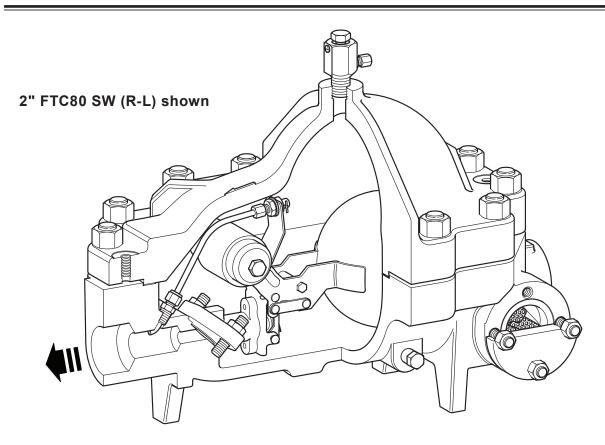


TI-P179-03 CMGT Issue 5

## **Cast Steel**

## DN40 and DN50 Ball Float Steam Trap with EN Body



## **Description**

As standard, the FTC80 ball float steam trap is supplied with a right to left (R-L) flow configuration having horizontal connections and has provision for adding an air venting option; Please note that the unit is supplied with a <sup>3</sup>/<sub>4</sub>" socket weld connection in the cover with a plug screwed into the fitting. It has been designed for floor mounting and is suitable for most high-pressure process and drainage applications. Its simple robust ball float mechanism ensures excellent resistance to waterhammer. All internals are easily accessible for in-line maintenance and a drain port allows full body drainage. It has a large maintainable strainer screen that extends service intervals and is located in an accessible flanged chamber.

### Available options

Factory fitted external BDV2 air vent having a ½" BSP screwed connection

Factory fitted internal fixed bleed for continuous discharge of air and other incondensable gasses

Note: As standard the unit is supplied with a 3/4" socket weld connection in the cover with a 3/4" BSP screwed plug fitted.

### Standard

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 for the body, cover, fasteners, screen flange and BDV2 air vent. **Note:** All certification/inspection requirements must be stated at the time of order placement.

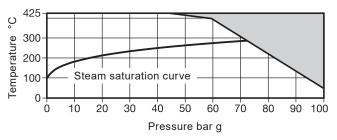
# Sizes and pipe connections DN40 and DN50 socket weld BS 3799.

DN40 and DN50 flanged EN 1092 PN100.

Note: Other connections are available upon request but may limit the operating range - Please consult Spirax Sarco for further information.

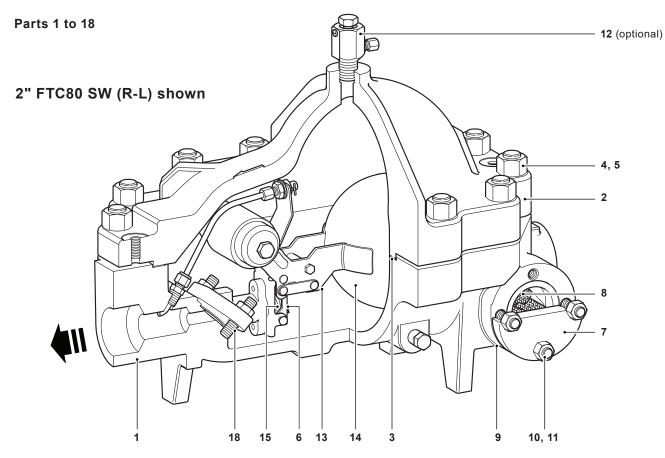
Drain plug connection is 3/8" screwed BSP as standard.

## **Pressure/temperature limits**



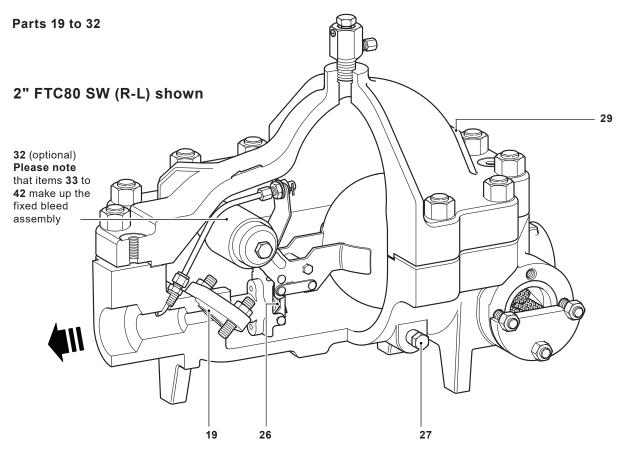
The product **must not** be used in this region.

| Body design conditions                     |                                 | PN100  |  |  |
|--|---------------------------------|--------|--|--|
| PMA Maximum allowable pressure             | 100 bar g @ 50 °C               |        |  |  |
| TMA Maximum allowable temperature          | A Maximum allowable temperature |        |  |  |
| Minimum allowable temperature              |                                 | -29 °C |  |  |
| PMO Maximum operating pressure for sat     | 70 bar g                        |        |  |  |
| TMO Maximum operating temperature          | 425 °C @ 46 bar g               |        |  |  |
| Minimum operating temperature              |                                 | D° 0   |  |  |
|  | FTC80-45                        | 45 bar |  |  |
| ∆PMX Maximum differential pressure         | FTC80-62                        | 62 bar |  |  |
|  | FTC80-80                        | 70 bar |  |  |
| Designed for a maximum cold hydraulic test | 150 bar g                       |        |  |  |



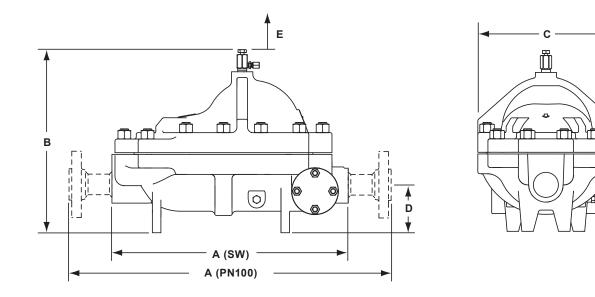
| No.        | Part                    | Material        |                          |  |  |
|------------|-------------------------|-----------------|--------------------------|--|--|
| 1          | Body                    | Cast steel      | GP240GH 1.0619           |  |  |
| 2          | Cover                   | Cast steel      | GP240GH 1.0619           |  |  |
| 3          | Cover gasket            | Tanged graphite | SST100                   |  |  |
| 4          | Cover stud              | Steel           | ASTM A193 B16            |  |  |
| 5          | Cover nuts              | Steel           | ASTM A194 Gr. 4          |  |  |
| 6          | Valve head and retainer | Stainless steel |                          |  |  |
| 7          | Strainer flange         | Steel           | ASTM A105N               |  |  |
| 8          | Strainer screen         | Stainless steel |                          |  |  |
| 9          | Strainer gasket         | Tanged graphite | SST100                   |  |  |
| 10         | Strainer studs          | Steel           | ASTM A193 B16            |  |  |
| 11         | Strainer nuts           | Steel           | ASTM A194 Gr. 4          |  |  |
| 12         | Air vent (optional)     | Stainless steel | (See BDV2 in TI-P600-01) |  |  |
| 13         | Mechanism assembly      | Stainless steel |                          |  |  |
| 14         | Float                   | Stainless steel |                          |  |  |
| 15         | Valve seat              | Titanium        |                          |  |  |
| 18a<br>18b | Assembly bolts and nuts | Stainless steel | A4-80                    |  |  |

## Materials continued on next page



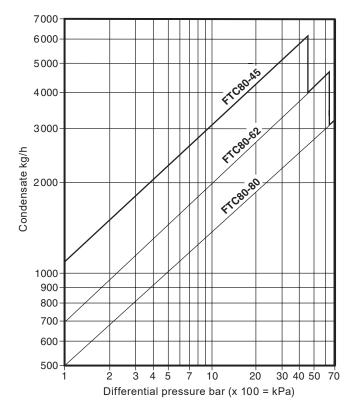
| No.  | Part                      |    |               | Material                       | Material       |  |  |  |  |
|------|---------------------------|----|---------------|--------------------------------|----------------|--|--|--|--|
| 19   | Assembly gasket           |    |               | Reinforced exfoliated graphite |                |  |  |  |  |
| 26   | Gasket                    |    |               | Stainless steel                |                |  |  |  |  |
| 27   | Drain plug                |    |               | Steel ASTM A1                  |                |  |  |  |  |
| 28   | Air vent plug (not shown) |    |               | Steel ASTM A                   |                |  |  |  |  |
| 29   | Name-plate                |    |               | Stainless steel                |                |  |  |  |  |
| 30 * | Flange pipe               |    |               | Steel                          | ASTM A106B     |  |  |  |  |
| 31 * | Flange                    |    |               | Steel                          | ASTM A105N     |  |  |  |  |
|      | Fixed bleed assembly      | 33 | Bleed orifice | Stainless steel                | ASTM A276 431  |  |  |  |  |
|      |                           | 34 | Pipe support  | Stainless steel                | 304 or 316     |  |  |  |  |
|      |                           | 35 | Washer        | Stainless steel                |                |  |  |  |  |
|      |                           | 36 | Lock-nut      | Stainless steel                | A2-70          |  |  |  |  |
|      |                           | 37 | Nut           | Stainless steel                | 316            |  |  |  |  |
| 32   |                           | 38 | Ferrule       | Stainless steel                | 316L           |  |  |  |  |
|      |                           | 39 | Bleed pipe    | Stainless steel                | ASTM A269 304  |  |  |  |  |
|      |                           | 40 | Stud          | Stainless steel                | 316 S11 or S13 |  |  |  |  |
|      |                           | 41 | Twin ferrule  | Stainless steel                | 316 S11 or S13 |  |  |  |  |
|      |                           | 42 | Nut           | Stainless steel                | 316 S11 or S13 |  |  |  |  |

\* Note: Items 30 and 31 the flange and flange pipe are not shown.



|            | A              |                  | В    |      |     |       | Withdrawal distance |             | Weight         |                     |
|------------|----------------|------------------|------|------|-----|-------|---------------------|-------------|----------------|---------------------|
| Size       | Socket<br>weld | Flanged<br>PN100 | BDV2 | Plug | С   | D     | E<br>Cover          | F<br>Screen | Socket<br>weld | Flanged<br>ASME 600 |
| DN40 (1½") | 555            | 755              | 430  | 390  | 324 | 110.5 | 55                  | 260         | 112            | 118                 |
| DN50 (2")  | 555            | 785              | 430  | 390  | 324 | 110.5 | 55                  | 260         | 112            | 118                 |

## Capacities (in accordance with ISO 7842)



# Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P179-06) supplied with the product.

## Installation note

The FTC80 must be installed with the direction of flow as indicated on the body, and with the float arm in a horizontal plain so that it rises and falls vertically. Integral legs assist stable floor mounting. Please note that appropriate high temperature jointing compound must be used on the drain plug and air vent plug threads.

### Disposal

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

Please visit the Spirax Sarco product compliance web pages https://www.spiraxsarco.com/product-compliance for up to date information on any substances of concern that may be contained within this product. Where no additional information is provided on the Spirax Sarco product compliance web page, this product may be safely recycled and/or disposed providing due care is taken.

Always check your local recycling and disposal regulations.

## How to order

**Example:** 1 off Spirax Sarco DN40 FTC80-45 (R-L) ball float steam trap with flanged EN 1092 PN100 connections and screwed BDV2 manual air vent complete with 3.1 certification for the FTC80 and BDV2.

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## Spare parts

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

### Available spares

Page 6 of 6

| Mechanism maintenance kit, including float | 3, 13, 18a,18b, 19    |
|--|-----------------------|
| Seat and ball head                         | 3, 15, 16, 17, 19, 26 |
| Cover gasket (3 off)                       | 3                     |
| Strainer screen                            | 8, 9                  |
| Strainer gasket (3 off)                    | 9                     |
| Mechanism and fixed bleed maintenance kit  | 3, 13, 18a, 18b,      |

### 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, including pressure range.

**Example:** 1 off Seat and ball head set for a Spirax Sarco DN40 FTC80-45 ball float steam trap.

