Balanced Pressure Thermostatic Steam Trap  
SBP30LC

The welded stainless steel element is self-adjusting over the entire operating pressure range and will discharge condensate at approximately 22°F (12°C) below saturated steam temperature. The element is resistant to waterhammer, and up to 545°F (285°C) superheat over saturated steam temperature can be tolerated by this trap.

### Limiting Operating Conditions

- **Max. Operating Pressure (PMO)**: 435 psig (30 barg)
- **Max. Operating Temperature**: 545°F (285°C) at 435 psig (30 barg)

### Pressure Shell Design Conditions

- **PMA**
  - Max. allowable pressure
    - 720 psig/up to 100°F
    - 50 barg/up to 38°C
  - 450 psig/459°F
    - 31 barg/237°C
  - 400 psig/752°F
    - 27 barg/426°C

- **TMA**
  - Max. allowable temperature
    - 752°F/0-400 psig
    - 400°C/0-27 barg

### Capsule Filling

As standard, the trap is supplied with filling **STD**, which will operate approximately 22°F (12°C) below steam temperature.

As an option, the trap can be supplied with filling **SUB**, which will operate approximately 43°F (24°C) below steam temperature, i.e. sub-cooling.

Note: If the alternative capsule is required, this must be clearly stated on the order, e.g. Capsule to have **SUB** fill.

### Construction Materials

<table>
<thead>
<tr>
<th>No.</th>
<th>Part</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cover*</td>
<td>Stainless Steel</td>
</tr>
<tr>
<td>2</td>
<td>Capsule</td>
<td>Stainless Steel</td>
</tr>
<tr>
<td>2A</td>
<td>Element Valve</td>
<td>Stainless Steel</td>
</tr>
<tr>
<td>3</td>
<td>Seat Assembly</td>
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</tr>
<tr>
<td>4</td>
<td>Valve Seat Gasket</td>
<td>Stainless Steel</td>
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<tr>
<td>5</td>
<td>Strainer Screen</td>
<td>Stainless Steel</td>
</tr>
<tr>
<td>6</td>
<td>Body*</td>
<td>Stainless Steel</td>
</tr>
</tbody>
</table>

* The body/cover weld joint complies with ASME section IX and BS4870 (1981).
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Sample Specification
Steam trap shall be encapsulated Spirax Sarco SBP30LC balanced pressure thermostatic type, which self-adjusts to all pressures to 435 psig and can be installed in either horizontal or vertical piping. Maintenance-free and tamper-proof design of all stainless steel construction with forged body and drawn cover completely sealed against leakage. Operating element to be a solidly liquid-filled thermostatic capsule which vents air freely, operates close to steam temperature, resists waterhammer and freezing conditions, and can withstand up to 90°F superheat.

Installation
Although the trap will operate in any position, the preferred installation is in a horizontal pipe with a drop leg immediately before the trap. The electric arc process must be used when the SW trap is welded into the pipeline. Full port isolating valves should be installed upstream and downstream of the trap.

Maintenance
This product is factory sealed for tamper-proof operation, and no repair parts are available. Complete isolation from both supply and return line is required before the trap is removed.

Complete installation and maintenance instructions are given in the IMI sheet, which accompanies the product.