



TI-P156-01
CMGT Issue 3

TD10

Thermodynamic Steam Trap

Description

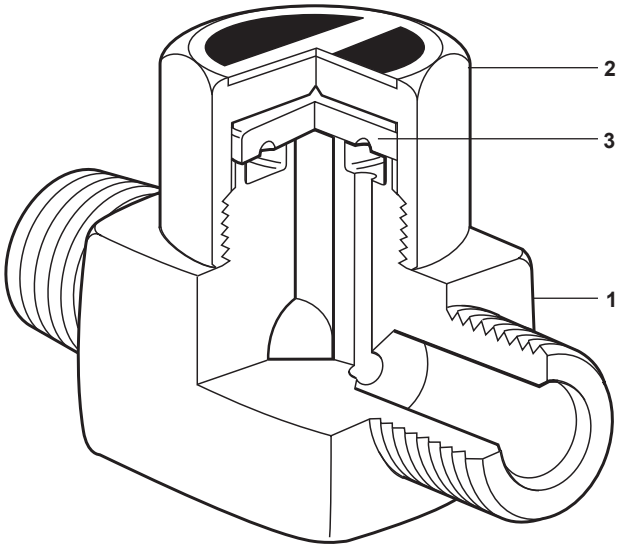
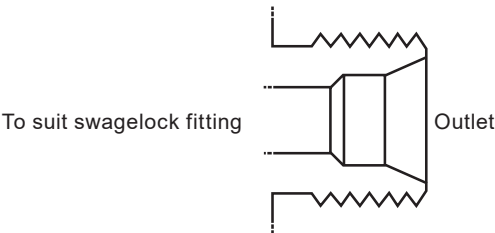
The TD10 is a miniature thermodynamic disc trap designed specifically for draining small steam users like steam irons and instrument tracers.

Certification

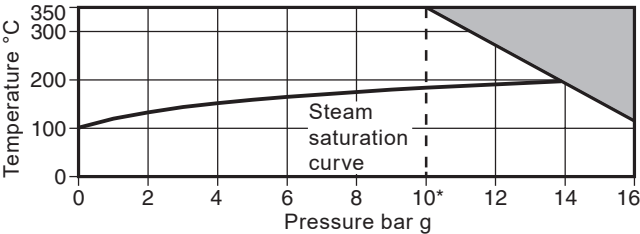
This product is available with certification to EN 10204 2.2.
Note: All certification/inspection requirements must be stated at the time of order placement.

Sizes and pipe connections

¼" swagelock outlet/BSP inlet (union and ferrule not supplied).
¼" BSP taper male inlet/BSP outlet.



Pressure/temperature limits



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

* PMO Maximum operating pressure recommended 10 bar g.
PMOB Maximum operating back pressure 50% of upstream pressure.

Body design conditions		PN16
PMA	Maximum allowable pressure	16 bar g
TMA	Maximum allowable temperature	350°C
PMO	Maximum operating pressure	10 bar g
TMO	Maximum operating temperature	350°C
Designed for a maximum cold hydraulic test pressure of 24 bar g		

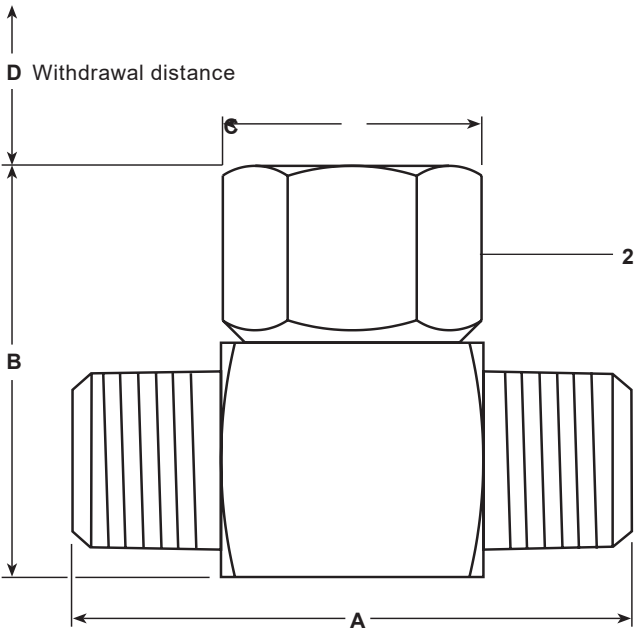
Materials

No.	Part	Material	
1	Body	Stainless steel	BS 970 420 S37
2	Cap	Stainless steel	AISI 416
3	Disc	Stainless steel	BS 1449 420 S45

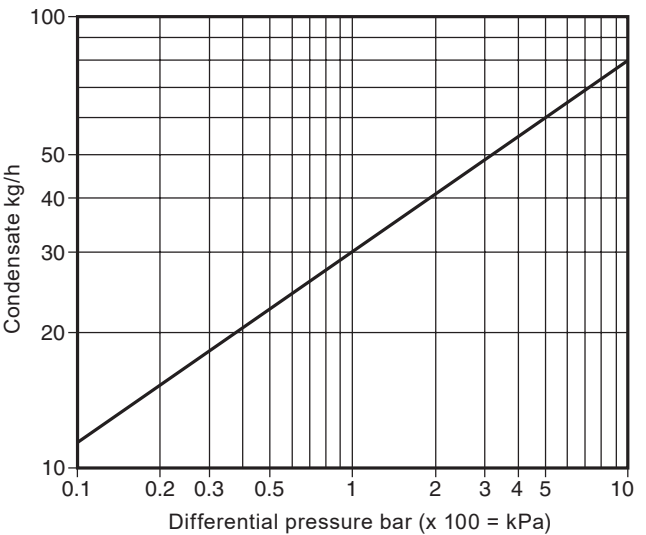
Steam traps
Thermodynamic

Dimensions/weight (approximately) in mm and kg

Size	A	B	C	D	Weight
1/4"	39.5	29.5	18.5	10	0.7





Capacities



Spare parts

There are no available spares for the TD10.

Recommended tightening torques

Item	 or  mm	N m
2	17 A/F	22 - 25

Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P068-31) supplied with the product.
The trap should preferably be installed in the horizontal plane, with a small drop leg proceeding it. Suitable isolation valves must be installed to allow for safe maintenance and trap replacement.
Where the trap discharges into a closed return system, a non-return valve should be fitted downstream to prevent return flow.

Disposal

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

How to order

Example: 1 off 1/4" Spirax Sarco TD10 thermodynamic steam trap with swagelock outlet connection.



TI-P151-02
CMGT Issue 5

TD16 Thermodynamic Steam Trap

Description

The TD16 thermodynamic steam trap is specifically designed for low capacity condensate loads associated with steam mains drainage and tracing applications up to 16 bar g. Its all stainless steel construction makes it corrosion resistant and very robust.

Standards

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

Certification

This product is available with material certification to EN 10204 2.2.

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

Sizes and pipe connections

½", ¾" and 1" screwed BSP (BS 21 parallel) or NPT.

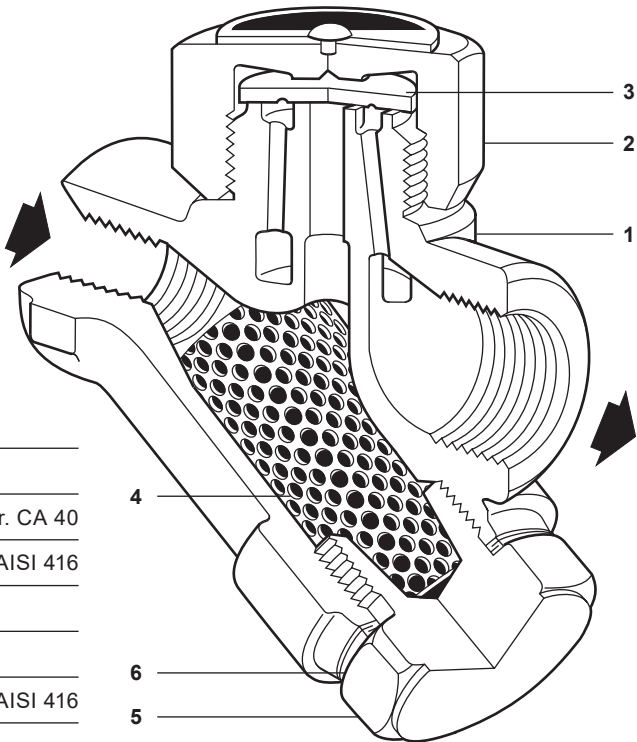
Optional extras

Insulating cover: to prevent the trap being unduly influenced by excessive heat loss such as when subjected to low outside temperatures, wind, rain, etc.

Integral blowdown valve: to remove debris from the strainer, see TI-P153-01 for further details.

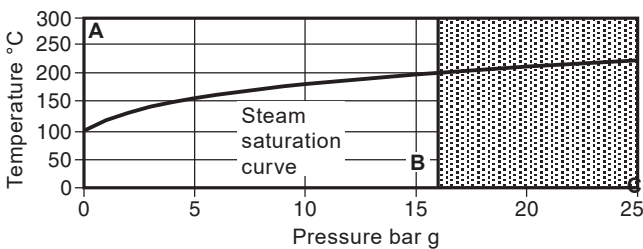
Materials

No.	Part	Material
1	Body	Stainless steel ASTM A743 Gr. CA 40
2	Cap	Stainless steel AISI 416
3	Disc	Stainless steel
4	Strainer screen	Stainless steel
5	Strainer cap	Stainless steel AISI 416
6	Strainer cap gasket	Stainless steel
7	Insulating cover (optional extra)	Aluminium



Steam traps
Thermodynamic

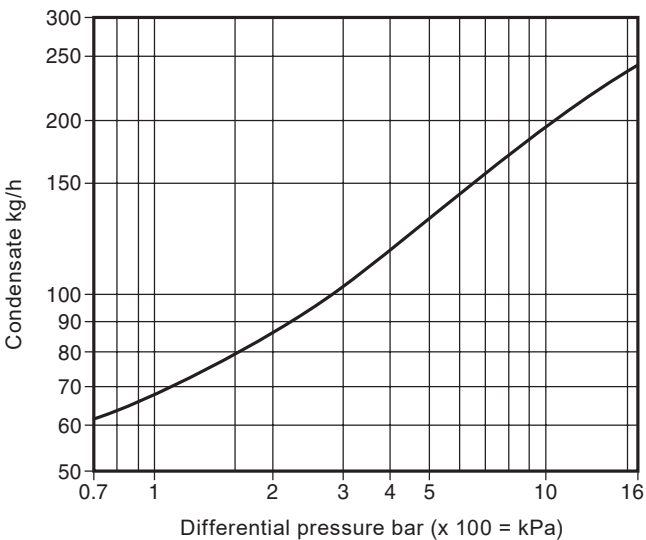
Pressure/temperature limits



This product is not designed for operation above 16 bar g.

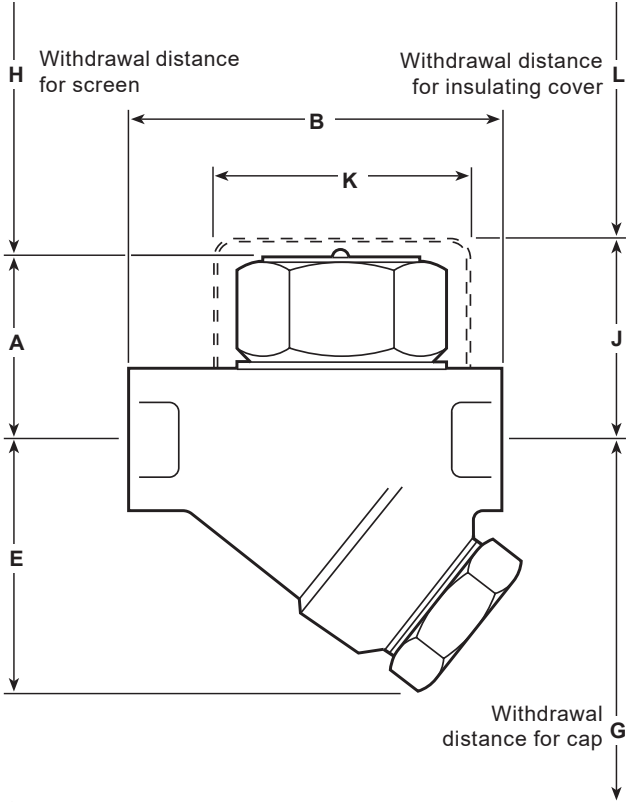
Body design conditions		PN25
PMA	Maximum allowable pressure	25 bar g @ 300°C
TMA	Maximum allowable temperature	300°C @ 25 bar g
Minimum allowable temperature		0 °C
PMO	Maximum operating pressure for saturated steam service	16 bar g
ΔPMN	Minimum differential pressure for correct operation	0.2 bar g
PMOB	Maximum operating backpressure should not exceed 80% of the inlet pressure under any conditions otherwise the trap may not shut off.	
TMO	Maximum operating temperature	300°C @ 16 bar g
Minimum operating temperature		0 °C
Note: For lower operating temperatures consult Spirax Sarco		
Designed for a maximum cold hydraulic test pressure of:		38 bar g

Capacities



Dimensions/weights (approximate) in mm and kg

Size	A	B	E	G	H	J	K	L	Weight
1/2"	41	78	55	85	20	52	57	38	0.75
3/4"	44	85	57	100	20	54	57	38	0.95
1"	48	95	60	100	20	58	57	38	1.50



Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P151-05) supplied with the product.

Installation note

The trap should preferably be installed in the horizontal plane, (top cap upper most) with a small drop leg preceding it. Suitable isolation valves must be installed to allow for safe maintenance and trap replacement.

Disposal

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

How to order

Example: 1 off Spirax Sarco 1/2" TD16 thermodynamic steam trap having screwed NPT connections.

Steam traps
Thermodynamic

Spare parts

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

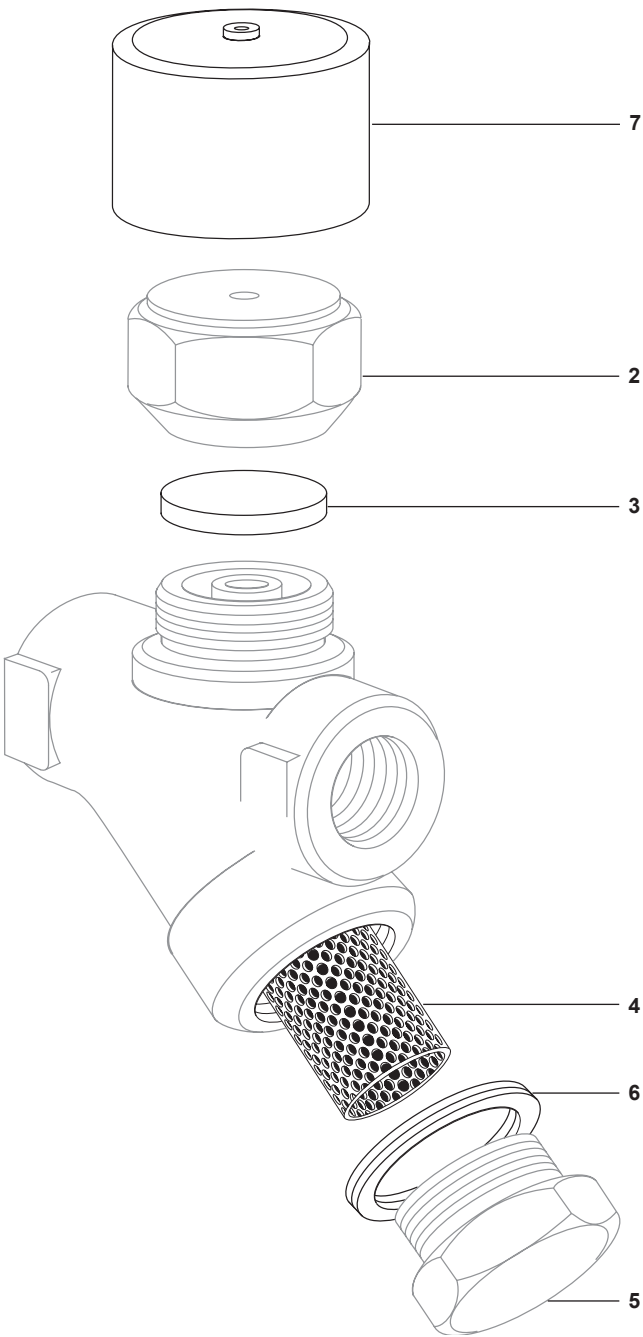
Available spares

Disc (packet of 3)	3
Strainer screen and gasket	4, 6
Insulating cover	7
Strainer cap gasket	6



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 - Strainer screen and gasket for a Spirax Sarco ½" TD16 thermodynamic steam trap.



Recommended tightening torques

Item	 or mm		N m
2	36 A /F		135 - 150
5	32 A /F	M28	170 - 190



TI-P068-06
ST Issue 7

TD259 and TD259A Thermodynamic Steam Traps

Description

The TD259 is a maintainable thermodynamic steam trap for use on instrument tracing or any small bore steam heating installations. It can be provided with an anti-air-binding disc for quick start-up on batch process and is designated TD259A.

Standards

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

Certification

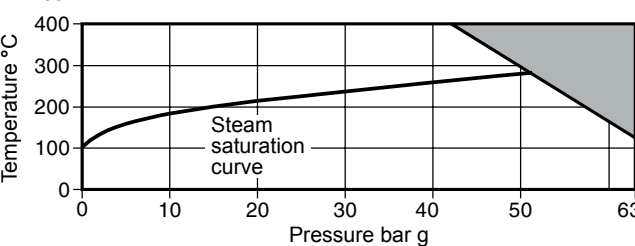
This product is available with a manufacturer's Typical Test Report.
Note: All certification/inspection requirements must be stated at the time of order placement.

Sizes and pipe connections

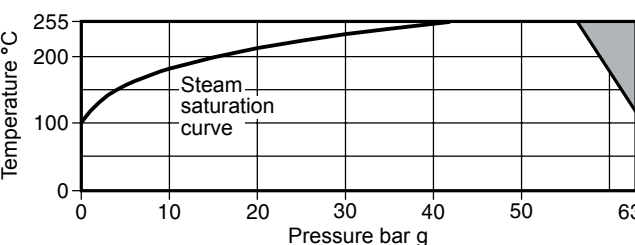
1/4" screwed BSP or NPT.

Pressure/temperature limits

TD259

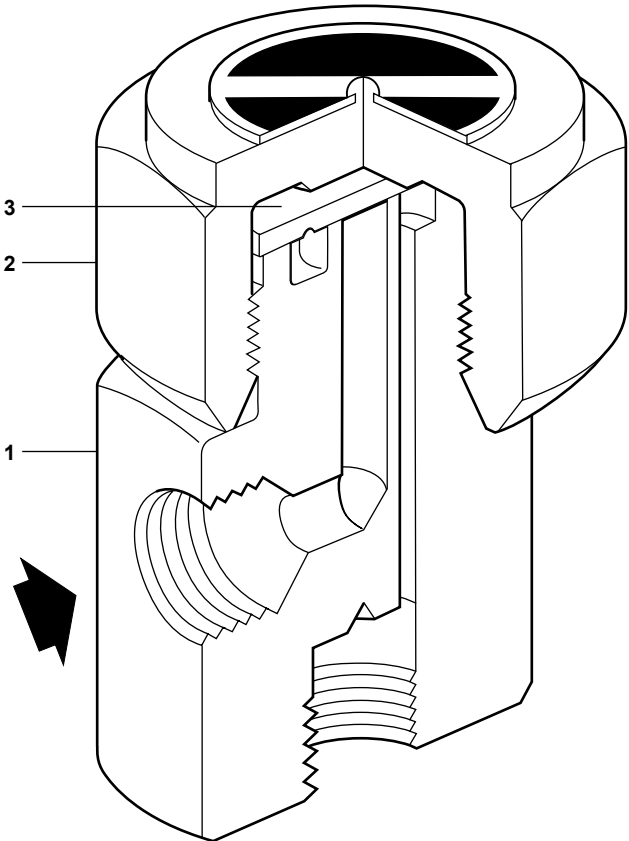


TD259A

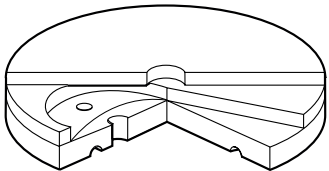


The product **must not** be used in this region.

Body design conditions				PN63
PMA	Maximum allowable pressure		63 bar g @ 120°C	
TMA	Maximum allowable temperature	TD259	400°C	
		TD259A	255°C	
Minimum allowable temperature				0°C
PMO	Maximum operating pressure for saturated steam service		42 barg	
TMO	Maximum operating temperature	TD259	400°C @ 42 bar g	
		TD259A	255°C @ 56 bar g	
Minimum operating temperature				0°C
Note: For lower operating temperatures consult Spirax Sarco.				
Minimum pressure for satisfactory operation is 0.25 bar g				
PMOB	Maximum operating backpressure must not exceed 80% of the upstream pressure			
ΔPMX Maximum differential pressure is limited to the PMO				
Designed for a maximum cold hydraulic test pressure of 95 bar g				



TD259A
anti-air-binding disc

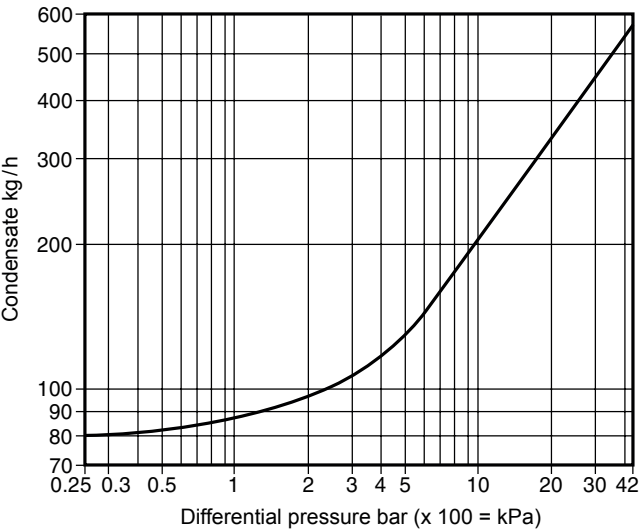


Materials

No.	Part	Material	
1	Body	Stainless steel	AISI 420
2	Cap	Stainless steel	AISI 416
3	Disc	Stainless steel	BS 1449 420 S45

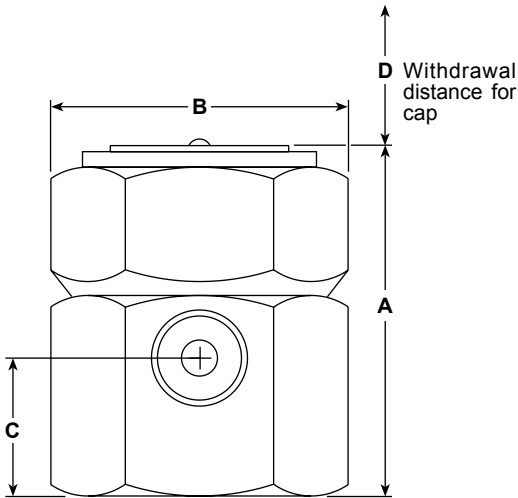
Steam traps
Thermodynamic

Capacities - Hot water



Dimensions/weight (approximate) in mm and kg

Size	A	B	C	D	Weight
1/4"	54.5	42	22	40	0.36



Spare parts

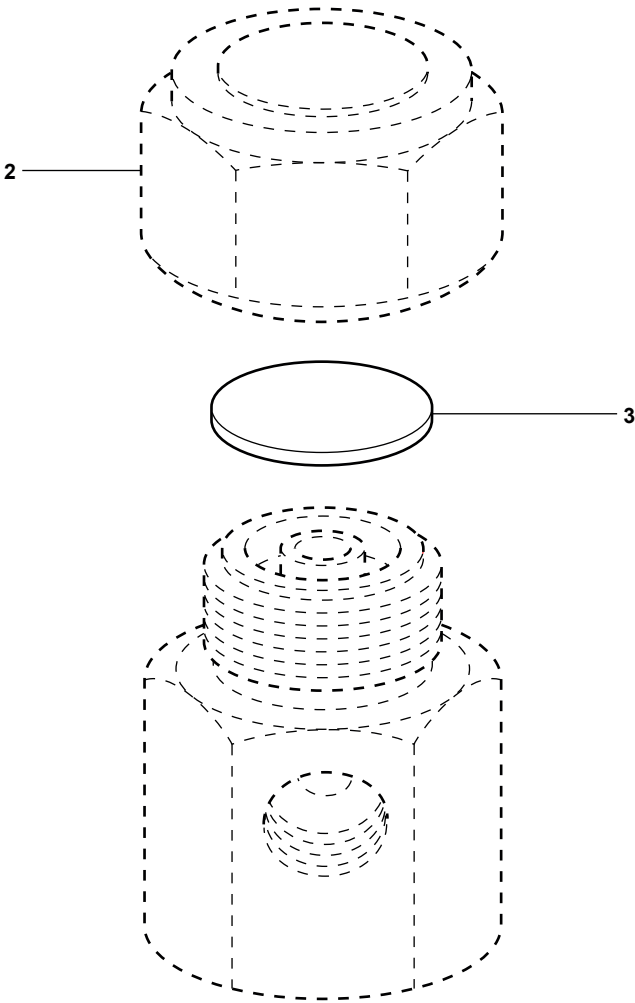
The spare parts available are shown in solid outline. Parts drawn in broken line are not supplied as spares.

Disc (packet of 3)	3
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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 - Packet of discs for a 1/4" TD259 thermodynamic steam trap.



Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P068-31) supplied with the product.



Installation note:

Preferably fitted in a horizontal pipe but can be fitted in other positions.

How to order

Example: 1 off Spirax Sarco 1/4" TD259A thermodynamic steam trap having screwed BSP connections.

Recommended tightening torque

Item	Part	 or  mm	N m
2	Cap	36 A/F	135 - 150



TI-P068-22
CMGT Issue 6

TD42

Thermodynamic Steam Trap

Description

The TD42 is a maintainable thermodynamic steam trap.
The TD42LC is specifically designed for relatively small condensate load and is, therefore, ideal for mains drainage applications.

Standards

This product fully complies with the requirements of the Pressure Equipment Directive (PED).

Certification

This product is available with a manufacturer's Typical Test Report.
Note: All certification/inspection requirements must be stated at the time of order placement.

Sizes and pipe connections

3/8", 1/2" LC - Low Capacity, 1/2" and 3/4" screwed BSP or NPT.

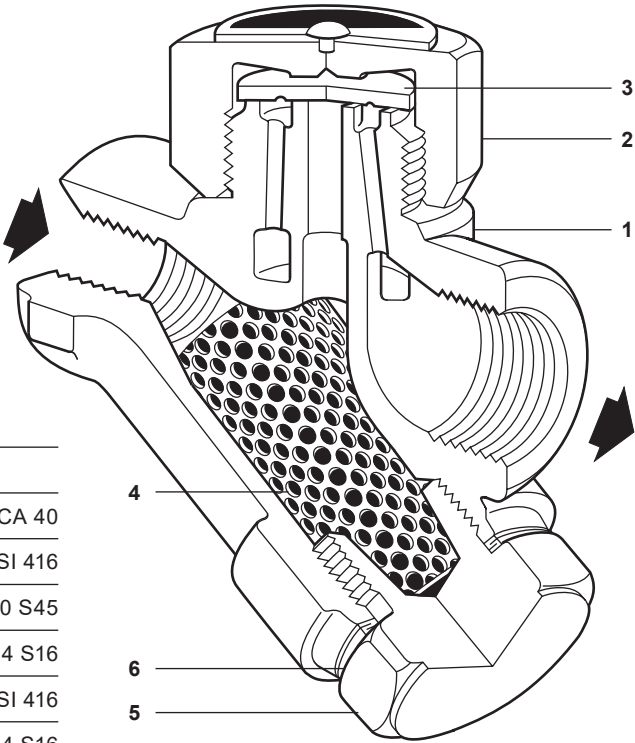
Optional extras

Insulating cover: to prevent the trap being unduly influenced by excessive heat loss such as when subjected to low outside temperatures, wind, rain, etc.

Integral blowdown valve: a BDV1 or BDV2 can be fitted to the strainer cap, alternatively the strainer cap can be drilled, tapped and plugged 3/8" BSP or NPT.

Materials

No.	Part	Material	
1	Body	Stainless steel	ASTM A743 Gr. CA 40
2	Cap	Stainless steel	AISI 416
3	Disc	Stainless steel	BS 1449 420 S45
4	Strainer screen	Stainless steel	BS 1449 304 S16
5	Strainer cap	Stainless steel	AISI 416
6	Strainer cap gasket	Stainless steel	BS 1449 304 S16
7	Insulating cover (optional extra)	Aluminium	

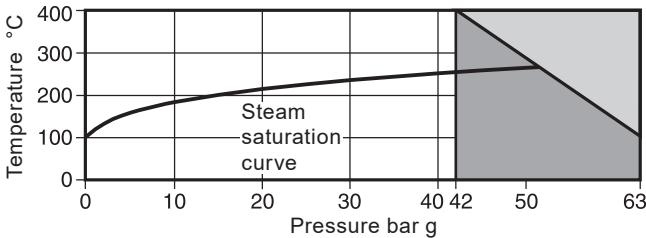


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Steam traps
Thermodynamic

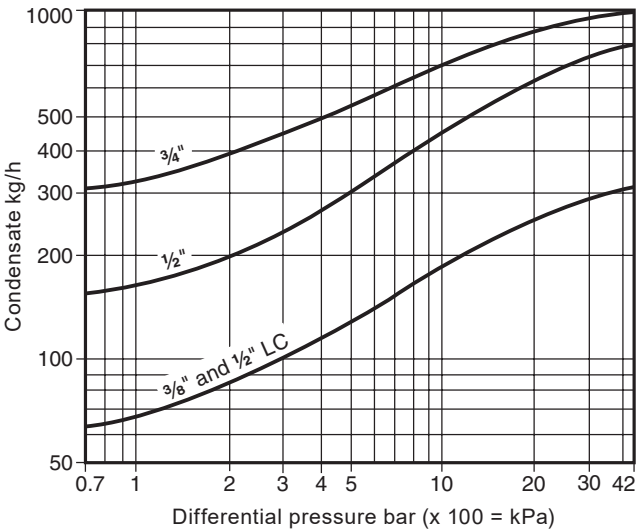
Pressure/temperature limits



- The product **must not** be used in this region.
- For optimum product performance the PMO should not exceed 42 bar g.

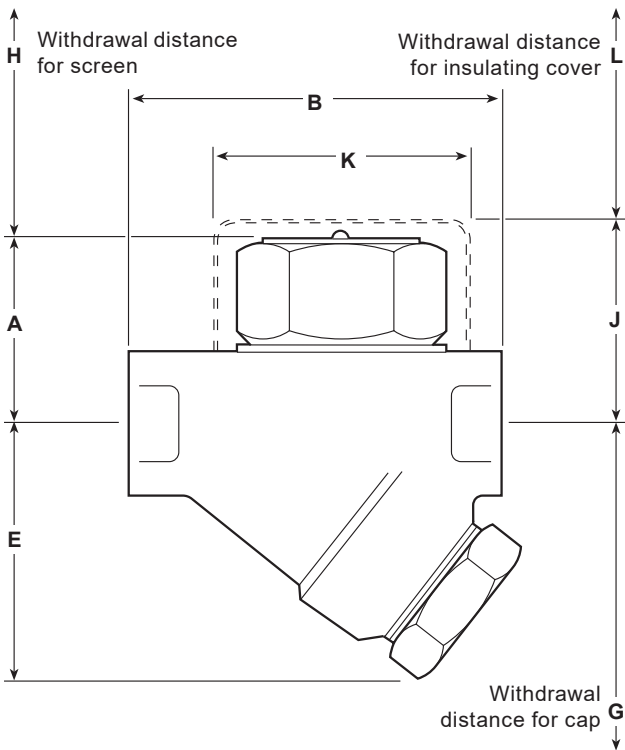
Body design conditions		PN63
PMA	Maximum allowable pressure	63 bar g @ 100 °C
TMA	Maximum allowable temperature	400 °C @ 42 bar g
Minimum allowable temperature		0 °C
PMO	Maximum operating pressure	42 bar g recommended
TMO	Maximum operating temperature	400 °C @ 42 bar g
Minimum operating temperature		0 °C
Note: For lower operating temperatures consult Spirax Sarco		
PMOB Maximum backpressure should not exceed 80% of the inlet pressure under any conditions of operation otherwise the trap may not shut-off.		
Minimum operating differential pressure for satisfactory operation		0.25 bar g
Designed for a maximum cold hydraulic test pressure of:		95 bar g

Capacities



Dimensions/weights (approximate) in mm and kg

Size	A	B	E	G	H	J	K	L	Weight
3/8"	41	78	55	85	41	57	57	38	0.75
1/2"LC	41	78	55	85	41	57	57	38	0.75
1/2"	41	78	55	85	41	57	57	38	0.80
3/4"	47	90	60	100	41	63	57	38	1.00



Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P068-24) supplied with the product.

Installation note

The TD42 is designed for installation with the capsule in a horizontal plane with the 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.

Disposal

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

How to order

Example: 1 off 1/2" Spirax Sarco TD42 thermodynamic steam trap having screwed BSP connections.

Steam traps
Thermodynamic

Spare parts

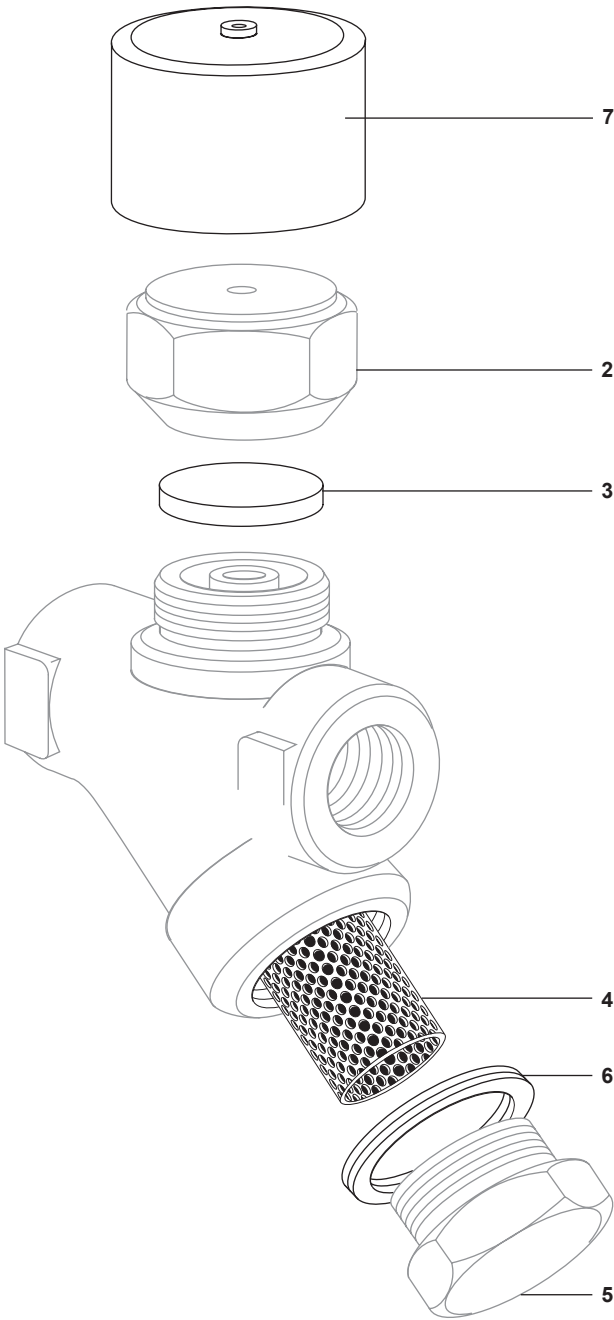
The spare parts available are shown in solid outline.
Parts drawn in a grey line are not supplied as spares.

Available spares



Disc (packet of 3)	3
Strainer screen and gasket	4, 6
Insulating cover	7
Strainer cap gasket (packet of 3)	6

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 - Strainer screen and gasket for a Spirax Sarco ½" LC TD42 thermodynamic steam trap.



Recommended tightening torques

Item	Part	 or 	N m
2	(TD42LC)	36	135 - 150
	(TD42)	41	180 - 200
5		32 M28	170 - 190

8.7
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TI-P151-04
CMGT Issue 6

TD42A

Thermodynamic Steam Trap

Description

The TD42A is a maintainable thermodynamic steam trap where the release of air is a concern. It is supplied with an anti-air-binding disc.

Standards

This product fully complies with the requirements of the Pressure Equipment Directive (PED).

Certification

This product is available with a manufacturers' Typical Test Report.

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

Sizes and pipe connections

3/8", 1/2" LC and 1/2" screwed BSP (BS 21 parallel) or NPT.

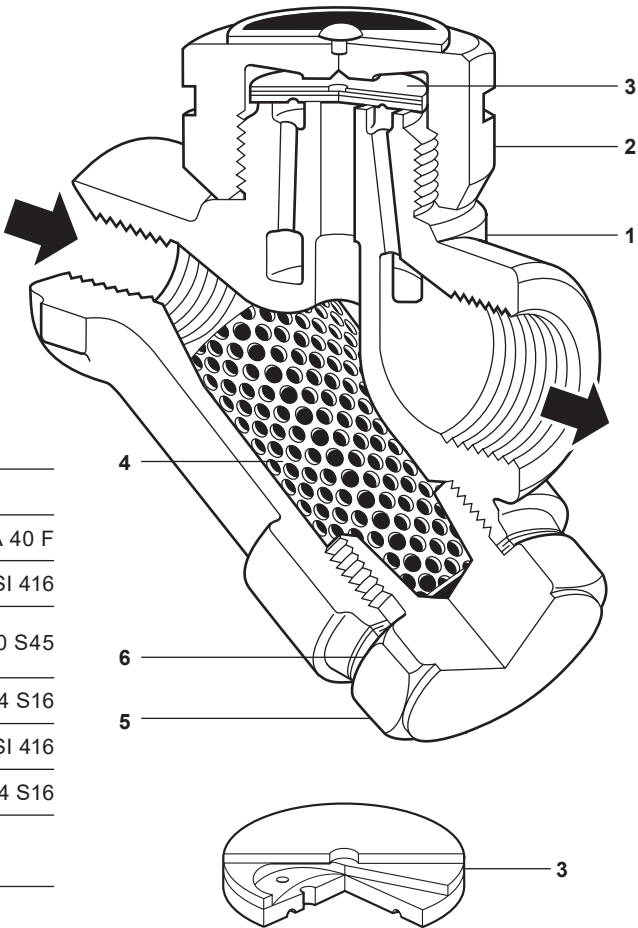
Optional extras

Insulating cover: to prevent the trap being unduly influenced by excessive heat loss such as when subjected to low outside temperatures, wind, rain, etc.

Integral blowdown valve: a BDV1 or BDV2 can be fitted to the strainer cap, alternatively the strainer cap can be drilled, tapped and plugged 3/8" BSP or NPT.

Materials

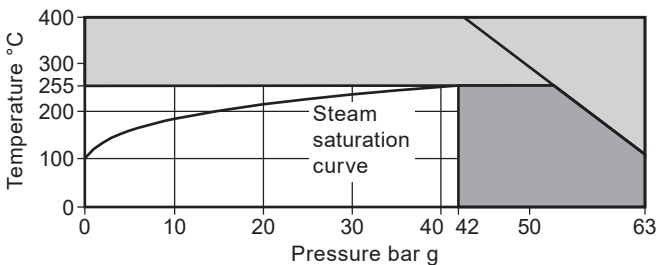
No.Part	Material		
1	Body	Stainless steel	ASTM A743 Gr. CA 40 F
2	Cap	Stainless steel	AISI 416
3	Disc	Stainless steel Bi-metal	BS 1449 420 S45
4	Strainer screen	Stainless steel	BS 1449 304 S16
5	Strainer cap	Stainless steel	AISI 416
6	Strainer cap gasket	Stainless steel	BS 1449 304 S16
7	Insulating cover (optional extra)	Aluminium	



Anti-air-binding disc

Steam traps
Thermodynamic

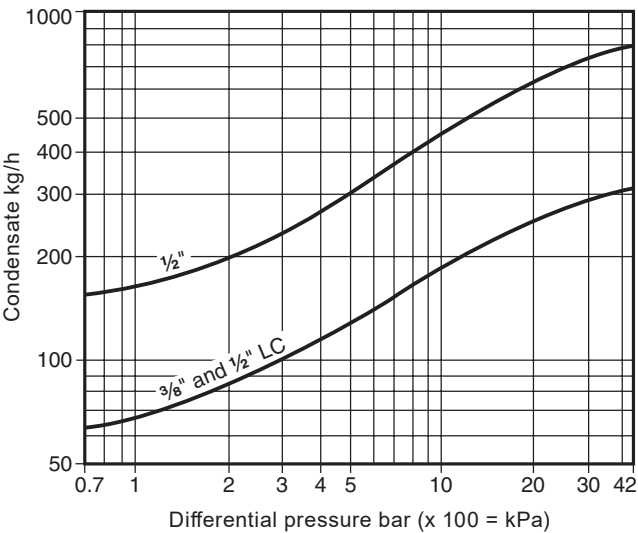
Pressure/temperature limits



- The product **must not** be used in this region.
- For optimum product performance the PMO should not exceed 42 bar g.

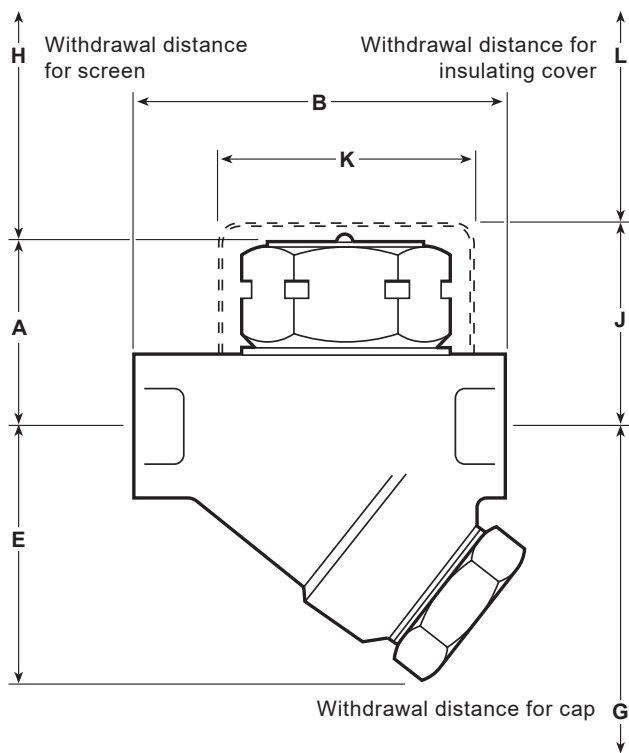
Body design conditions		PN63
PMA	Maximum allowable pressure	63 bar g @ 100 °C
TMA	Maximum allowable temperature	400 °C @ 42 bar g
Minimum allowable temperature		-10 °C
PMO	Maximum operating pressure for saturated steam service	42 bar g
TMO	Maximum operating temperature	255 °C
Minimum operating temperature		0 °C
Note: For lower operating temperatures consult Spirax Sarco.		
PMOB	Maximum backpressure should not exceed 80% of PMOB the inlet pressure under any conditions of operation otherwise the trap may not shut-off.	
Minimum operating differential pressure for satisfactory operation		0.8 bar g
Designed for a maximum cold hydraulic test pressure of:		95 bar g

Capacities



Dimensions/weights (approximate) in mm and kg

Size	A	B	E	G	H	J	K	L	Weight
3/8"	41	78	55	85	41	57	57	38	0.75
1/2" LC	41	78	55	85	41	57	57	38	0.75
1/2"	41	78	55	85	41	57	57	38	0.80



Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P068-24) supplied with the product.

Installation note:

The TD42A is designed for installation with the capsule in a horizontal plane with the 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.

Disposal

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

How to order

Example: 1 off 1/2" Spirax Sarco TD42A thermodynamic steam trap having screwed BSP connections.

Steam traps
Thermodynamic

Spare parts

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

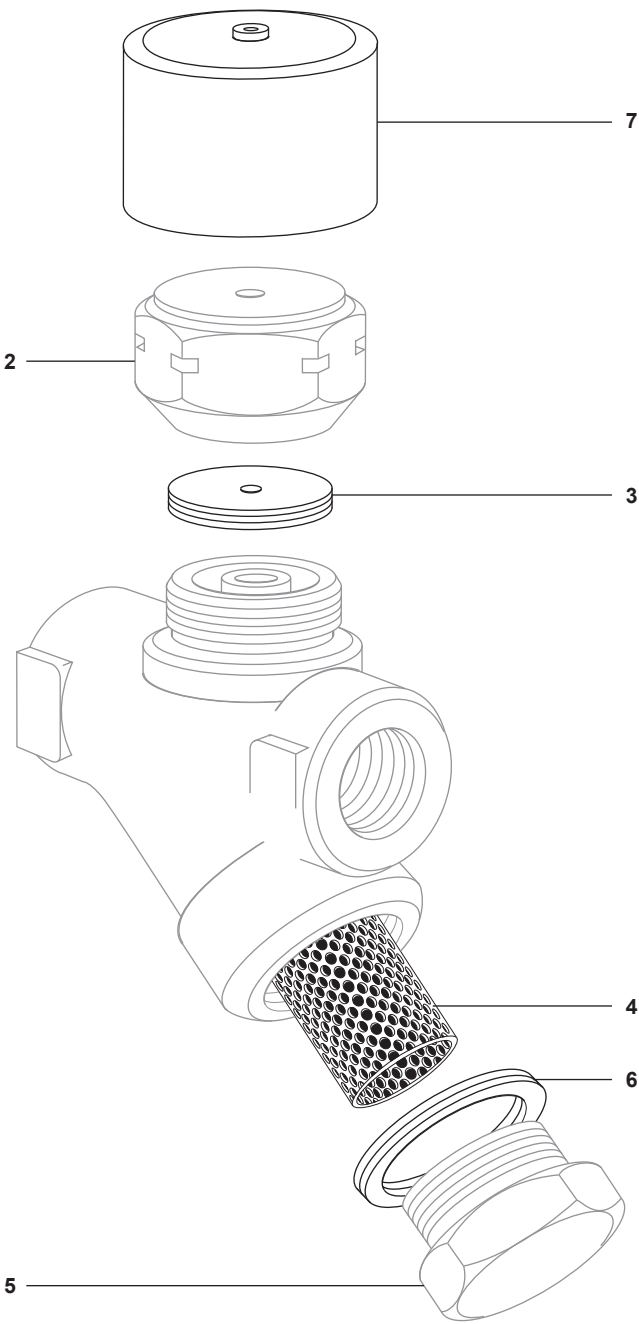
Available spares

Disc and screen	3, 4
Strainer screen and gasket	4, 6
Strainer cap gasket (packet of 3)	6
Insulating cover	7



How to order spares

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

Example: 1 - Strainer screen and gasket for a Spirax Sarco ½" LC TD42A thermodynamic steam trap.



Recommended tightening torques

Item	Part	 or mm		N m
2	(3/8", 1/2" LC)	36 A/F		135 - 150
	(1/2")	41 A/F		180 - 200
5		32 A/F	M28	170 - 190

8.7

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TI-S01-03
CMGT Issue 10

TD42L and TD42H Thermodynamic Steam Traps

Description

The TD42L and TD42H are maintainable thermodynamic steam traps. The TD42L is specifically designed for relatively small condensate loads and therefore is ideal for mains drainage applications. For process type loads the TD42H is available. For those applications where the release of air is a concern, an anti-air-binding disc is available i.e. TD42LA and TD42HA. All external body surfaces have an electroless nickel preparation (ENP) which is both energy saving and oxidation resistant.

Standards

These products fully comply with the requirements of the Pressure Equipment Directive (PED).

Certification

This product is available with a manufactures' Typical Test Report.
Note: All certification/inspection requirements must be stated at time of order placement.

Sizes and pipe connections

TD42L	3/8", 1/2", 3/4" and 1"	screwed BSP or NPT
TD42H	1/2", 3/4" and 1"	screwed BSP or NPT
TD42LA	3/8", 1/2", 3/4" and 1"	screwed BSP or NPT
TD42HA	1/2" and 3/4"	screwed BSP or NPT

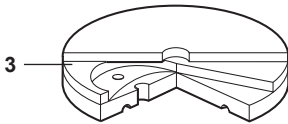
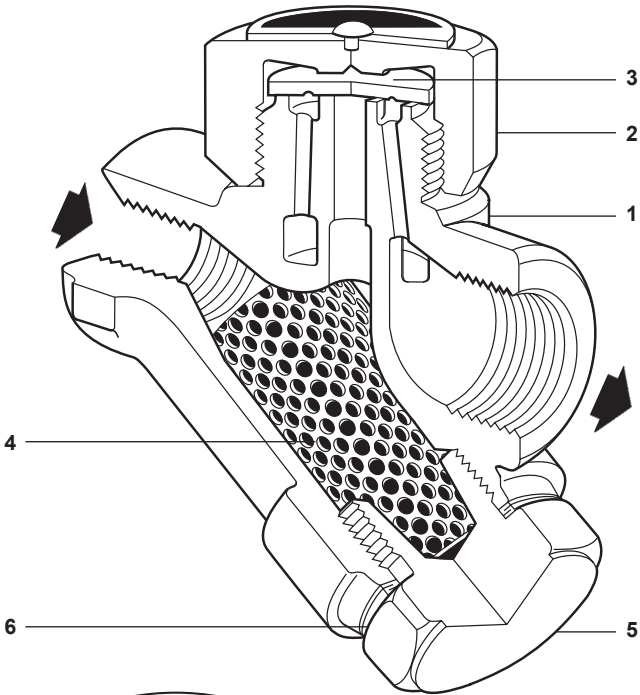
Optional extras

Insulating cover: to prevent the trap being unduly influenced by excessive heat loss such as when subjected to low outside temperatures, wind, rain etc.

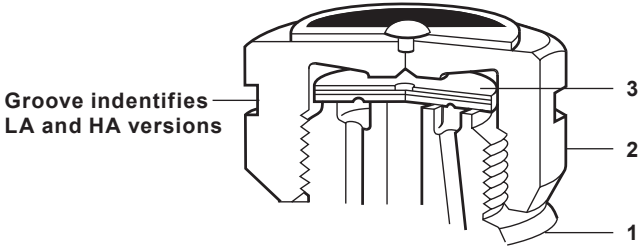
Integral blowdown valve: a BDV1 or BDV2 can be fitted to the strainer cap, alternatively the strainer cap can be drilled, tapped and plugged 3/8" BSP or NPT.

Materials

No.	Part	Material	
1	Body	Stainless steel (with ENP finish)	ASTM A743 Gr. CA 40 F
2	Cap	Stainless steel	AISI 416
3	Disc	Stainless steel	BS 1449 420 S45
4	Strainer screen	Stainless steel	BS 1449 304 S16
5	Strainer cap	Stainless steel	AISI 416
6	Strainer cap gasket	Stainless steel	BS 1449 304 S16
7	Insulating cover (optional extra)	Aluminium	

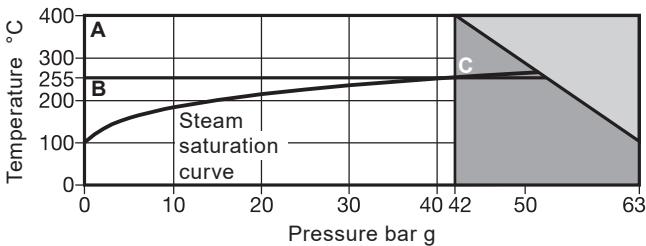


TD42LA and TD42HA
Anti-air-binding disc



Steam traps
Thermodynamic

Pressure/temperature limits (ISO 6552)

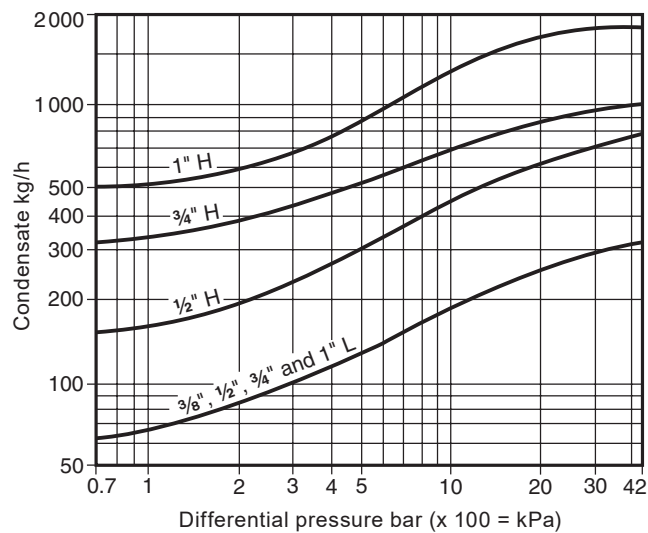


- The product **must not** be used in this region.
- For optimum product performance the PMO should not exceed 42 bar g.

- A - B TD42L and TD42H
- B - C TD42LA and TD42HA

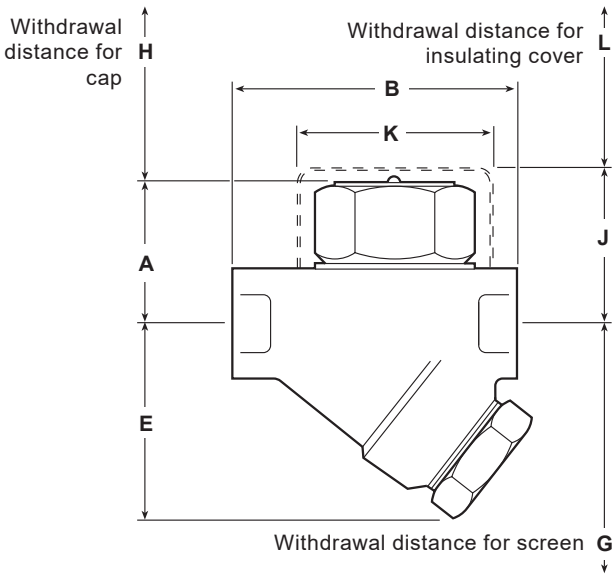
Body design conditions			PN63
PMA	Maximum allowable pressure		63 bar g @ 100 °C
TMA	Maximum allowable temperature		400 °C @ 42 bar g
Minimum allowable temperature			0 °C
PMO	Maximum operating pressure		42 bar g
TMO	Maximum operating temperature	TD42L and TD42H	400 °C @ 42 bar g
		TD42LA and TD42HA	255 °C @ 42 bar g
Minimum operating temperature			0 °C
Minimum inlet pressure for satisfactory operation	TD42L and TD42H		0.25 bar g
	TD42LA and TD42HA		0.80 bar g
PMOB Maximum operating backpressure should not exceed 80% of the upstream pressure			
Designed for a maximum cold hydraulic test pressure of			95 bar g

Capacities



Dimensions/weights (approximate) in mm and kg

Size	A	B	E	G	H	J	K	L	Weight
3/8" L	41	78	55	85	20	52	57	38	0.80
1/2" L	41	78	55	85	20	52	57	38	0.75
3/4" L	44	85	60	100	20	52	57	38	0.95
1" L	48	95	65	100	20	58	57	38	1.50
1/2" H	41	78	55	85	41	57	57	38	0.80
3/4" H	47	90	60	100	41	63	57	38	1.00
1" H	53	96	66	100	41	-	-	-	1.50



Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P068-24) supplied with the product.

Installation note

The TD42L or TD42H should be installed in the horizontal plane, with a small drop leg preceeding it.

Disposal

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

How to order

Example: 1 off Spirax Sarco 1/2" TD42L thermodynamic steam trap having screwed BSP connections.

Steam traps
Thermodynamic

Spare parts

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



Available spares

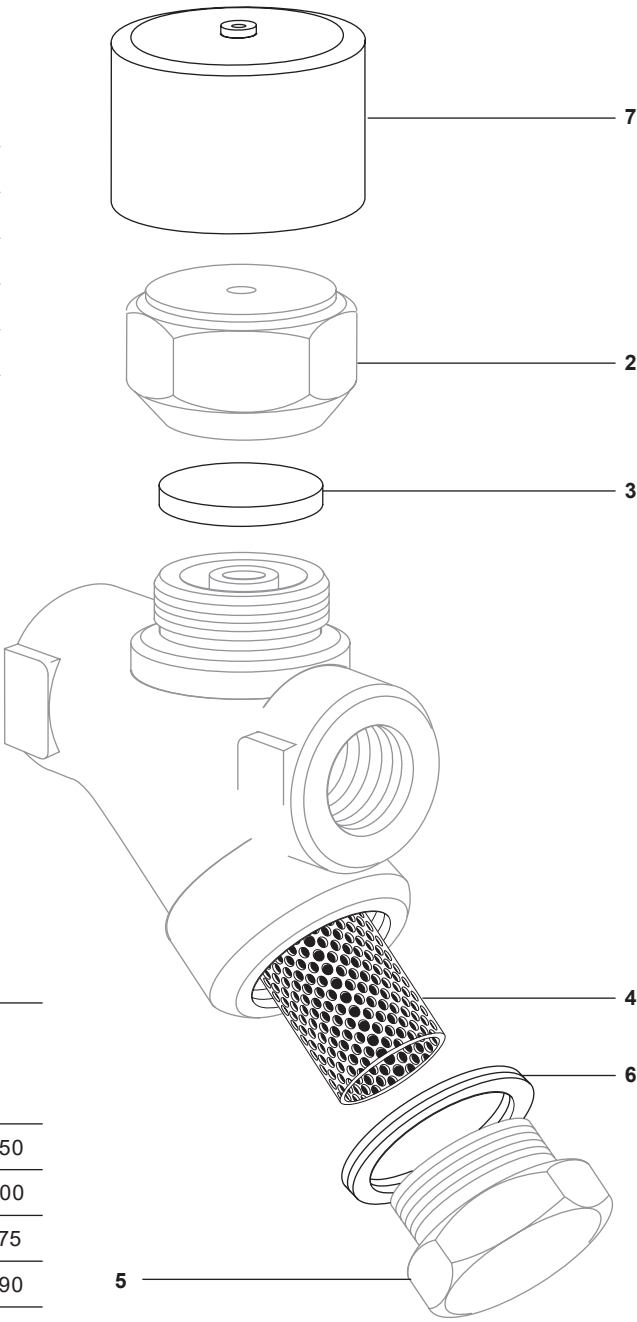
Disc (packet of 3)	(TD42L or TD42H)	3
Disc and strainer screen	(TD42LA or TD42HA)	3, 4, 6
Strainer screen and gasket	(TD42L or TD42H)	4, 6
Insulating cover		7
Strainer cap gasket (packet of 3)		6

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 - Strainer screen and gasket for a Spirax Sarco ½" TD42L thermodynamic steam trap.

Recommended tightening torques

Item	Part	 or 	N m
2	(TD42L - all sizes)	36 A/F	135 - 150
	(TD42H - ½", ¾")	41 A/F	180 - 200
	(TD42H - 1")	55 A/F	250 - 275
5		32 A/F M28	170 - 190



TI-P068-07
CMGT Issue 10

TD42S2

Thermodynamic Steam Traps

Description

The TD42S2 is a thermodynamic steam trap with forged steel body and socket weld ends.

A full range of lower capacity traps ($\frac{1}{2}$ " - 1") designated TD42S2LC are available for applications such as mains drainage or tracing.

Please note:

For low temperature applications down to -46 °C use the TD42S3 (ASTM A350 LF2) - See TI-P068-23 for further information.

Standards

This product fully complies with the requirements of the Pressure Equipment Directive (PED).

Certification

This product is available with certification to EN 10204 3.1.

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

Sizes and pipe connections

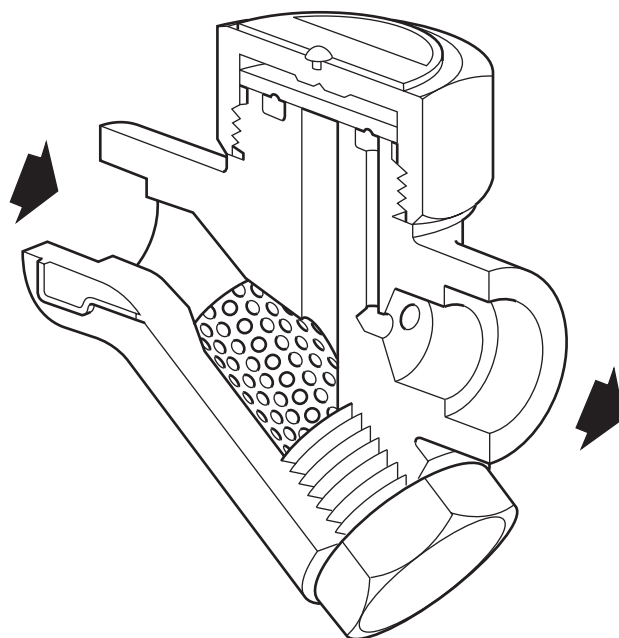
$\frac{1}{2}$ "LC, $\frac{3}{4}$ "LC, 1"LC, $\frac{1}{2}$ ", $\frac{3}{4}$ " and 1" socket weld ends to:

ASME (ANSI) B 16.11 Schedule 80 / BS 3799 Class 3000 lb.

Optional extras

Insulating cover: To prevent the trap being unduly influenced by excessive heat loss such as when subjected to low outside temperatures, wind, rain etc.

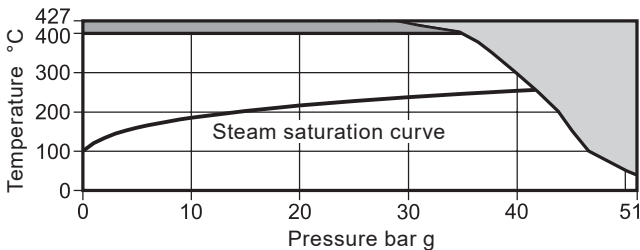
Integral blowdown valve: A BDV1 or BDV2 can be fitted to the strainer cap, alternatively the strainer cap can be drilled, tapped and plugged $\frac{3}{8}$ " BSP or NPT.



Steam traps
Thermodynamic

Pressure/temperature limits (ISO 6552)

Please note:
For low temperature applications down to -46 °C use the TD42S3 (ASTM A350 LF2) - See TI-P068-23 for further information.



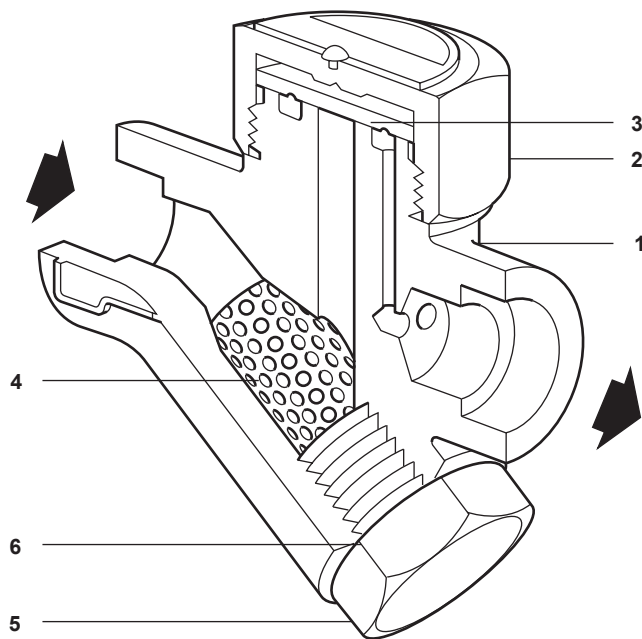
The product **must not** be used in this region.

The product should not be used in this region.

Note: Upon prolonged exposure to temperatures above 425 °C, the carbide phase of steel may be converted to graphite. Permissible but not recommended for prolonged use above 425 °C.

Body design conditions		ANSI/ASME 300
PMA	Maximum allowable pressure	51 bar g @ 38 °C
TMA	Maximum allowable temperature	427 °C @ 28 bar g
Minimum allowable temperature		0 °C
PMO	Maximum operating pressure for saturated steam service	42 bar g
TMO	Maximum operating temperature	400 °C @ 34 bar g
Minimum operating temperature		0 °C
Note: For lower operating temperatures consult Spirax Sarco		
ΔPMX	Maximum differential pressure	42 bar
PMOB Maximum operating backpressure should not exceed 80% of the inlet pressure.		
Minimum inlet pressure for satisfactory operation		0.25 bar g
Designed for a maximum cold hydraulic test pressure of:		76 bar g

Materials

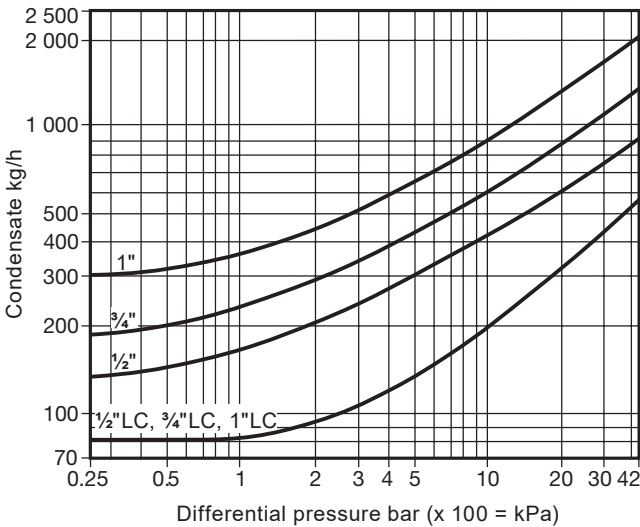


No.	Part	Material	
1	Body	Steel	ASTM A105N
2	Cap	Stainless steel	AISI 416
3	Disc	Stainless steel	BS 1449 420 S45
4	Strainer screen	Stainless steel	AISI 316L
5	Strainer cap	Steel	ASTM A105N
6	Strainer cap gasket	Stainless steel	BS 1449 304 S16
7*	Insulating cover (optional extra)	Aluminium	

* **Note:** Item 7 is shown on the spares illustration overleaf.

Capacities

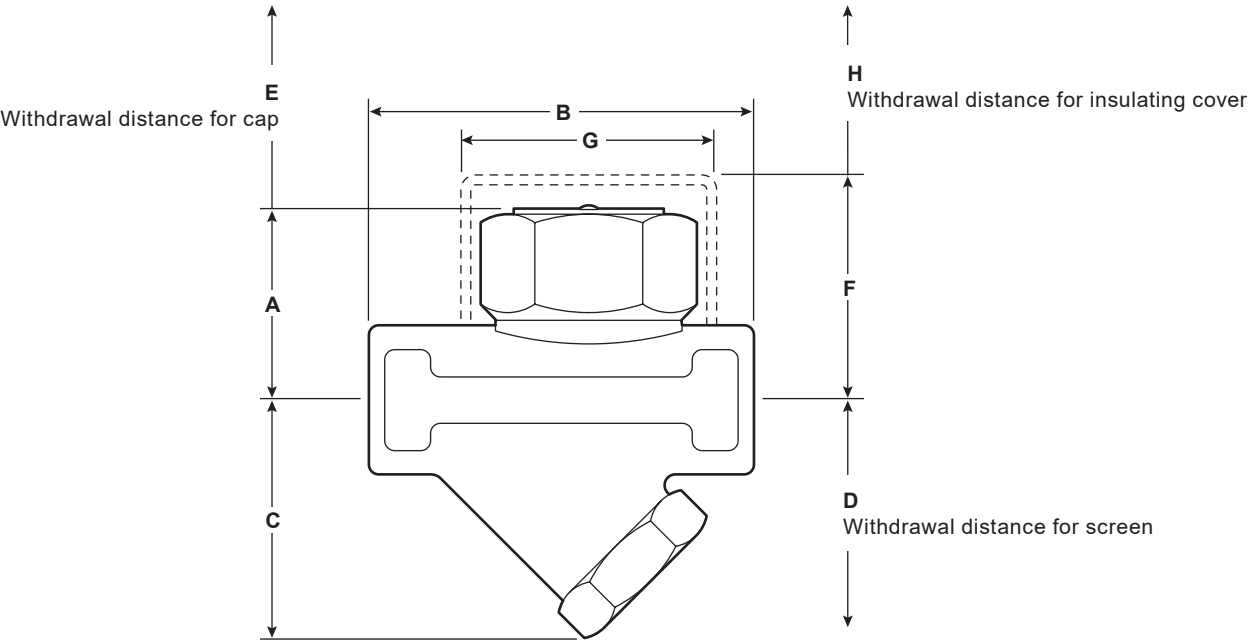
When sizing the TD42S2 it is important to ensure that the correct model is selected. This will ensure the required operation and maximum life. For mains drainage and tracing applications the LC version should be selected irrespective of pipe size.



Steam traps
Thermodynamic

Dimensions/weights (approximate) in mm and kg

Size	A	B	C	D	E	F	G	H	Weight
½"	41	76	46	71	20	57	57	38	0.80
½" LC	40	76	46	71	20	57	57	38	0.75
¾"	47	78	47	72	20	63	57	38	1.00
¾" LC	44	78	47	72	20	57	57	38	1.00
1"	53	92	52	77	25	63	70	38	1.50
1" LC	48	92	52	77	20	60	57	38	1.50



Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P068-37) supplied with the product.

Installation note

The TD42S2 should be installed preferably in the horizontal position. However it can also be installed and operate in other orientations.

Disposal

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

How to order

Example: 1 off Spirax Sarco ½" TD42S2LC thermodynamic steam trap fitted with an insulating cover for outside weather protection and having socket weld end connections.

Spare parts

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

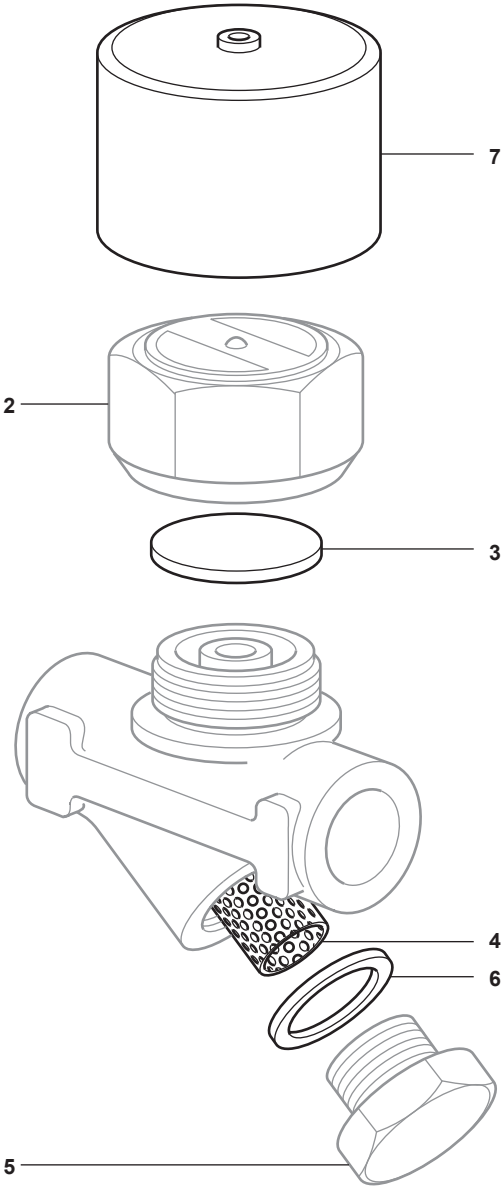
Available spares

Disc	(packet of 3)	3
Strainer screen and gasket		4, 6
Strainer cap gasket	(packet of 3)	6
Insulating cover		7



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 Strainer screen and gasket for a Spirax Sarco ½" TD42S2 thermodynamic steam trap.



Recommended tightening torques

Item	Part	 or 	N m
2	½" LC	36 A/F	87 - 97
	¾" LC	36 A/F	87 - 97
	1" LC	36 A/F	87 - 97
	½"	41 A/F	100 - 110
	¾"	41 A/F	100 - 110
	1"	55 A/F	140 - 160
5	(all sizes)	27 A/F M24	120 - 135

spirax
sarco

TD52M, TD52MLC,
TD52MA and TD52MLCA
Thermodynamic Steam Traps

TI-P068-18
ST Issue 4

Description

The **TD52M** is a maintainable thermodynamic steam trap manufactured in stainless steel specifically designed for relatively small condensate loads, such as steam mains drainage. For very low condensate loads, a low capacity version is available. This version is designated by the letters LC e.g.: **TD52MLC**. For those applications where the release of air is a concern an anti-air-binding disc is available. This version is designated by the letter A, e.g.: **TD52MA** and **TD52MLCA**.

Optional extra

An **insulating cover** is available to prevent the trap being unduly influenced by excessive heat loss such as when subjected to low outside temperatures, wind, rain etc. **Not available for the 1" size.**

Standards

These products fully comply with the requirements of the European Pressure Equipment Directive 97/23/EC.

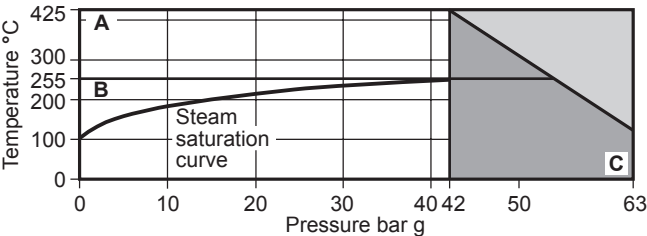
Certification

These products are available with certification to EN 10204 3.1. **Note:** All certification/inspection requirements must be stated at the time of order placement.

Sizes and pipe connections

Screwed BSP	TD52M and TD52MA	1/4" 3/8", 1/2", 3/4" and 1"
or NPT	TD52MLC and TD52MLCA	1/2"

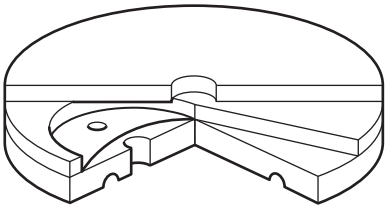
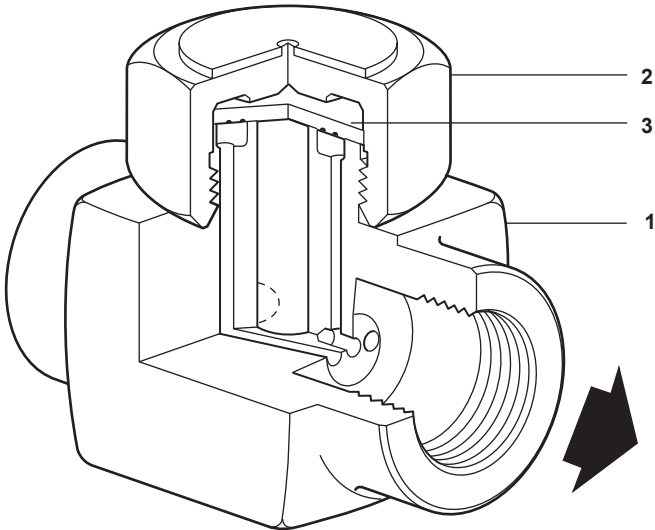
Pressure/temperature limits



- The product **must not** be used in this region.
- For optimum product performance the PMO should not exceed 42 bar g.

A - C TD52M and TD52MLC
B - C TD52MA and TD52MLCA

Body design conditions		PN63
PMA	Maximum allowable pressure	63 bar g @ 120°C
TMA	Maximum allowable temperature	425°C @ 42 bar g
Minimum allowable temperature		0°C
PMO	Maximum operating pressure for saturated steam service	42 bar g
TMO	Maximum operating temperature	TD52M and MLC 425°C @ 42 bar g TD52MA and MLCA 255°C @ 42 bar g
Minimum operating temperature		0°C
PMOB	Maximum operating backpressure must not exceed 80% of the upstream pressure.	
Minimum operating differential pressure for satisfactory operation		TD52M and MLC 0.25 bar TD52MA and MLCA 0.8 bar
Designed for a maximum cold hydraulic test pressure of 95 bar g		



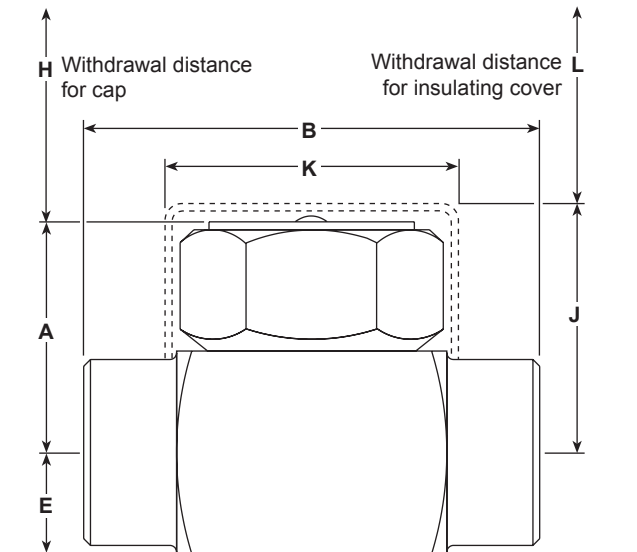
Anti-air-binding disc

Materials

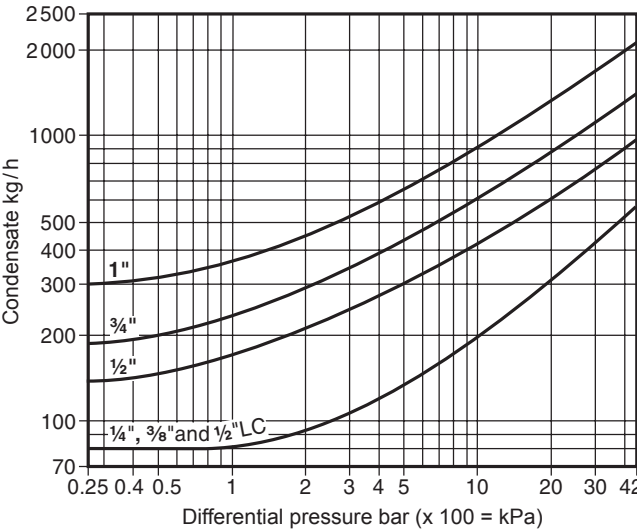
No.	Part	Material
1	Body	Stainless steel AISI 420 F
2	Cap	Stainless steel AISI 416
3	Disc	Stainless steel BS 1449 420 S45
4	Insulating cover (optional extra)	Aluminium BS 1470 SIC M

Dimensions/weights (approximate) in mm and kg

Size	A	B	E	H	J	K	L	Weight
¼"	37	54	13	41	53	57	38	0.45
⅜"	37	54	13	41	53	57	38	0.43
½" LC	38	65	15	41	55	57	38	0.47
½"	39	70	15	41	55	57	38	0.60
¾"	43	80	20	41	59	57	38	0.90
1"	51	89	23	41	-	-	-	1.40



Capacities



Safety information, installation and maintenance
For full details see the Installation and Maintenance Instructions (IM-P068-31) supplied with the product.

Installation note:
Preferably fitted in a horizontal pipe but can be fitted in other positions.

How to order
Example: 1 off Spirax Sarco ½" TD52MLC thermodynamic steam trap having screwed BSP connections.
Note: Where required the unit can be fitted with a special anti-air-binding disc but must be specified when placing an order e.g. TDM52MLCA.

Available spares

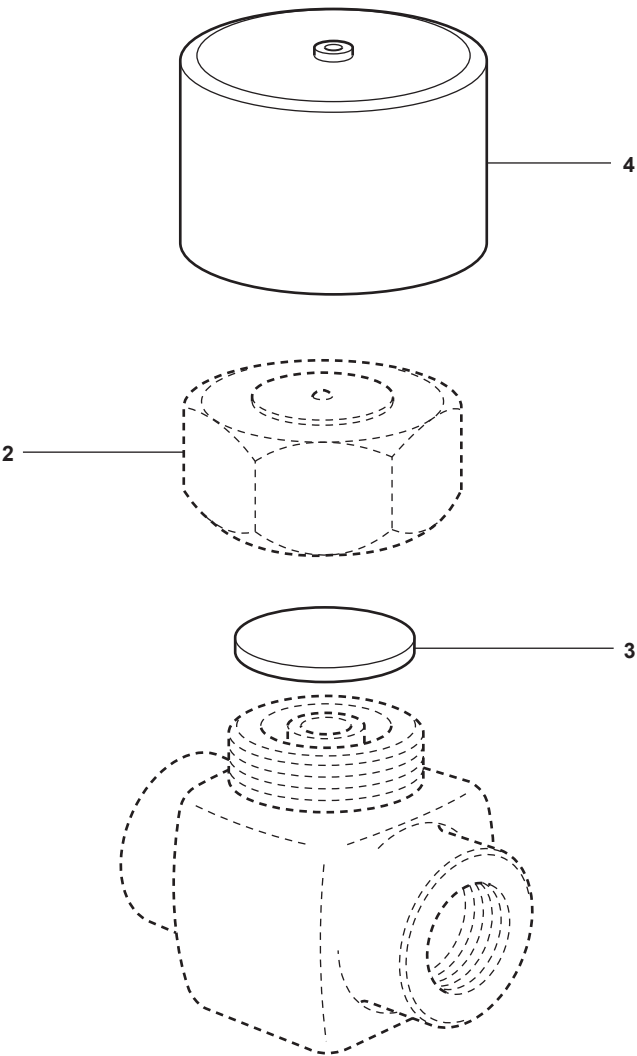
The spare parts available are shown in solid outline. Parts drawn in broken line are not supplied as spares.

Available spares



Disc	(packet of 3)	3
Insulating cover	(Not 1" size)	4

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 - Packet of 3 discs for a Spirax Sarco ½" TD52MLC thermodynamic steam trap.



Recommended tightening torques

Item	Part	 or  mm	N m
2	¼"	36 A/F	180 - 200
	⅜"	36 A/F	180 - 200
	½"	36 A/F	180 - 200
	¾"	41 A/F	180 - 200
	1"	55 A/F	250 - 275

