

TI-P071-01 CMGT Issue 5

HP70 Series Bimetallic Steam Trap



Description

The Spirax Sarco HP70 bimetallic steam trap is made of a forged alloy steel, and designed for draining high pressure, high temperature steam lines and processes. This steam trap, which is specially designed for HP steam, has a reinforced stainless steel insert within the body and can be repaired inline. It operates with no loss of steam, and quickly drains air, non-condensable gases and large quantities of cold water on start-up.

Normally open in the event of failure, it has a check valve, a built-in strainer screen and an external device for adjusting the discharge temperature of the condensate.

Standards

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

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

| IE B 16.11 or Butt weld to ASME B 16.25. |
|--|
|--|



| No. | Part | Material | | | |
|-----|--------------------|---|---|--|--|
| 1 | Body | Alloy steel | ASTM A182 F11 | | |
| 2 | Valve seat gasket | Stainless steel | Z6 CN 18-09 | | |
| 3 | Bimetallic element | Stainless steel | | | |
| 4 | Strainer screen | Stainless steel | AISI 304L | | |
| 5 | Gland packing | Graphite (asbestos-free) | | | |
| 6 | Locking gland nut | Stainless steel | Z10 CNF 18-09 | | |
| 7 | Cover gasket | Spiral wound stainless steel and graphi | Spiral wound stainless steel and graphite (asbestos-free) | | |
| 8 | Cover | Alloy steel | ASTM A182 F11 | | |
| 9 | Cover stud | Steel | ASTM A193 Gr. B7 | | |
| | Cover nut | Steel | ASTM A194 Gr. 2H | | |
| 10 | Blind nut gasket | Metal, stainless steel/graphite | | | |
| 11 | Blind nut | Steel | ASTM A105 | | |
| 12 | Valve seat | Stainless steel | BS.970 431 29 & ASTM A276 431 | | |
| 13 | Check valve | Stainless steel | BS.970 304S11 | | |
| 14 | Check valve spring | Nickel-Chromium-Cobalt | NIMONIC 90 | | |

Pressure/temperature limits



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

| Body | design condition | | Class 600 |
|---|---|----------------------|---------------------|
| PMA | Maximum allowable pressure | 103.4 bar g @ 50 °C | 1500 psi g @ 122 °F |
| ТМА | Maximum allowable temperature | 450 °C @ 67.7 bar g | 842 °F @ 982 psi g |
| PMO | Maximum operating pressure | 70 bar g @ 425 °C | 1015 psi g @ 797 °F |
| тмо | Maximum operating temperature | 425 °C @ 70 bar g | 797 °F @ 1015 psi g |
| Minim | um allowable temperature | -14 °C | 6.8 °F |
| Minimum inlet pressure for satisfactory operation is: | | 20 bar g | 290 psi g |
| Minimum operating temperature | | 0°C | 32 °F |
| ΔΡΜΧ | The backpressure for correct operation must not exceed 90% of the | ie upstream pressure | |
| Desig | ned for a maximum cold hydraulic test pressure of: | 156 bar g | 2262 psi g |
| | | | |

Dimensions/weights (approximately) in mm (inches) and kg (lbs)



Capacities



Safety information, installation and maintenance For full details see the Installation and Maintenance Instructions supplied with the product.

How to order

Example: 1 off Spirax Sarco ¹/₂" HP70 bimetallic steam trap with socket weld end connections.

Spare parts The spare parts available are detailed below. No other parts are supplied as spares.

Available spares

| Bimetallic assembly kit | 2, 3, 4, 7, 10, 12 | |
|--------------------------------|--------------------|--|
| Strainer screen | 4 | |
| Cover gasket set (packet of 3) | 7 | |
| Gasket set | 2, 7, 10 | |
| Check valve assembly | 13, 14 | |

How to order spares

Always order spares by using the description given in the column headed 'Available spares' and state the size and model of the bimetallic steam trap.

Example: 1 - Bimetallic assembly kit for a Spirax Sarco 1" HP70 bimetallic steam trap.



Recommended tightening torques

| ltem | or mm | Nm | ft lbf |
|------|--------|-----|--------|
| 3 | 36 A/F | 120 | 89 |
| 6 | 21 A/F | 38 | 28 |
| 9 | 24 A/F | 105 | 77 |
| 11 | 41 A/F | 80 | 59 |