3A.340-E
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DT151F and DT152F
Thermodynamic steam traps

Description

Series DT151F and DT152F thermodynamic steam traps are manufactured with carbon steel or alloy steel body; 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.
DT151F and DT152F 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 and carry the CE mark when so required.

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

DT151F with carbon steel body and alloy steel cover
DT152F with alloy steel body and cover
Each type is available in four different executions with differentiated internal mechanism (type A, B, C, D) 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, 250	(on demand)
- Flanged	ANSI B 16.5 class 600, 900, 1500 and 2500 RF (on demand)	

Nominal sizes

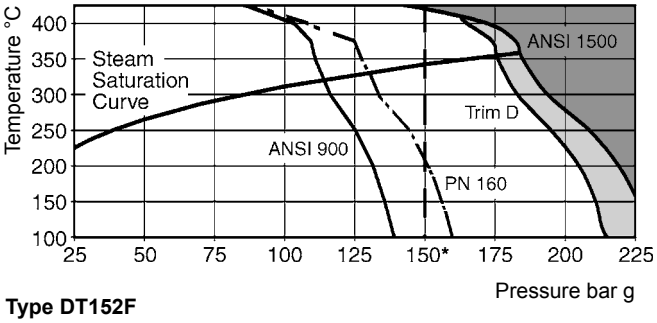
DN ½", ¾", 1", 1½" (BW and flanged execution only)
DN 15, 20, 25, 40

Limiting conditions (ISO 6552)

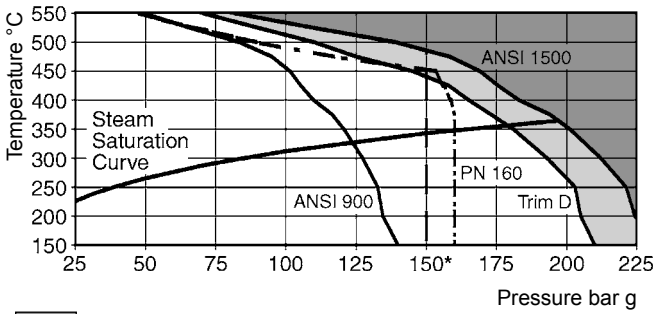
Body design conditions				ANSI 1500
PMA - Maximum allowable pressure			@ 20°C	250 bar g
TMA - Maximum allowable temperature		DT151F/A-B-C	@ 200 bar g	425°C
		DT151F/D	@ 160 bar g	425°C
		DT152F/A-B-C	@ 83 bar g	560°C
		DT152F/D	@ 68 bar g	560°C
Minimum allowable temperature				-10°C
PMO - Maximum operating suggested pressure				150 bar g*
TMO - Maximum operating temperature		DT151F		425°C
		DT152F		550°C
Maximum operating back pressure as percentage of upstream pressure				50%
Minimum differential pressure for satisfactory performance				10 bar g
Designed for a maximum cold hydraulic test pressure of				375 bar g

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

Pressure - temperature range
Type DT151F



Type DT152F

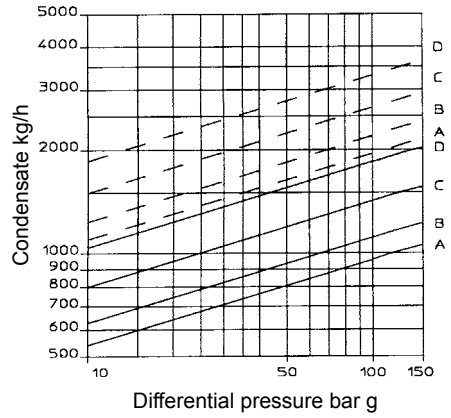


The product must not be used in this region
Limit imposed by trim D

Materials

Part		Material	Denomination
Body	DT151F	Carbon steel	ASTM A105
	DT152F	Alloy steel	ASTM A182 F22
Cover		Alloy steel	ASTM A182 F22
Body gasket		Stainless steel	AISI 304
Cover studs		Steel	ASTM A193 B16
Cover nuts		Steel	ASTM A194 Gr. 8
Trim set		Stainless steel	AISI S400
Strainer screen		Stainless steel	AISI 316
Strainer cap		Stainless steel	AISI 316

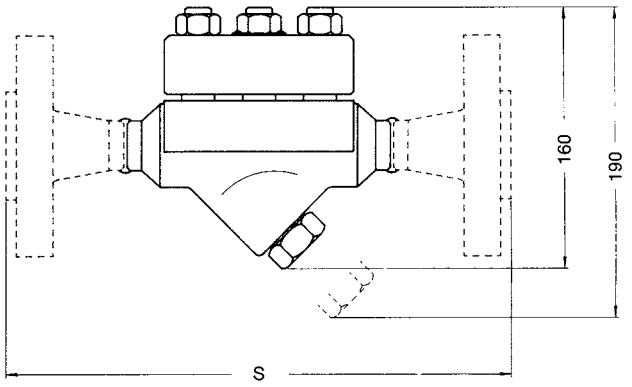
Capacities
The condensate discharge capacities can be deduced by the diagram below shown.



Hot water capacity ——————
Cold water capacity – – – – – – – – – – – – – –

Dimensions / weights (approximate) in mm and kg

DN	½"		¾"		1"		1½"	
Connections	S	Weight	S	Weight	S	Weight	S	Weight
Scrd / BW / SW	160	7.0	160	7.0	160	7.0	160	7.0
Flg PN 100/160	255	9.0	268	11.0	280	12.0	288	14.0
Flg PN 250	285	12.0	288	13.0	295	14.0	325	19.0
Flg ANSI 600	280	9.8	290	10.6	300	11.6	316	16.0
Flg ANSI 900/1500	297	11.4	315	13.4	323	15.2	342	19.8



How to specify
DN 1" Spirax Sarco DT152F/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 3.333.5275.246 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 nuts tightening acting with a torque of 80 N m.

Maintenance note
To replace the internal trim set, remove the body cover unscrewing the cover nuts with a 24 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
Trim set D	50 mm spanner

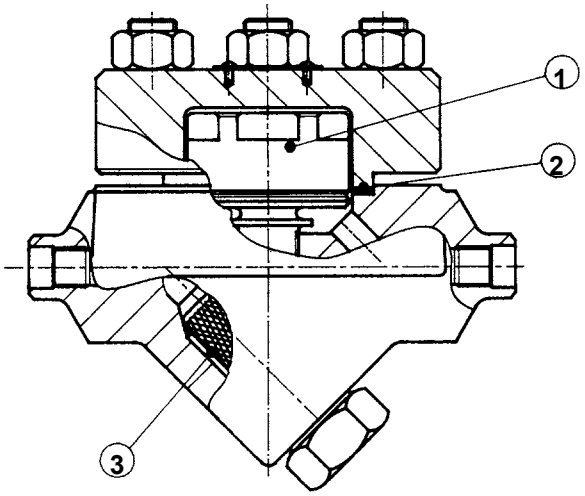
After cleaning all joint faces, fit the new unit and tighten with a torque of about 140 N m.
When reassembling, fit a new cover gasket and make sure that all joint faces are perfectly clean.

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 DT152F/B Spirax Sarco steam trap, DN 1".

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