



3A.331-E
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DT101F and DT102F Thermodynamic steam traps

Description

Series DT101F and DT102F thermodynamic steam traps are manufactured with carbon steel or alloy steel body and cover; internal components are made from stainless steel. They are equipped with an internal maintainable strainer and are suitable for use with high pressure and high temperature steam.

DT101F and DT102F traps can operate on plants with back pressure up to 50% of the inlet pressure.

Standards

These steam traps comply with the requirements of the European Pressure Equipment Directive 2014/68/EU.

Certification

The product is available with material certification to EN 10204 2.2 or EN 10204 3.1.

Note: Certification and any tests must be specified at the time of order.



Available types

DT101F with carbon steel body and cover

DT102F with alloy steel body and cover

Each type is available in three different executions with differentiated internal mechanism (type A, B, C) and sized in accordance to the discharge capacity requirements.

Pipe connections

- Socket weld ends ANSI B16.11 SW (standard)
- Butt weld ends ANSI B16.25 BW (standard)
- Screwed ANSI B1.20.1 NPT (API) (standard)
- Flanged UNI - DIN PN 100, 160 (on demand)
- Flanged ANSI B 16.5 class 300, 600, 900 and 1500 RF (on demand)

Nominal sizes

DN ½", ¾", 1"
 DN 15, 20, 25

Limiting conditions (ISO 6552)

Body design conditions		ANSI 900
PMA - Maximum allowable pressure	@ 20°C	155 bar g
TMA - Maximum allowable temperature	DT101F @ 105 bar g	425°C
	DT102F @ 48 bar g	560°C
Minimum allowable temperature		-10°C
PMO - Maximum operating suggested pressure		100 bar g*
TMO - Maximum operating temperature	DT101F	425°C
	DT102F	510°C
Maximum operating back pressure as percentage of upstream pressure		50%
Minimum differential pressure for satisfactory performance		8 bar g
Designed for a maximum cold hydraulic test pressure of		232 bar g

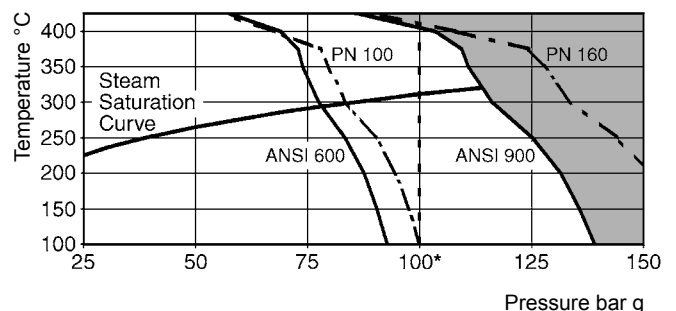
These values can be limited by the rating of the flanges installed.

Materials

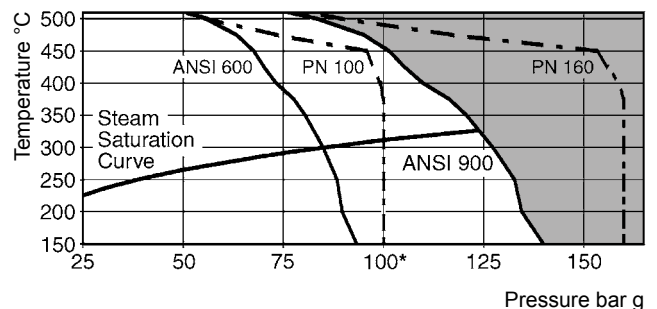
Part	Material	Denomination
Body	DT101F	Carbon steel ASTM A105
	DT102F	Alloy steel ASTM A182 F22
Cover	DT101F	Carbon steel ASTM A105
	DT102F	Alloy steel ASTM A182 F22
Body gasket	Stainless steel	AISI 304
Cover screws	Steel	ASTM A193 B16
Trim set	Stainless steel	AISI S400
Strainer screen	Stainless steel	AISI 316
Strainer cap	Stainless steel	AISI 316

Pressure - temperature range

Type DT101F



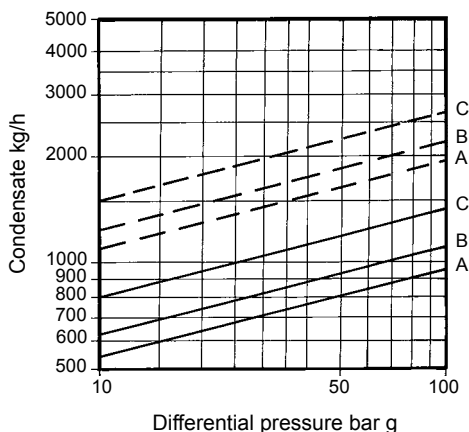
Type DT102F



The product must not be used in this region

Capacities

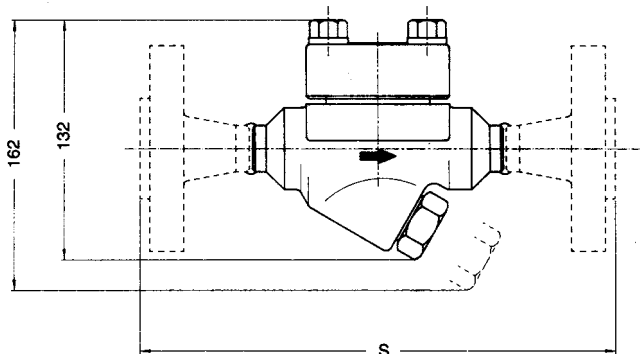
The condensate discharge capacities can be deduced by the diagram below shown.



Hot water capacity —————
Cold water capacity - - - - -

Dimensions / weights (approximate) in mm and kg

DN Connections	1/2"	3/4"	1"
	S	S	S
	Weight	Weight	Weight
Scrd / BW / SW	140	140	140
Fig. PN 100 / 160	235	250	260
Fig. ANSI 300	250	260	268
Fig. ANSI 600	260	270	280
Fig. ANSI 900 / 1500	277	296	303



How to specify

DN 1" Spirax Sarco DT102F/B thermodynamic steam trap socket weld connection according to ANSI B 16.11 SW. Alloy steel body construction suitable for high temperature; stainless steel internal components. Inbuilt maintainable protecting strainers.

Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions 3.333.5275.245 supplied with the product.

Installation note

The trap must be installed below the drain point, fitted according to the flow direction as indicated on the body and in the horizontal plane with the cover upright. Suitable stop valves must be installed upstream and downstream the steam trap to permit safe operation during routine maintenance of the trap and the strainer cleaning. Due to the blast operation of the steam trap, any downstream accessory must be installed at a distance of at least 1 - 2 m. After 24 hours from the start up it is advisable to check the cover screws tightening acting with a torque of 50 N m.

Maintenance note

To replace the internal trim set, remove the body cover unscrewing the cover screws with a 19 mm wrench. Unscrew the internal trim set using the following spanners:

- Trim set A 32 mm spanner
- Trim set B 36 mm spanner
- Trim set C 41 mm spanner

After cleaning all joint faces, fit the new unit and tighten with a torque of about 140 N m.

When reassembling, fit a new cover gasket and make sure that all joint faces are perfectly clean.

To clean or replace the strainer screen, unscrew the strainer cap using a 32 mm spanner, withdraw the screen and clean it or, if damaged, replace with a new one. For the reassembling there is no need of gasket; it is advisable to use a little anti-seize compound on the thread. Insert the screen in the cap slot and assemble tightening with a recommended torque of 200 N m.

Disposal

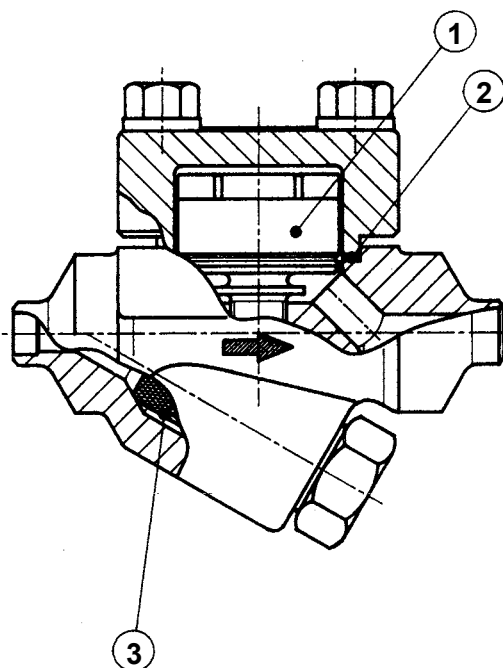
This product is recyclable. No ecological hazard is anticipated with the disposal of this product, providing due care is taken.

Spare parts

The available spare parts are indicated in the table with reference number given in the drawing. No other parts are available as spares.

Available spares

Internal trim set		1 - 2
Body gaskets set	(3 off)	2
Strainer assembly	(1 off)	3



How to order spares

Always order spare parts by using the description given in the table and state the type of trap, the internal trim set type and size of the connections.

Example: 1 Internal trim set for a DT102F/B Spirax Sarco steam trap, DN 1".