



TI-P187-03
 CMGT Issue 8

UTDS46M

Stainless Steel Thermodynamic Steam Trap for use with Pipeline Connectors

Description

The UTDS46M is a workshop maintainable stainless steel thermodynamic steam trap with integral strainer, integral air vent, insulation cover and a replaceable seat. It has been specifically designed for low capacity applications up to 46 bar g (667 psi g). The UTDS46M is attached to a suitable pipeline connector by two screws for quick and easy installation, and replacement.

Optional extra

At extra cost a **BDV2 integral blowdown valve** can be pre-fitted to the strainer cap but must be specified at the time of order placement.

Standard

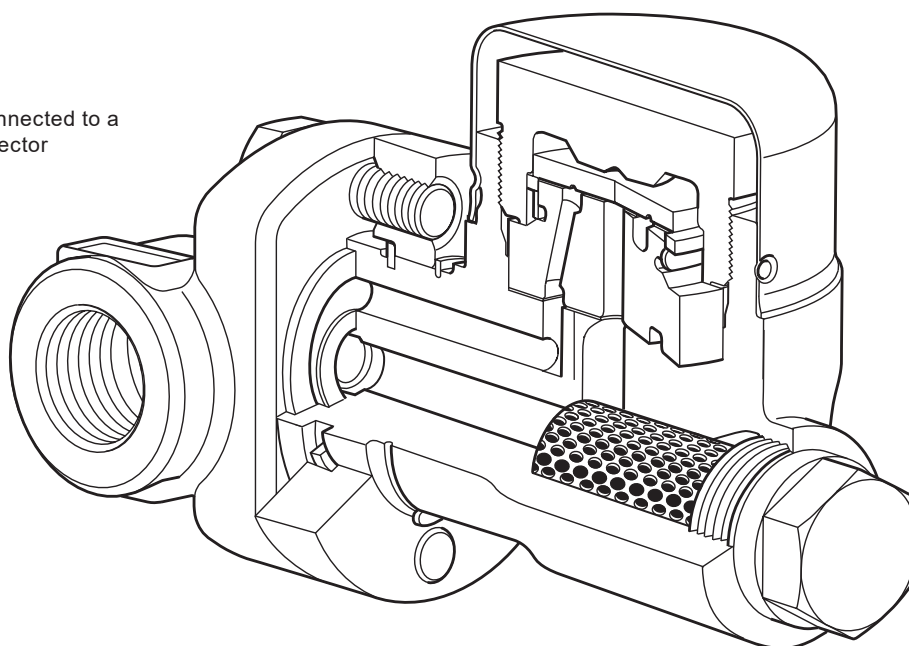
This product fully complies with the requirements of the European Pressure Equipment Directive 2014/68/EU.

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.

UTDS46M shown connected to a
PC10HP pipeline connector



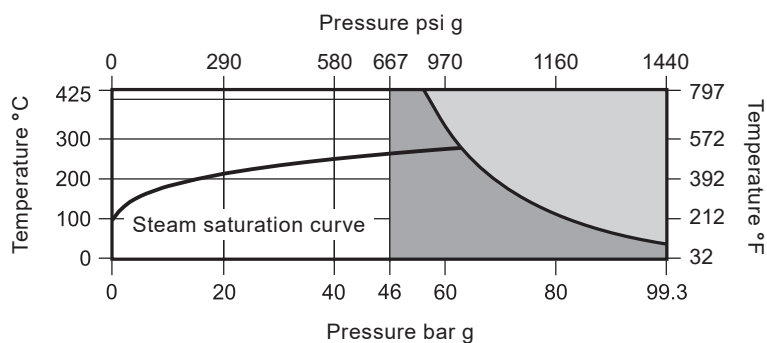
Pipeline connector options

The UTDS46M can be fitted to a variety of pipeline connectors:

PC10HP	Straight connector	ASME 600	(TI-P128-10)
PC3_	Straight connector with one piston isolation valve	ASME 600	(TI-P128-02)
PC4_	Straight connector with two piston isolation valves	ASME 600	(TI-P128-03)

See the relevant Technical Information sheet as listed above for details of the connections available for each pipeline connector.

Pressure / temperature limits



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

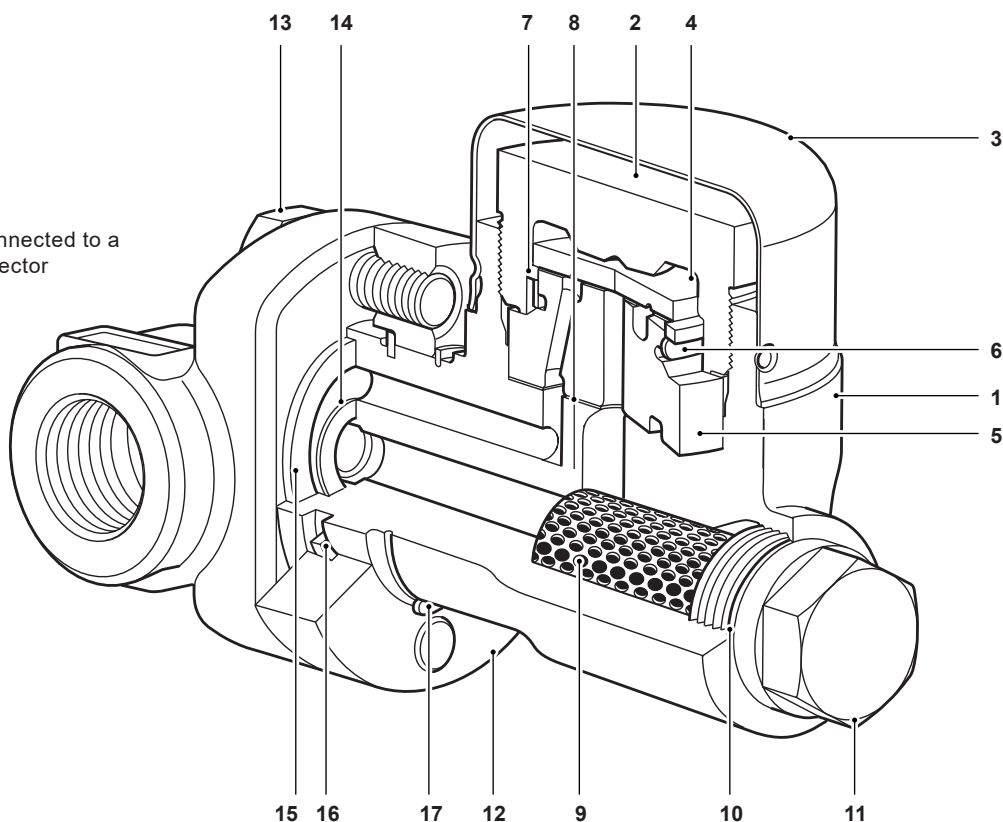
 The product **should not** be used in this region.

Note: The model of pipeline connector and connection selected will dictate the maximum operating limits of the complete assembly. Reference the specific pipeline connector Technical Information sheet as detailed in 'Pipeline connector options'.

Body design conditions		ASME Class 600	
PMA	Maximum allowable pressure	99.3 bar g @ 38 °C	1,440 psi g @ 100 °F
TMA	Maximum allowable temperature	425 °C @ 56 bar g	797 °F @ 812 psi g
Minimum allowable temperature		-40 °C	-40 °F
PMO	Maximum operating pressure	46 bar g @ 425 °C	667 psi g @ 797 °F
TMO	Maximum operating temperature	425 °C @ 46 bar g	797 °F @ 667 psi g
Minimum operating pressure		1.5 bar g	22 psi g
Minimum operating temperature		0 °C	32 °F
Note: 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		149 bar g	2,161 psi g

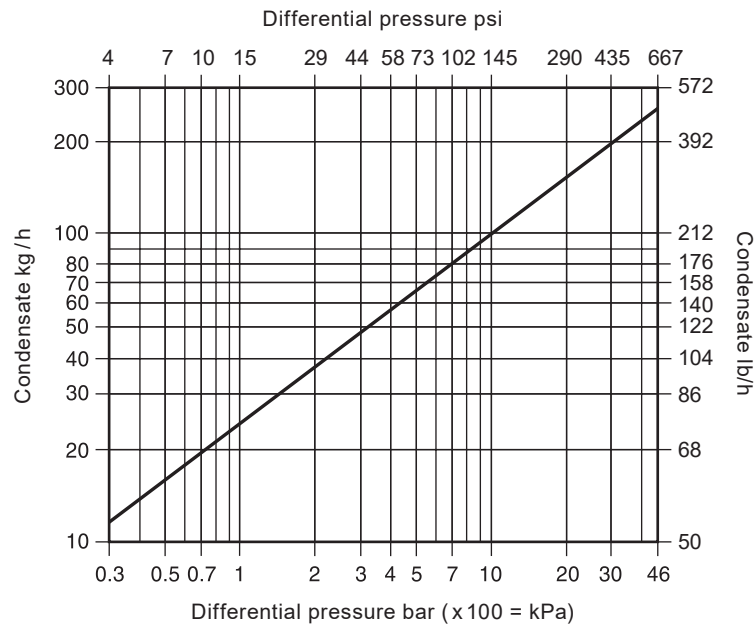
Materials

UTDS46M shown connected to a **PC10HP** pipeline connector

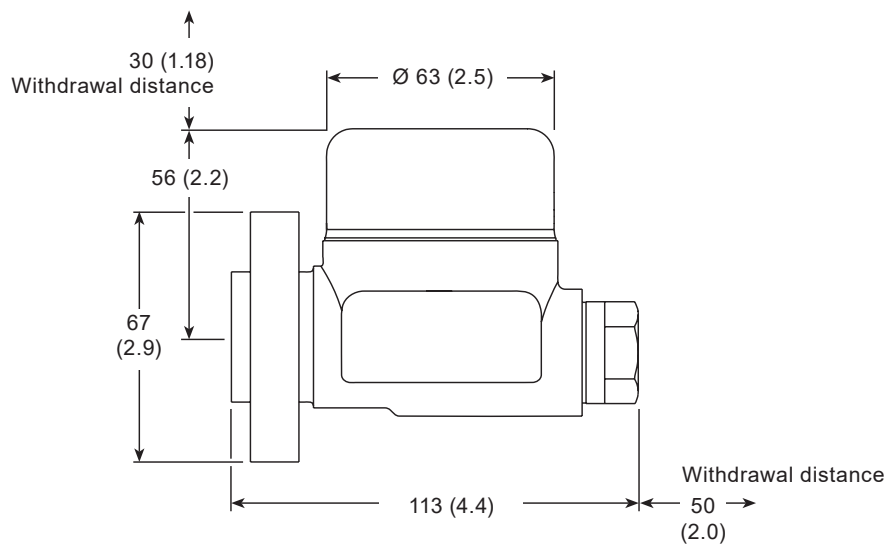


No.	Part	Material	
1	Body	Stainless steel	1.4308/ASTM A351 CF8
2	Top cap	Stainless steel (ENP coated)	1.4301/ASTM A479 304
3	Insulating cover	Stainless steel	EN 10088-1 1.4301
4	Disc	Hardened steel	1.2379
5	Seat	Hardened steel	1.2379
6	Bimetal ring	Bimetal	
7	Support	Stainless steel	AISI 304
8	Seat gasket	Graphite foil	
9	Strainer screen	Stainless steel	ASTM A478 316L
10	Strainer cap gasket	Stainless steel	AISI 304
11	Strainer cap	Stainless steel	1.4308/ASTM A351 CF8
12	Flange	Steel - ELNP	ASTM A193 B7
13	Screws	Steel	ASTM A193 B7
14	Inner gasket	Graphite/stainless steel laminate	AISI 316 strip
15	Outer gasket	Graphite/stainless steel laminate	AISI 316 strip
16	Split ring	Stainless Steel	ASTM A240 304
17	Crescent ring	Carbon spring steel	

Capacities



Dimensions/weights (approximate) in mm (inches) and kg (lbs)



Weight

approximately 1.75 kg (3.86 lb)

How to order - The UTDS46M is supplied in two parts:-

	PC10HP	Straight pipeline connector
1. The swivel pipeline connectors	PC3_	Straight connector with one integral piston isolation valve
	PC4_	Straight connector with two integral piston isolation valves
2. The UTDS46M trap complete with inner and outer gaskets and two connector screws. These items will be supplied in a protective box.		

Note: Any optional extras need to be specified at the time of order placement.

How to order example:

1 off Spirax Sarco ¾" PC10HP swivel pipeline connector with socket weld connections.

1 off Spirax Sarco UTDS46M thermodynamic steam trap fitted with a BDV2 integral blowdown valve. The unit is supplied complete with connector screws and gaskets.

Safety information, installation and maintenance

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

Installation note:

The UTDS46M 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 of maintenance, consideration should be given to fitting isolation valves upstream and downstream of the steam trap.

Spare parts

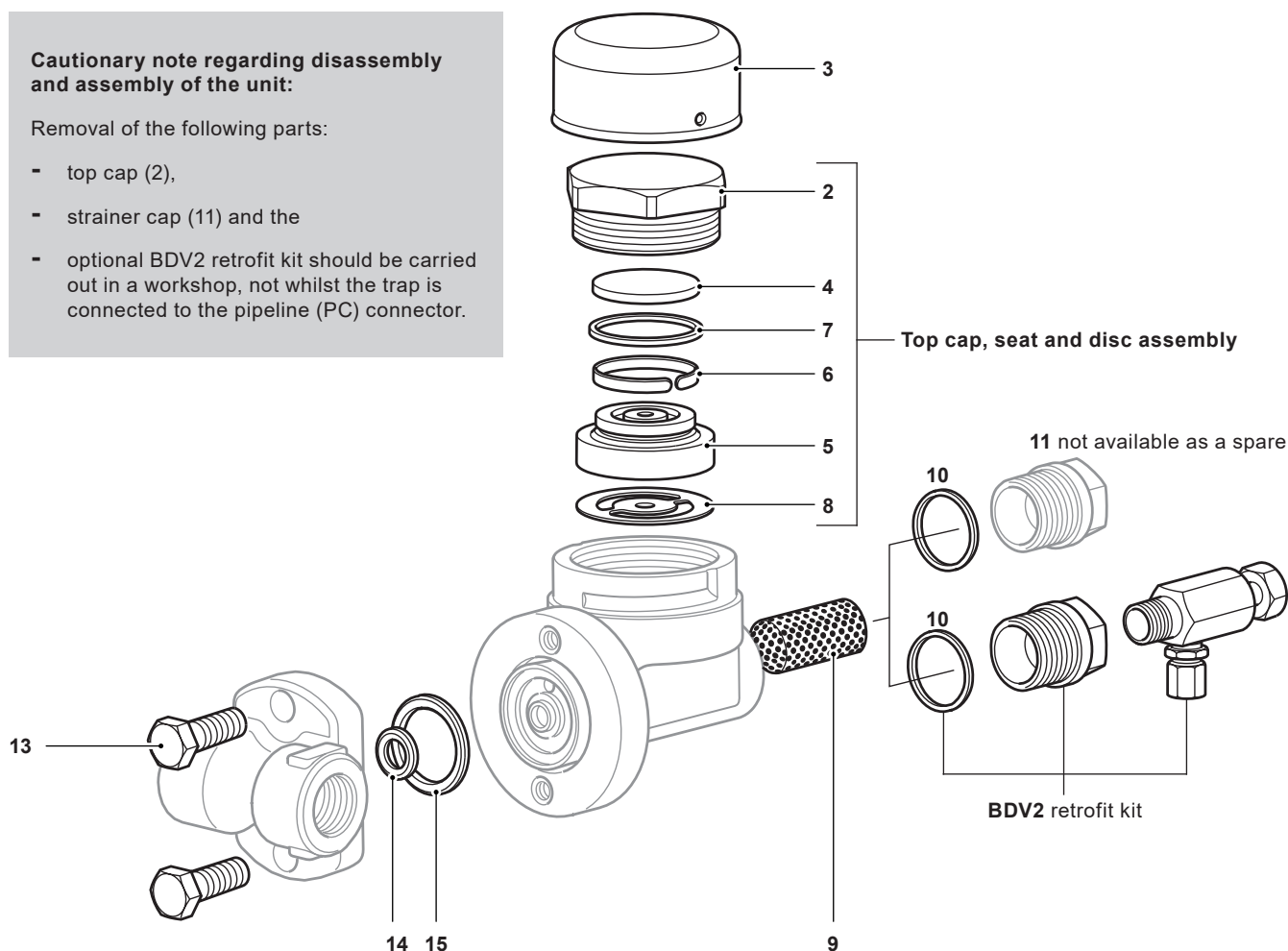
The spare parts available are shown in solid outline. Parts drawn in a grey line are not supplied as spares.

Available spares

Insulating cover	3
Top cap, seat and disc assembly	2, 4, 5, 6, 7, 8
Strainer screen	9, 10
Set of gaskets (packets of 3 sets)	8, 10
Connector screws and gaskets	13, 14, 15
BDV2 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 steam trap.
Example: 1 - Top cap, seat and disc assembly for a Spirax Sarco UTDS46M thermodynamic steam trap.



Recommended tightening torques (for suitably lubricated threads)

Item	Part	 mm	N m	(lbf ft)
2	Top cap	50 A/F	400	295
11	Strainer cap	24 A/F	110	46.5 - 48.7
13	Connector screws	5/16" A/F	33	19