

# spirax sarco

TI-P187-02  
ST Issue 2

## TDS46M

## Stainless Steel

# Thermodynamic Steam Trap with Maintainable Seat

### Description

The TDS46M thermodynamic steam trap has been specifically designed for low capacity applications up to 46 bar g.

#### TDS46M benefits:

- Integral strainer.
- Integral air vent.
- Insulation cap.
- Replaceable seat to ease maintenance.

#### Available types

Model	Body and top cap	Pipeline connections
<b>TDS46M</b>	Stainless steel	Screwed, socket weld

#### Optional extra

At extra cost a **BDV1** integral blowdown valve can be pre-fitted to the strainer cap, please specify at the time of order placement.

#### Standard

This product fully complies with the requirements of the European Pressure Equipment Directive 97/23/EC.

#### Certification

This product is available with certification to EN 10204 3.1.

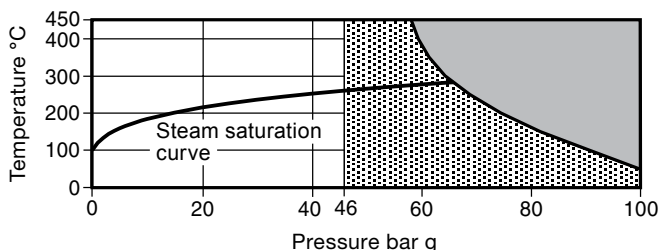
**Note:** All certification/inspection requirements must be specified at the time of order placement.

### Sizes and pipe connections

1/2", 3/4" and 1" screwed BSP or NPT.

1/2", 3/4" and 1" socket weld ends to BS 3799 Class 3000 lb.

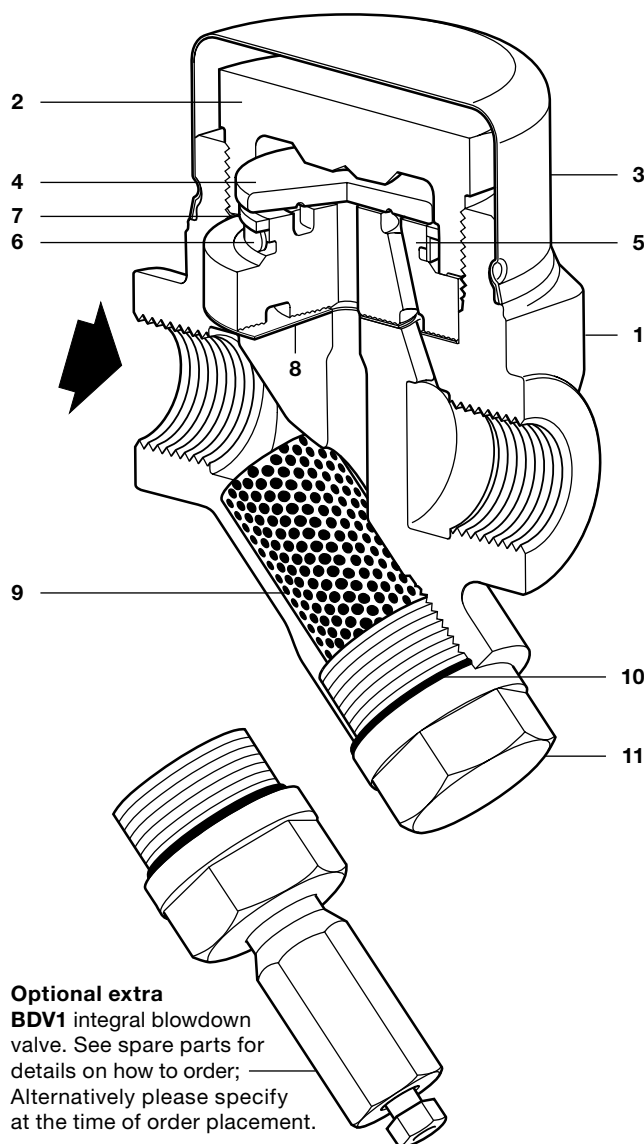
### Pressure/temperature limits (ISO 6552)



 The product **must not** be used in this region.

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Body design conditions		PN100 and ASME Class 600
PMA	Maximum allowable pressure	100 bar g @ 50°C
TMA	Maximum allowable temperature	450°C @ 58.3 bar g
Minimum allowable temperature		-50°C
PMO	Maximum operating pressure	46 bar g
TMO	Maximum operating temperature	450°C @ 46 bar g
Minimum operating pressure		1.5 bar g
Minimum operating temperature		0°C
<b>Note:</b> For lower operating temperatures consult Spirax Sarco		
PMOB	Maximum operating backpressure is 80% of the upstream pressure	
Designed for a maximum cold hydraulic test pressure of 150 bar g		



#### Optional extra

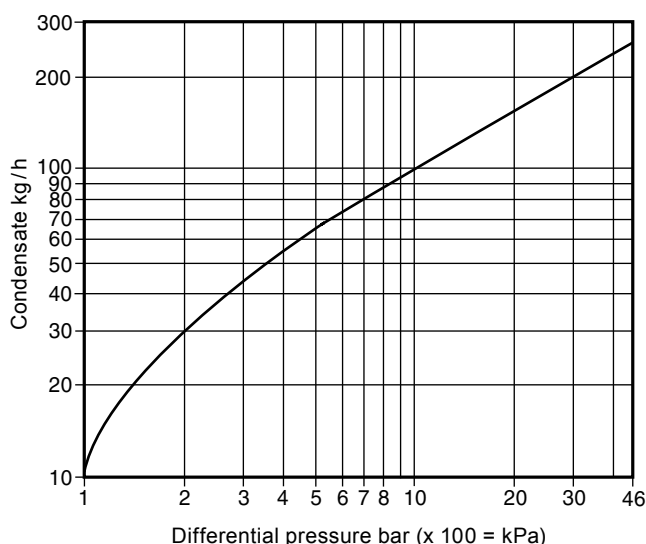
**BDV1** integral blowdown valve. See spare parts for details on how to order; Alternatively please specify at the time of order placement.

### Materials

No.	Part	Material
1	Body	Stainless steel 1.4308/ASTM A351 CF8
2	Top cap	Stainless steel 1.4301/ASTM A479 304
3	Insulating cover	Stainless steel EN 10088-1 1.4301
4	Disc	Hardened steel 1.2379
5	Seat	Hardened steel 1.2379
6	Bimetal ring	Bimetal
7	Support	Stainless steel AISI 304
8	Seat gasket	Graphite foil
9	Strainer screen	Stainless steel ASTM A748 316L
10	Strainer cap gasket	Stainless steel AISI 304
11	Strainer cap	Stainless Steel 1.4308/ASTM A351 CF8

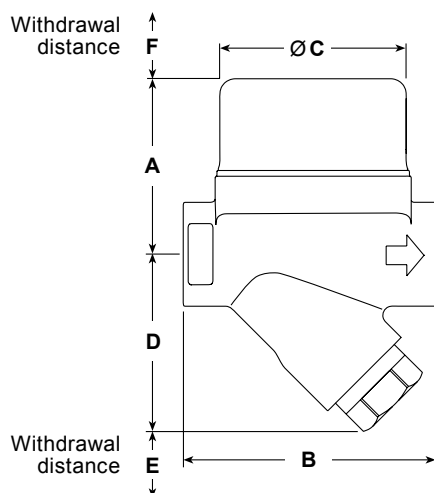
**First for Steam Solutions**

## Capacities



## Dimensions/weights (approximate) in mm and kg

Size	A	B		Ø C	D	E	F	Weights	
		Screwed	Socket weld					Screwed	Socket weld
½" DN15	58	78	92	61	59	40	30	1.38	1.49
¾" DN20	61	95	92	61	63	40	30	1.64	1.64
1" DN25	65	95	92	61	67	40	30	1.90	1.90



## Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P187-05) supplied with the product.

### Installation note:

The TDS46M is designed for installation with the disc in a horizontal plane with the insulating cover at the top. It is recommended that a non-return valve is fitted when discharging condensate into return lines where backpressure is experienced. It is also recommended that a diffuser is fitted when discharging to atmosphere.

For ease and maintenance, consideration should be given to fitting isolation valves upstream and downstream of the steam trap.

## How to order

**Example:** 1 off Spirax Sarco ½" TDS46M thermodynamic steam trap having screwed BSP connections.

## Spare parts

The spare parts available are shown in solid outline. Parts drawn in broken line are not supplied as spares.

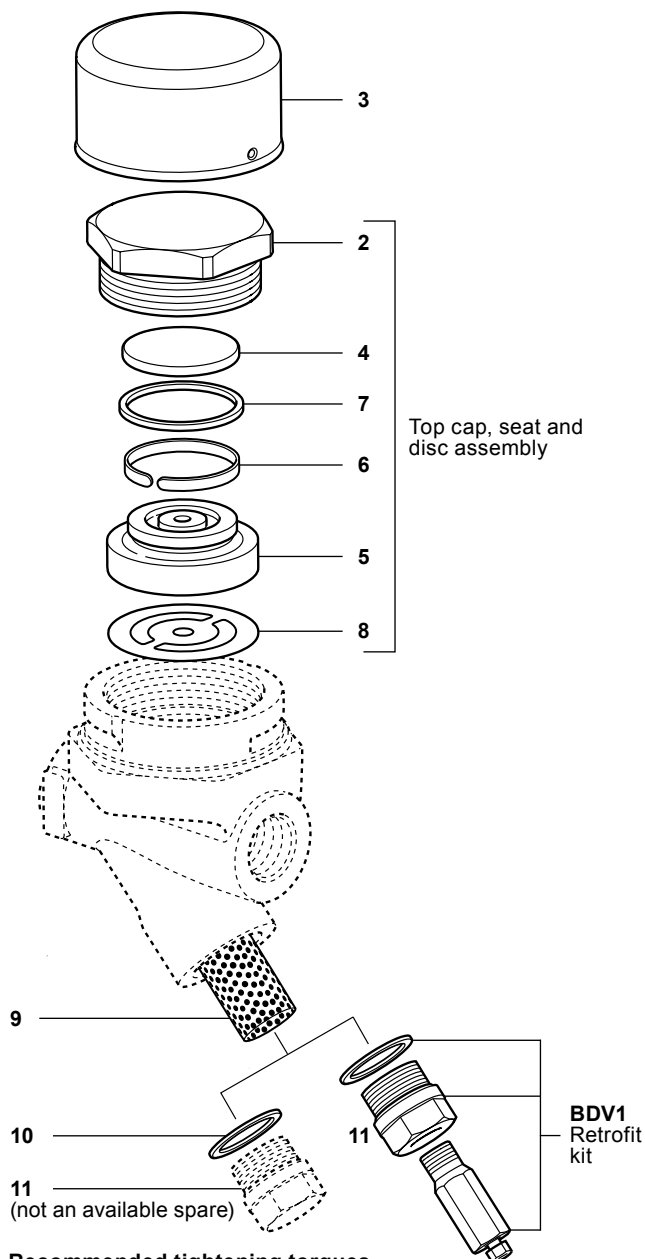
### Available spares

Insulating cover	3
Top cap, seat and disc assembly	2, 4, 5, 6, 7, 8
Strainer screen and gasket	9, 10
Set of gaskets (packet of 3 sets)	8, 10
BDV1 blowdown valve retrofit kit	

### How to order spares

Always order spares by using the description given in the column headed 'Available spares' and state the size and type of trap.

**Example:** 1 off Top cap, seat and disc assembly for a Spirax Sarco ½" TDS46M thermodynamic steam trap.



### Recommended tightening torques (for suitably lubricated threads)

Item	Part	mm	N m
2	Top cap	50 A/F	250 - 275
11	Strainer cap	24 A/F	105 - 110