27	17.48	26.61	30.96	38.89	46.02	52.37	59.54	5.54	6.35

Dimension : A , t are in millimeters (mm)

DOUGLAS ITALIA S.P.A.

PRESSURE-TEMPERATURE RATINGS to ANSI B 16.34

A 105 – A 216 WCB – A 350 LF2

°C	Working pressure (bar) by classes						
	150	300	600	800	900	1500	2500
-29 , 38	19.7	51.0	102.0	136.2	153.1	255.5	425.4
93	17.9	46.5	93.1	124.1	139.6	232.7	387.8
149	15.9	45.2	90.7	120.7	135.8	226.1	377.1
204	13.8	43.8	87.6	116.5	131.0	218.6	364.0
260	11.7	41.4	82.7	110.0	123.8	206.5	344.0
316	9.7	37.9	75.5	100.7	113.1	188.6	314.4
343	8.6	36.9	74.1	98.6	111.0	185.1	308.5
371	7.6	36.9	73.4	97.9	110.3	183.7	306.1
399	6.6	34.8	69.6	92.7	104.1	173.7	289.6
427	5.5	28.3	56.9	75.8	85.2	142.0	236.5
454	4.5	18.6	36.9	49.3	55.5	92.4	153.8
482	3.4	11.7	23.8	31.7	35.5	59.3	98.6
510	2.4	7.2	14.1	19.0	21.4	35.5	59.3
538	1.4	3.4	7.2	9.6	10.7	17.9	29.6
566	-	-	-	-	-	-	-
593	-	-	-	-	-	-	-
621	-	-	-	-	-	-	-
649	-	-	-	-	-	-	-
677	-	-	-	-	-	-	-
704	-	-	-	-	-	-	-
732	-	-	-	-	-	-	-
760	-	-	-	-	-	-	-
788	-	-	-	-	-	-	-
816	-	-	-	-	-	-	-

A 105 , A 216 WCB : permissible ,but not recommended for prolonged usage above about 454°C
A 350 LF2 : not be used over 343°C

A 182 F1 – A 217 WC1 – A 352 LC1

°C	Working pressure (bar) by classes						
	150	300	600	800	900	1500	2500
-29 , 38	18.3	47.9	95.8	-	143.8	239.2	398.9
93	17.9	46.9	93.8	-	140.3	234.1	390.2
149	15.9	45.2	90.0	-	134.8	224.8	374.7
204	13.8	44.1	88.3	-	132.4	220.6	367.5
260	11.7	42.7	85.8	-	128.6	214.1	357.1
316	9.7	41.7	83.4	-	125.1	208.6	347.5
343	8.6	40.7	81.0	-	121.7	202.7	338.2
371	7.6	39.3	78.3	-	117.6	195.8	326.1
399	6.6	36.5	73.4	-	110.0	183.4	305.4
427	5.5	35.2	70.0	-	105.1	175.1	291.6
454	4.5	33.4	67.2	-	100.7	167.9	279.9
482	3.4	31.0	62.1	-	93.1	154.8	258.2
510	2.4	19.3	38.6	-	58.3	96.9	161.7
538	1.4	11.4	22.8	-	34.1	56.9	94.5
566	-	-	-	-	-	-	-
593	-	-	-	-	-	-	-
621	-	-	-	-	-	-	-
649	-	-	-	-	-	-	-
677	-	-	-	-	-	-	-
704	-	-	-	-	-	-	-
732	-	-	-	-	-	-	-
760	-	-	-	-	-	-	-
788	-	-	-	-	-	-	-
816	-	-	-	-	-	-	-

A 182 F1 , A 217 WCB : permissible ,but not recommended for prolonged usage above about 454°C
A 351 LC1 : not be used over 343°C

DOUGLAS ITALIA S.P.A.

PRESSURE-TEMPERATURE RATINGS to ANSI B 16.34

A 182 F11 – A 217 WC6

°C	Working pressure (bar) by classes						
	150	300	600	800	900	1500	2500
-29 , 38	20.0	51.7	103.4	137.9	155.1	258.6	430.9
93	17.9	49.0	98.3	131.0	147.2	245.5	408.9
149	15.9	46.5	92.7	123.8	139.3	232.0	386.5
204	13.8	45.5	90.7	121.0	136.2	226.8	378.2
260	11.7	44.1	88.6	117.9	132.7	221.3	368.9
316	9.7	41.7	83.4	111.4	125.1	208.6	347.5
343	8.6	40.7	81.0	108.2	121.7	202.7	338.2
371	7.6	39.3	78.3	104.5	117.6	195.8	326.1
399	6.6	36.5	73.4	97.9	110.0	183.4	305.4
427	5.5	35.2	70.0	93.4	105.1	175.1	291.6
454	4.5	33.4	67.2	89.6	100.7	167.9	279.9
482	3.4	31.0	62.1	82.7	93.1	154.8	258.2
510	2.4	26.2	52.1	69.3	77.9	130.0	216.8
538	1.4	15.5	30.7	41.0	46.2	76.9	128.2
566	1.4	9.7	19.0	25.2	28.3	47.2	78.9
593	1.4	6.6	13.1	17.6	20.0	33.1	55.2
621	1.4	3.4	7.2	9.6	10.7	17.9	29.6
649	1.0	2.4	4.8	6.5	7.2	11.7	19.7
677	-	-	-	-	-	-	-
704	-	-	-	-	-	-	-
732	-	-	-	-	-	-	-
760	-	-	-	-	-	-	-
788	-	-	-	-	-	-	-
816	-	-	-	-	-	-	-

A 182 F11 : permissible ,but not recommended for prolonged usage above about 593°C
A 217 WC6 : not be used over 593°C

A 182 F22 – A 217 WC9

°C	Working pressure (bar) by classes						
	150	300	600	800	900	1500	2500
-29 , 38	20.0	51.7	103.4	137.9	155.1	258.6	430.9
93	17.9	49.3	98.6	131.7	148.2	24.8	411.3
149	15.9	46.5	93.4	124.5	140.0	233.4	388.9
204	13.8	44.8	89.3	119.3	134.1	223.4	372.3
260	11.7	44.1	88.3	117.6	132.4	220.6	367.5
316	9.7	41.7	83.4	111.4	125.1	208.6	347.5
343	8.6	40.7	81.0	108.2	121.7	202.7	338.2
371	7.6	39.3	78.3	104.5	117.6	195.8	326.1
399	6.6	36.5	73.4	97.9	110.0	183.4	305.4
427	5.5	35.2	70.0	93.4	105.1	175.1	291.6
454	4.5	33.4	67.2	89.6	100.7	167.9	279.9
482	3.4	31.0	62.1	82.7	93.1	154.8	258.2
510	2.4	26.2	52.1	69.3	77.9	130.0	216.8
538	1.4	18.6	36.9	49.3	55.5	92.4	153.8
566	1.4	13.8	27.6	36.5	41.0	68.6	114.5
593	1.4	7.9	15.5	20.7	23.4	39.0	65.2
621	1.4	7.2	14.1	19.0	21.4	35.5	59.3
649	1.4	3.8	7.6	10.0	11.4	19.0	31.7
677	-	-	-	-	-	-	-
704	-	-	-	-	-	-	-
732	-	-	-	-	-	-	-
760	-	-	-	-	-	-	-
788	-	-	-	-	-	-	-
816	-	-	-	-	-	-	-

A 182 F22 : permissible ,but not recommended for prolonged usage above about 593°C
A 217 WC9 : not be used over 593°C

DOUGLAS ITALIA S.P.A.

PRESSURE-TEMPERATURE RATINGS to ANSI B 16.34

A 182 F 304 – A 351 CF8 – A 351 CF3

°C	Working pressure (bar) by classes						
	150	300	600	800	900	1500	2500
-29 ¸ 38	19.0	49.6	99.3	132.4	148.9	248.2	413.7
93	16.2	41.4	82.7	110.3	124.1	206.8	344.7
149	14.1	36.5	72.7	97.2	109.3	182.0	303.4
204	12.4	32.4	64.8	86.5	97.2	162.0	270.3
260	11.7	30.0	60.3	80.3	90.3	150.7	251.0
316	9.7	28.6	57.2	76.2	85.8	143.1	238.6
343	8.6	28.3	56.2	75.2	84.5	140.7	234.4
371	7.6	27.9	55.5	74.1	83.4	138.9	231.7
399	6.6	27.6	54.8	73.1	82.4	137.2	228.9
427	5.5	27.2	54.5	72.4	81.4	135.8	226.1
454	4.5	26.9	53.8	71.4	80.3	134.1	223.4
482	3.4	26.5	53.1	70.7	79.3	132.4	220.6
510	2.4	25.9	51.7	68.9	77.6	128.9	215.1
538	1.4	22.4	44.5	59.3	66.5	111.0	185.1
566	1.4	21.4	42.7	56.9	63.8	106.5	177.2
593	1.4	17.9	35.5	47.2	53.1	88.6	147.9
621	1.4	13.4	26.9	35.8	40.3	67.6	112.4
649	1.4	10.7	21.4	28.6	32.1	53.1	88.6
677	1.4	7.6	15.2	20.3	22.8	37.9	63.1
704	1.4	5.9	11.4	15.0	16.9	28.3	47.2
732	1.4	4.1	8.6	11.4	12.8	21.4	35.5
760	1.4	3.4	6.6	9.0	10.0	16.5	27.6
788	1.0	2.4	4.8	6.6	7.2	11.7	19.7
816	0.7	1.7	3.4	4.5	4.8	8.3	13.8

For welding end. Flanged end ratings terminate at 538°C
A 351 CF3 : not to be used over 425°C

A 182 F316 – A 351 CF8M – A 351 CF3M

°C	Working pressure (bar) by classes						
	150	300	600	800	900	1500	2500
-29 ¸ 38	19.0	49.6	99.3	132.4	148.9	248.2	413.7
93	16.5	42.7	85.5	114.1	128.2	213.4	355.8
149	14.8	38.6	77.2	103.1	115.8	192.7	321.3
204	13.4	35.5	71.0	94.5	106.2	177.2	295.1
260	11.7	33.1	65.8	87.9	98.9	164.8	274.4
316	9.7	31.0	62.4	83.1	93.4	155.5	259.2
343	8.6	30.7	61.4	81.7	91.7	153.1	255.1
371	7.6	29.6	59.6	79.3	89.3	148.9	248.2
399	6.6	29.3	58.3	77.9	87.6	145.5	242.7
427	5.5	28.6	57.2	76.2	85.8	143.1	238.6
454	4.5	27.9	55.8	74.5	83.8	140.0	233.0
482	3.4	27.2	54.5	72.4	81.4	135.8	226.1
510	2.4	26.5	53.4	71.0	80.0	133.1	222.0
538	1.4	25.2	50.0	66.9	75.2	125.5	208.9
566	1.4	24.8	49.6	66.2	74.5	124.1	206.8
593	1.4	22.4	44.5	59.3	66.5	111.0	185.1
621	1.4	19.0	37.9	50.7	56.9	94.5	157.5
649	1.4	14.1	28.3	37.9	42.7	71.0	118.2
677	1.4	12.4	25.2	33.4	37.6	62.7	104.5
704	1.4	9.7	19.0	25.2	28.3	47.2	78.9
732	1.4	7.2	14.1	19.0	21.4	35.5	59.3
760	1.4	5.2	10.3	13.8	15.5	26.2	43.4
788	1.4	4.1	7.9	10.7	12.1	20.0	33.4
816	1.0	2.8	5.9	7.6	8.6	14.1	23.8

For welding end. Flanged end ratings terminate at 538°C
A 351 CF3M : not to be used over 454°C

DOUGLAS ITALIA S.P.A.

PRESSURE-TEMPERATURE RATINGS to ANSI B 16.34

A 182 F 304L – A 182 F 316L

°C	Working pressure (bar) by classes						
	150	300	600	800	900	1500	2500
-29 , 38	15.9	41.4	82.7	110.3	124.1	206.8	344.7
93	13.4	34.8	70.0	93.1	104.8	174.4	291.0
149	12.1	31.4	62.7	83.4	93.8	156.5	260.6
204	11.0	28.6	56.9	75.8	85.5	142.4	237.2
260	10.0	26.2	52.7	70.3	78.9	131.7	219.3
316	9.7	24.8	49.6	66.2	74.5	124.1	206.8
343	8.6	24.1	48.3	64.5	72.4	120.7	201.3
371	7.6	23.8	47.2	63.1	71.0	118.2	197.2
399	6.6	23.1	46.2	61.7	69.6	115.8	193.1
427	5.5	22.8	45.5	60.3	67.9	113.4	188.9
454	4.5	22.1	44.5	59.3	66.5	111.0	184.8
482	-	-	-	-	-	-	-
510	-	-	-	-	-	-	-
538	-	-	-	-	-	-	-
566	-	-	-	-	-	-	-
593	-	-	-	-	-	-	-
621	-	-	-	-	-	-	-
649	-	-	-	-	-	-	-
677	-	-	-	-	-	-	-
704	-	-	-	-	-	-	-
732	-	-	-	-	-	-	-
760	-	-	-	-	-	-	-
788	-	-	-	-	-	-	-
816	-	-	-	-	-	-	-

A 182 F9 – A 217 C12

°C	Working pressure (bar) by classes						
	150	300	600	800	900	1500	2500
-29 , 38	20.0	51.7	103.4	137.9	155.1	258.6	430.9
93	17.9	51.7	103.4	137.9	155.1	258.6	430.9
149	15.9	50.3	100.3	133.8	150.7	251.0	418.5
204	13.8	48.6	97.2	129.6	145.8	243.4	405.4
260	11.7	45.9	91.7	122.4	137.6	229.3	382.0
316	9.7	41.7	83.4	111.4	125.1	208.6	347.5
343	8.6	40.7	81.0	108.2	121.7	202.7	338.2
371	7.6	39.3	78.3	104.5	117.6	195.8	326.1
399	6.6	36.5	73.4	97.9	110.0	183.4	305.4
427	5.5	35.2	70.0	93.4	105.1	175.1	291.6
454	4.5	33.4	67.2	89.6	100.7	167.9	279.9
482	3.4	31.0	62.1	82.7	93.1	154.8	258.2
510	2.4	25.5	51.0	67.9	76.5	127.6	212.7
538	1.4	20.0	40.3	53.8	60.3	100.7	167.5
566	1.4	13.1	26.2	34.8	39.0	65.2	108.2
593	1.4	7.9	15.5	20.7	23.4	39.0	65.2
621	1.4	5.2	10.3	13.8	15.5	26.2	43.4
649	1.4	3.4	7.2	9.7	10.7	17.9	29.6
677	-	-	-	-	-	-	-
704	-	-	-	-	-	-	-
732	-	-	-	-	-	-	-
760	-	-	-	-	-	-	-
788	-	-	-	-	-	-	-
816	-	-	-	-	-	-	-

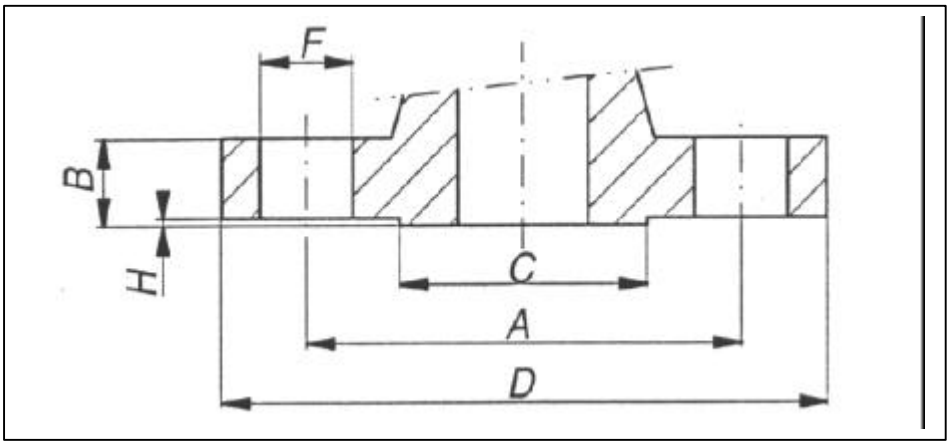
For welding end. Flanged end ratings terminate at 538°C

DOUGLAS ITALIA S.P.A.

PRESSURE-TEMPERATURE RATINGS to DIN 2401

°C	Working pressure (bar) by classes													
	GG20 GGG40			GG20 GG40	GSC25	GG40	GSC25							
	PN2.5	PN6	PN10	PN16		PN25		PN40	PN64	PN100	PN160	PN250	PN320	PN400
20¸100	2.5	6	10	16	16	25	25	40	64	100	160	250	320	400
200	2	5.	8	13	14	20	22	35	50	80	130	200	250	320
250	1.8	4.5	7	11	13	18	20	32	45	70	112	175	225	280
300	1.5	3.6	6	10	11	16	17	28	40	60	96	150	192	240
350					10		16	24	36	56	90	140	180	225
400					8		13	21	32	50	80	125	160	200

FLANGE DIMENSION



ANSI 150							
SIZE	D	B	C	H	n°	F	A
½"	89	11.1	34.9	1.6	4	16	60.3
¾"	98.5	12.7	42.9	1.6	4	16	69.9
1"	108	14.3	50.8	1.6	4	16	79.4
1¼"	117.5	15.9	63.5	1.6	4	16	88.9
1½"	127	17.5	73	1.6	4	16	98.4
2"	152.5	19.1	92.1	1.6	4	16	120.7

DIN PN 16							
SIZE	D	B	C	H	n°	F	A
½"	95	14	45	2	4	14	65
¾"	105	16	58	2	4	14	75
1"	115	16	68	2	4	14	85
1¼"	140	16	78	2	4	18	100
1½"	150	16	88	3	4	18	110
2"	165	18	102	3	4	18	125

ANSI 300							
SIZE	D	B	C	H	n°	F	A
½"	95.5	14.3	34.9	1.6	4	16	66.7
¾"	117.5	15.9	42.9	1.6	4	19	82.5
1"	124	17.5	50.8	1.6	4	19	88.9
1¼"	133.5	19	63.5	1.6	4	19	98.4
1½"	155.5	20.7	73	1.6	4	22.5	114.3
2"	165	22.2	92.1	1.6	8	19	127

DIN PN 25 – 40							
SIZE	D	B	C	H	n°	F	A
½"	95	16	45	2	4	14	65
¾"	105	18	58	2	4	14	75
1"	115	18	68	2	4	14	85
1¼"	140	18	78	2	4	18	100
1½"	150	18	88	3	4	18	110
2"	165	20	102	3	4	18	125

ANSI 600							
SIZE	D	B	C	H	n°	F	A
½"	95.5	20.65	34.9	6.35	4	16	66.7
¾"	117.5	22.25	42.9	6.35	4	19	82.5
1"	124	23.85	50.8	6.35	4	19	88.9
1¼"	133.5	26.95	63.5	6.35	4	19	98.4
1½"	155.5	28.55	73	6.35	4	22.5	114.3
2"	165	31.75	92.1	6.35	8	19	127

DIN PN 64							
SIZE	D	B	C	H	n°	F	A
½"	105	20	45	2	4	14	75
¾"	130	22	58	2	4	18	90
1"	140	24	65	2	4	18	100
1¼"	155	24	75	2	4	22	110
1½"	170	26	85	3	4	22	125
2"	180	26	95	3	4	22	135

ANSI 900 – 1500							
SIZE	D	B	C	H	n°	F	A
½"	120.5	28.55	34.9	6.35	4	22.5	82.5
¾"	130	31.75	42.9	6.35	4	22.5	88.9
1"	149.5	34.95	50.8	6.35	4	25.5	101.6
1¼"	159	34.95	63.5	6.35	4	25.5	111.1
1½"	178	38.15	73	6.35	4	28.5	123.8
2"	216	44.45	92.1	6.35	8	25.5	165.1

DIN PN 100							
SIZE	D	B	C	H	n°	F	A
½"	105	20	45	2	4	14	75
¾"	130	22	58	2	4	18	90
1"	140	24	65	2	4	18	100
1¼"	155	24	75	2	4	22	110
1½"	170	26	85	3	4	22	125
2"	195	28	95	3	4	25	145

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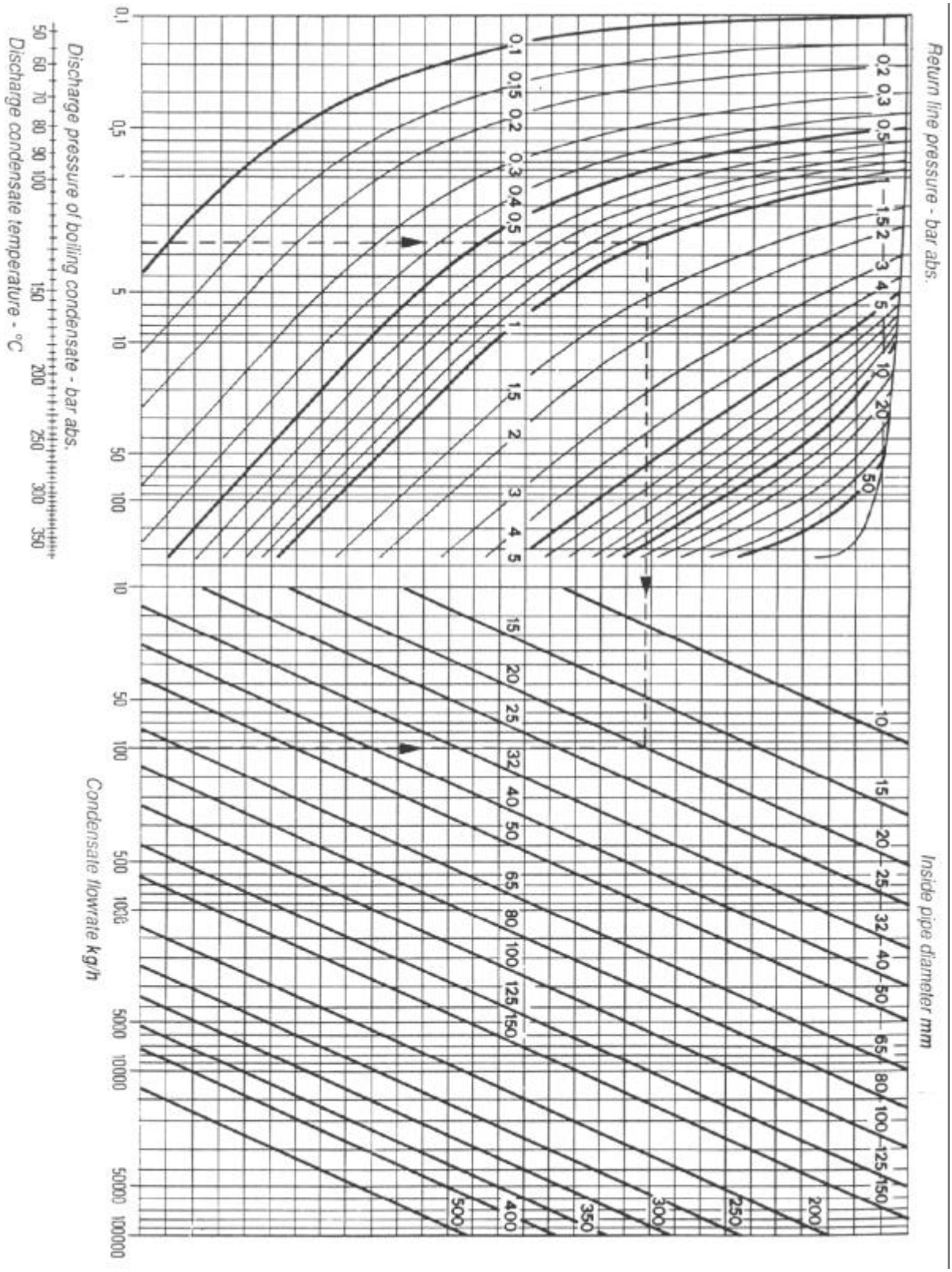
CHART FOR SIZING THE RETURN CONDENSATE LINES



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