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# spirax sarco

TI-P068-18  
ST Issue 4

## TD52M, TD52MLC, TD52MA and TD52MLCA Thermodynamic Steam Traps

### 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

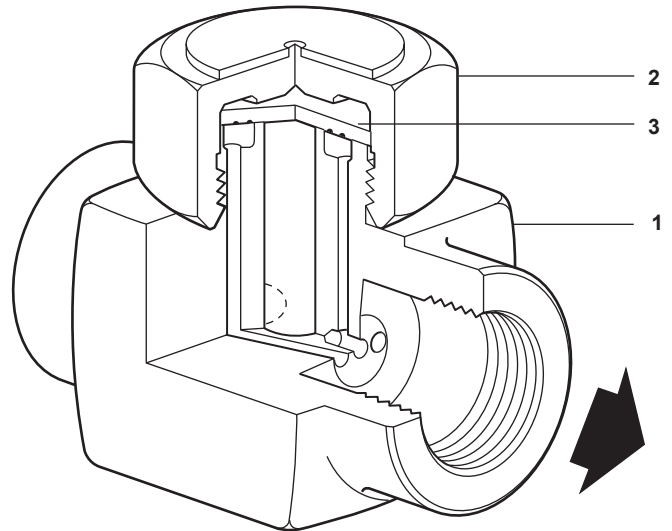
These products fully comply with the requirements of the European Pressure Equipment Directive 97/23/EC.

### Certification

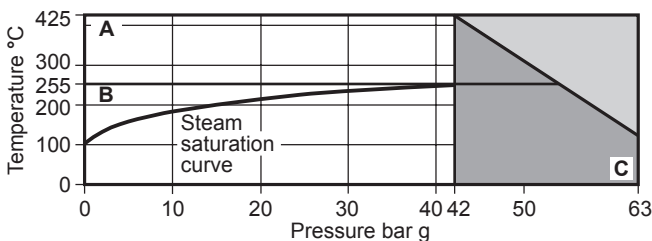
These products are available with certification to EN 10204 3.1. **Note:** All certification/inspection requirements must be stated at the time of order placement.

### 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"



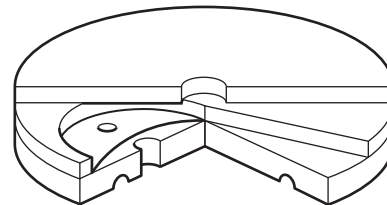
### Pressure/temperature limits



- 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

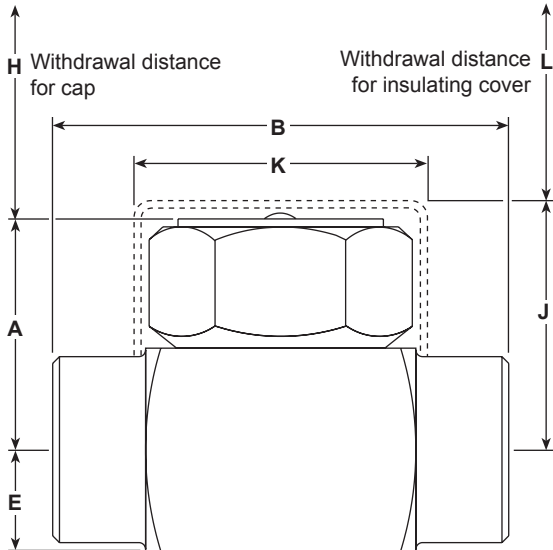
### Materials

| 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   |

### First for Steam Solutions

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

| Size    | A  | B  | E  | H  | J  | K  | L  | Weight |
|---------|----|----|----|----|----|----|----|--------|
| 1/4"    | 37 | 54 | 13 | 41 | 53 | 57 | 38 | 0.45   |
| 3/8"    | 37 | 54 | 13 | 41 | 53 | 57 | 38 | 0.43   |
| 1/2" LC | 38 | 65 | 15 | 41 | 55 | 57 | 38 | 0.47   |
| 1/2"    | 39 | 70 | 15 | 41 | 55 | 57 | 38 | 0.60   |
| 3/4"    | 43 | 80 | 20 | 41 | 59 | 57 | 38 | 0.90   |
| 1"      | 51 | 89 | 23 | 41 | -  | -  | -  | 1.40   |



**Available spares**

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

**Available spares**

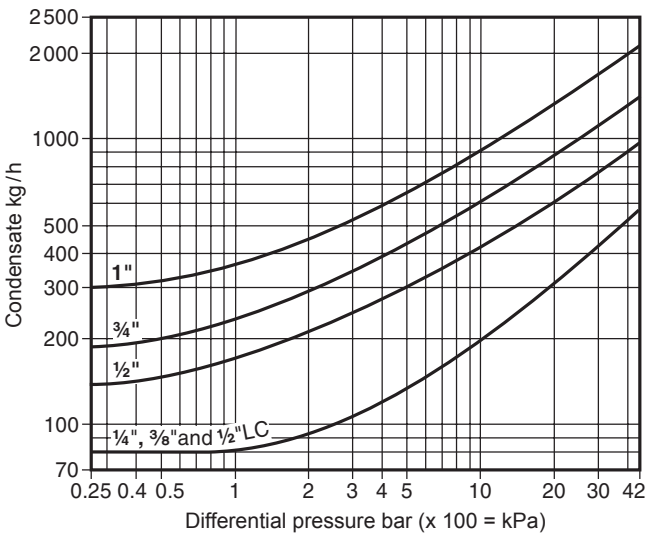
|                  |               |          |
|------------------|---------------|----------|
| Disc             | (packet of 3) | <b>3</b> |
| Insulating cover | (Not 1" size) | <b>4</b> |

**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 1/2" TD52MLC thermodynamic steam trap.

**Capacities**



**Safety information, installation and maintenance**

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

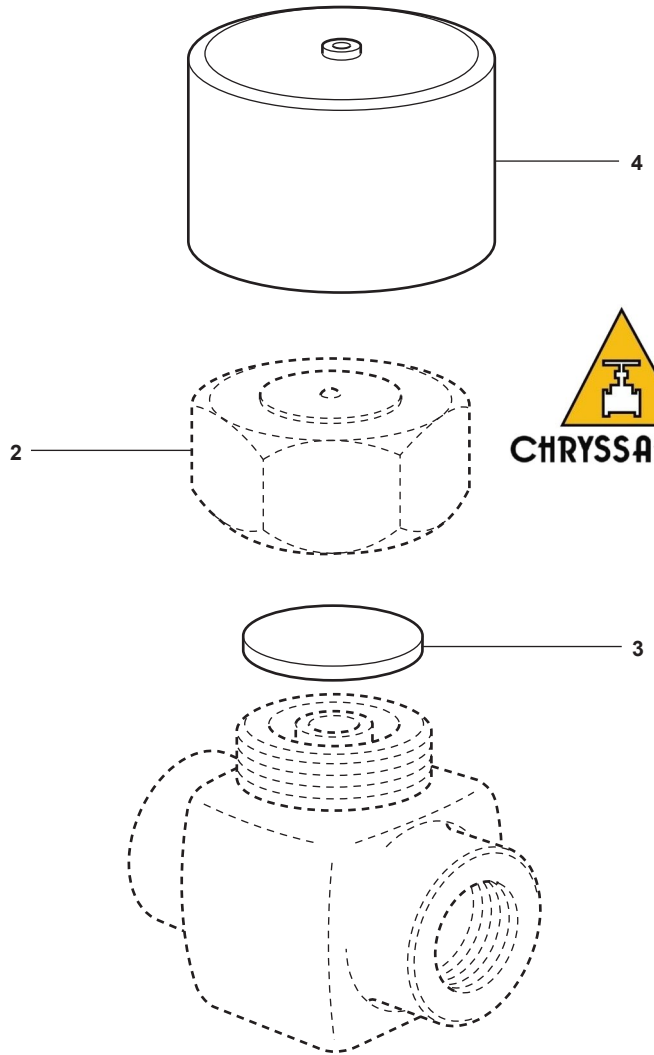
**Installation note:**

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

**How to order**

**Example:** 1 off Spirax Sarco 1/2" 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.



**Recommended tightening torques**

| Item | Part | or<br>mm | N m       |
|------|------|----------|-----------|
| 2    | 1/4" | 36 A/F   | 180 - 200 |
|      | 3/8" | 36 A/F   | 180 - 200 |
|      | 1/2" | 36 A/F   | 180 - 200 |
|      | 3/4" | 41 A/F   | 180 - 200 |
|      | 1"   | 55 A/F   | 250 - 275 |