# 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
⅜", ½" LC and ½" screwed BSP (BS 21 parallel) or NPT.

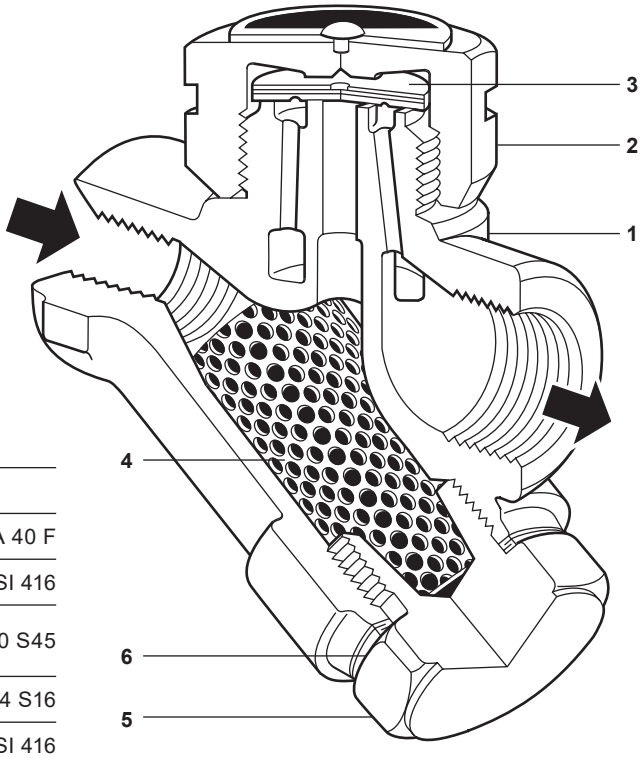
## Optional extras

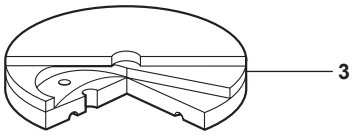
**Insulating cover:** to prevent the trap being unduly influenced by excessive heat loss such as when subjected to low outside temperatures, wind, rain, etc.

**Integral blowdown valve:** a BDV1 or BDV2 can be fitted to the strainer cap, alternatively the strainer cap can be drilled, tapped and plugged ⅜" BSP or NPT.

## Materials

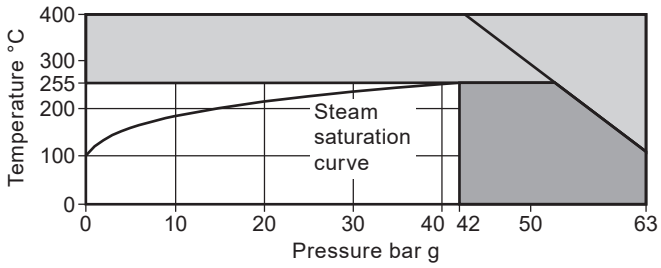
| No. | Part | Material | |
|---|---|---|---|
| 1 | Body | Stainless steel | ASTM A743 Gr. CA 40 F |
| 2 | Cap | Stainless steel | AISI 416 |
| 3 | Disc | Stainless steel Bi-metal | BS 1449 420 S45 |
| 4 | Strainer screen | Stainless steel | BS 1449 304 S16 |
| 5 | Strainer cap | Stainless steel | AISI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




**Anti-air-binding disc**

## Pressure/temperature limits

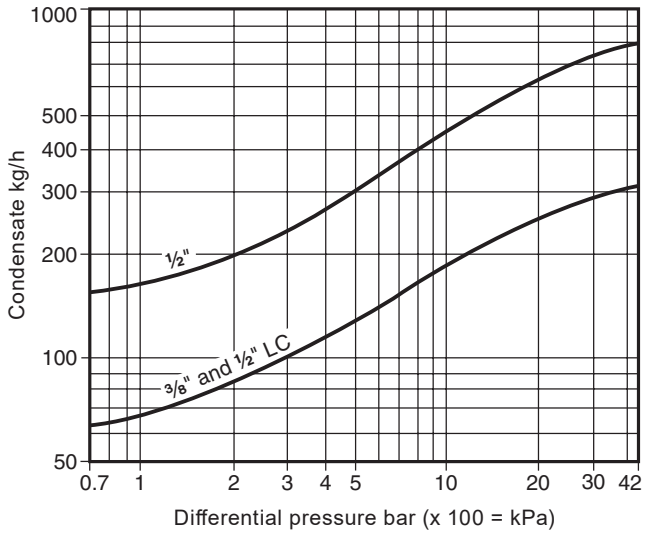



The product **must not** be used in this region.

For optimum product performance the PMO should not exceed 42 bar g.

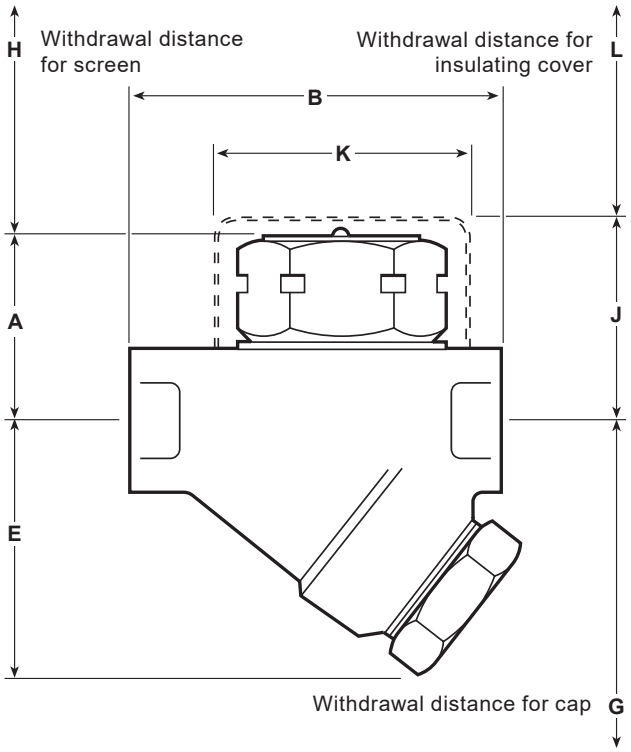
| | | |
|---|---|---|
| Body design conditions | | PN63 |
| PMA | Maximum allowable pressure | 63 bar g @ 100 °C |
| TMA | Maximum allowable temperature | 400 °C @ 42 bar g |
| Minimum allowable temperature | | -10 °C |
| PMO | Maximum operating pressure for saturated steam service | 42 bar g |
| TMO | Maximum operating temperature | 255 °C |
| Minimum operating temperature<br>**Note:** For lower operating temperatures consult Spirax Sarco. | | 0 °C |
| 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 |
|---|---|---|---|---|---|---|---|---|---|
| ⅜" | 41 | 78 | 55 | 85 | 41 | 57 | 57 | 38 | 0.75 |
| ½" LC | 41 | 78 | 55 | 85 | 41 | 57 | 57 | 38 | 0.75 |
| ½" | 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 ½" Spirax Sarco TD42A thermodynamic steam trap having screwed BSP connections.

## Spare parts

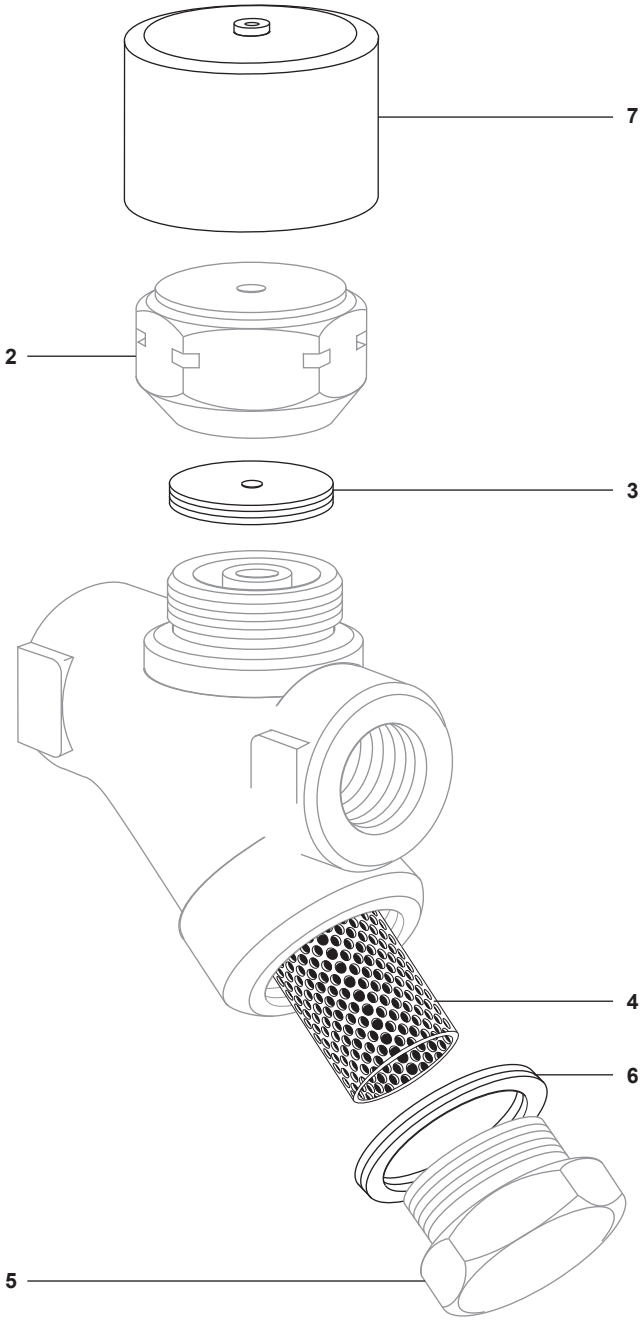
The spare parts available are shown in solid outline.
Parts drawn in a grey line are not supplied as spares.

### Available spares

| | |
|---|---|
| Disc 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** | (⅜", ½" LC) | 36 A/F | | 135 - 150 |
| | (½") | 41 A/F | | 180 - 200 |
| **5** | | 32 A/F | M28 | 170 - 190 |