



TI-P005-10
 ST Issue 2

BPC32F and BPC32YF

Carbon Steel Integrally Flanged

Balanced Pressure Thermostatic Steam Traps

Description

The BPC32F and BPC32YF are carbon steel maintainable balanced pressure thermostatic steam traps having integrally flanged straight connections.

The BPC32F has an integral flat strainer screen and the BPC32YF has an integral cylindrical Y-type strainer. All pressure bearing components are produced by TÜV approved suppliers in accordance with AD-Merkblatt WO/TRD100. Both traps are unaffected by waterhammer and are available as follows:-

Standard units BPC32F and BPC32YF having 'STD' fill capsule

Also available BPC32CVF and BPC32YCVF having 'STD' fill capsule and check valve.

Note: When placing an order always state capsule fill.

Capsule fill and operation:

Standard capsule - Is marked with 'STD' for operation at approximately 12°C below steam saturation temperature.

Optionally - The capsule can be supplied for sub-cooled 'SUB' operation at approximately 24°C below steam saturation temperature or near-to-steam 'NTS' operation at approximately 6°C below steam temperature.

Standards

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

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.

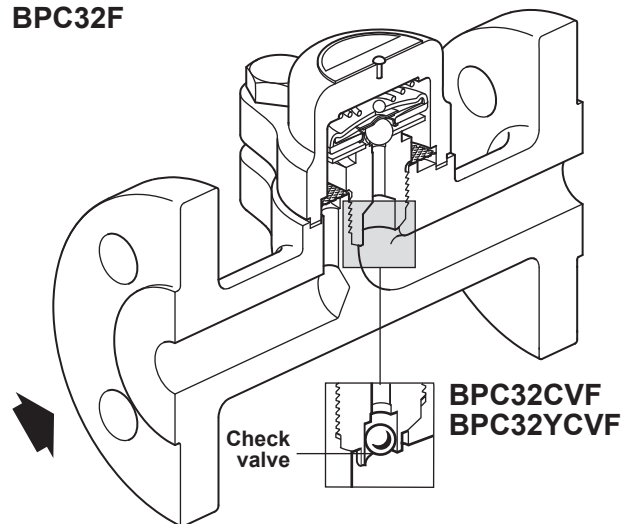
Sizes and pipe connections

DN15, DN20 and DN25

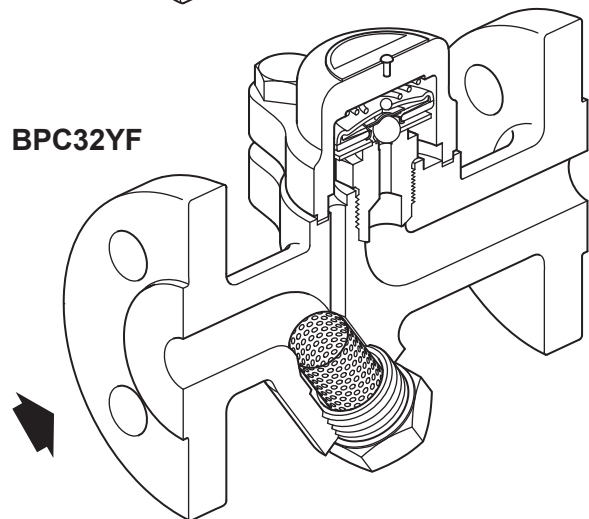
Standard flanges: EN 1092 PN40, ASME (ANSI) B 16.5 Class 150 or ASME (ANSI) B 16.5 Class 300.

For other connections please consult Spirax Sarco.

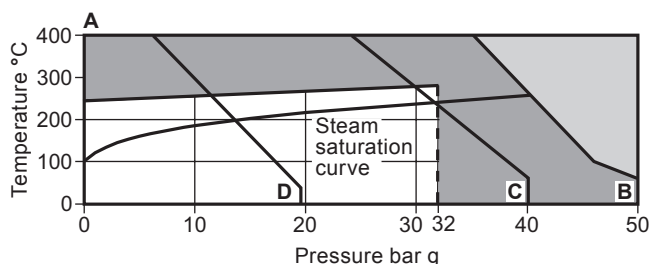
BPC32F



BPC32YF



Pressure/temperature limits (ISO 6552)

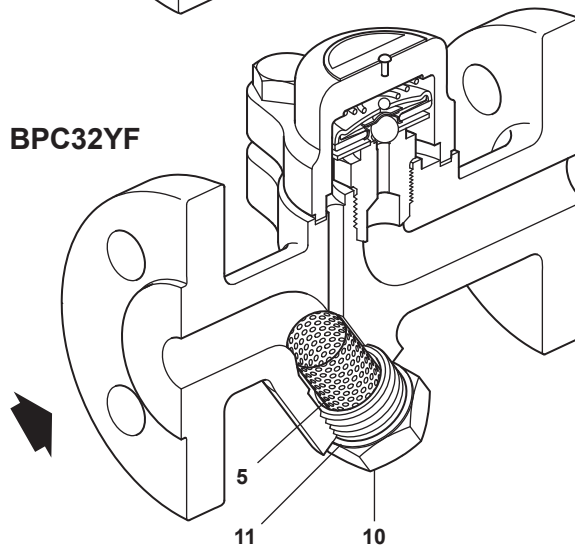
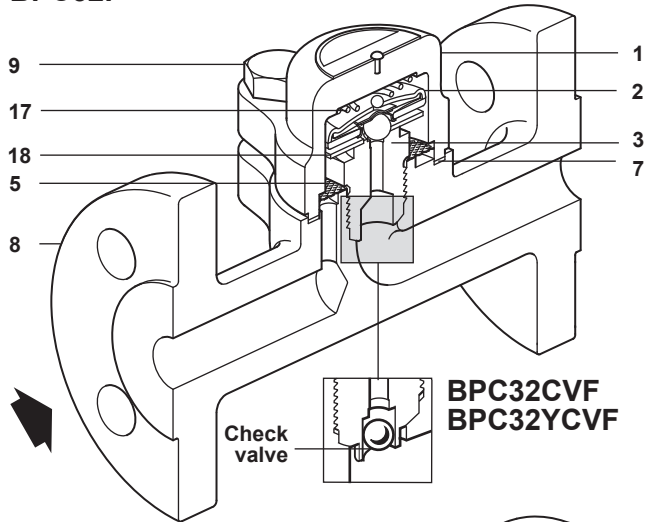


The product **must not** be used in this region.
 The product should not be used in this region or beyond its operating range as damage to the internals may occur.

A - B Flanged ASME (ANSI) 300.
A - C Flanged EN 1092 PN40.
A - D Flanged ASME (ANSI) 150.

| | | |
|---|--|------------------|
| Body design conditions | | ASME (ANSI) 300 |
| PMA | Maximum allowable pressure | 50 bar g @ 50°C |
| TMA | Maximum allowable temperature | 400°C @ 35 bar g |
| Minimum allowable temperature | | -60°C |
| PMO | Maximum operating pressure for saturated steam service | 32 bar g @ 281°C |
| TMO | Maximum operating temperature | 281°C @ 32 bar g |
| Minimum operating temperature | | 0°C |
| Designed for a maximum cold hydraulic test pressure of 75 bar g | | |

BPC32F



Materials

| No. | Part | Material |
|-----|---------------------|---|
| 1 | Cover | Carbon steel DIN 17243 C22.8 (W/S 1.0460) ASTM A105N |
| 2 | Capsule | Stainless steel |
| 3 | Valve seat | Stainless steel BS 970 431 S29 |
| 5 | Strainer screen | Stainless steel AISI 304 |
| 7 | Cover gasket | Stainless steel reinforced exfoliated graphite |
| 8 | Body | Carbon steel 1.0619+N ASTM A216 WCB |
| 9 | Cover bolts | Stainless steel (M10 x 30) A2-70 |
| 10 | Strainer cap | Carbon steel DIN 17243 C22.8 (W/S 1.0460) ASTM A105N |
| 11 | Strainer cap gasket | Stainless steel BS 1449 304 S16 |
| 17 | Spring | Stainless steel |
| 18 | Spacer plate | Stainless steel |

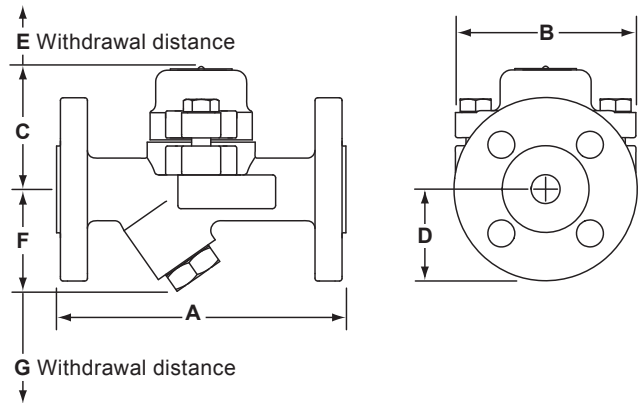
Dimensions/weights (approximate) in mm and kg

BPC32F

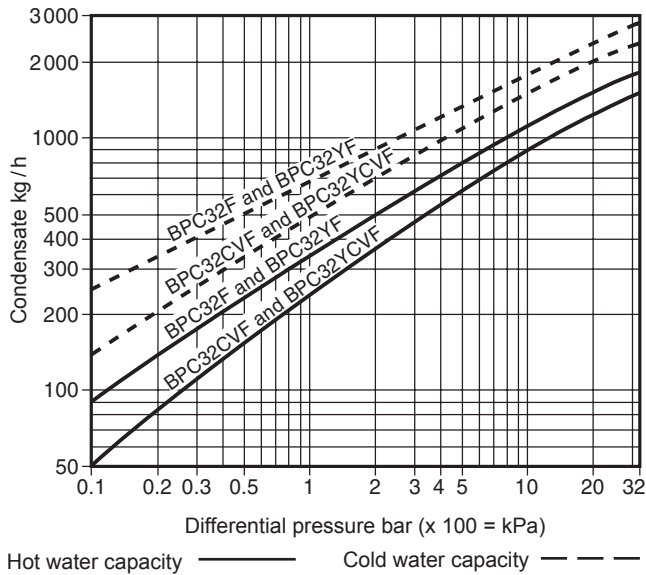
| Size | A | B | C | D | E | F | G | Weight |
|------|-----|----|----|----|----|---|---|--------|
| DN15 | 150 | 94 | 64 | 17 | 37 | - | - | 2.9 |
| DN20 | 150 | 94 | 64 | 19 | 37 | - | - | 3.5 |
| DN25 | 160 | 94 | 64 | 23 | 37 | - | - | 4.1 |

BPC32YF

| Size | A | B | C | D | E | F | G | Weight |
|------|-----|----|----|---|----|----|----|--------|
| DN15 | 150 | 94 | 64 | - | 37 | 55 | 28 | 3.1 |
| DN20 | 150 | 94 | 64 | - | 37 | 56 | 28 | 3.7 |
| DN25 | 160 | 94 | 64 | - | 37 | 58 | 28 | 4.4 |



Capacities



Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P005-02) supplied with the product.

Installation note:

The BPC32F and BPC32YF are designed for installation in any position, horizontal or vertical. 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

These products are recyclable. No ecological hazard is anticipated with the disposal of these products, providing due care is taken.

How to order

Example: 1 off Spirax Sarco DN15 BPC32F carbon steel bodied maintainable balanced pressure thermostatic steam trap having flanged EN 1092 PN40 connections and an integral strainer screen. The trap is to be fitted with an 'STD' fill capsule for operation at approximately 12°C below steam saturation temperature.

Spare parts

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

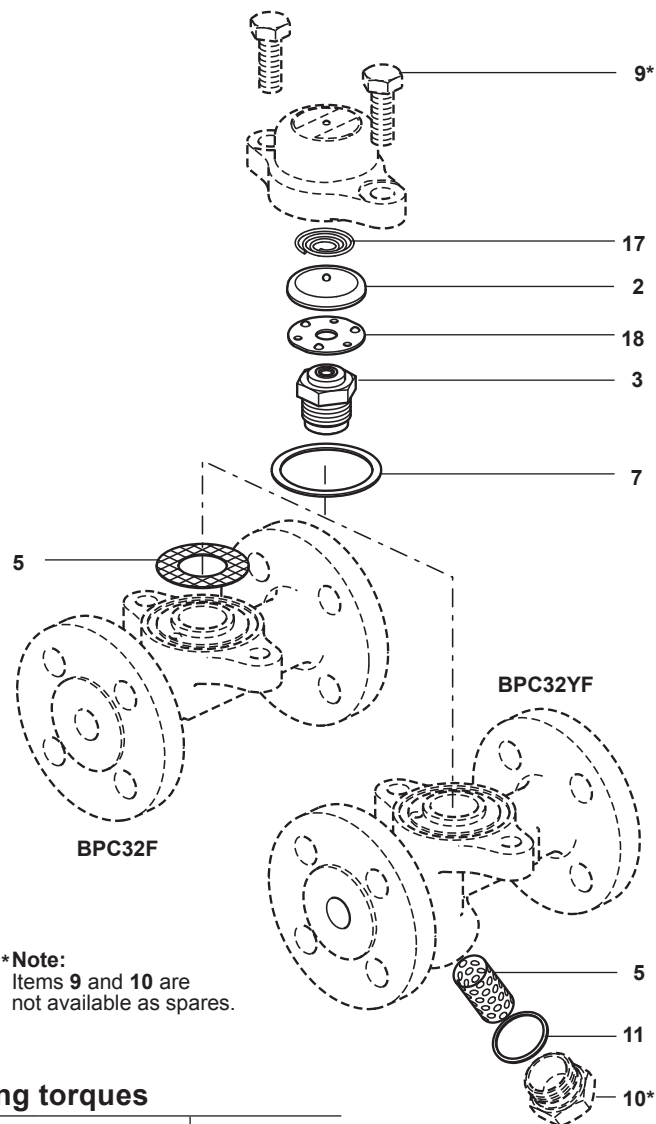
Available spares

| | | | |
|-------------------------------|---------|---------------|--------------|
| Capsule and seat assembly set | | | 2, 3, 17, 18 |
| Strainer screen | BPC32F | (3 off) | 5 |
| Strainer screen and gasket | BPC32YF | (1 off each) | 5, 11 |
| Set of cover gaskets | | (packet of 3) | 7 |
| Strainer cap gasket | | (packet of 3) | 11 |



How to order spares

Always order spares by using the description given in the column headed 'Available spares' and state the size, model number and capsule reference.

Example: 1 - Capsule and seat assembly set for a Spirax Sarco DN25 BPC32F - 'STD' fill capsule for operation at 12°C below steam saturation temperature.



Recommended tightening torques

| Item | Part |  or mm  | N m |
|------|--------------|---|-----------|
| 3 | Valve seat | 24 A/F | 115 - 125 |
| 9 | Cover bolts | 16 A/F M10 x 30 | 23 - 27 |
| 10 | Strainer cap | 27 A/F | 120 - 135 |