**Description**

The PC3000 range of pipeline connectors are designed for use with two bolt universal swivel connector steam traps. Incorporating one integral piston stop valve it is possible to isolate upstream of the steam trap and through the use of the fitted depressurization valve, also possible to depressurize it. The trap depressurization port also incorporates a maintainable 40 mesh stainless steel strainer screen to provide trap protection from system dirt and debris. The PC3001 is also fitted with a line drainage valve upstream of the isolation valve.

### Available types

<table>
<thead>
<tr>
<th>Available types</th>
<th>PC3000</th>
<th>PC3001</th>
</tr>
</thead>
<tbody>
<tr>
<td>left to right (shown)</td>
<td>1 x Piston isolation valves with 1 x Upstream trap vent valve</td>
<td>1 x Piston isolation valves with 1 x Upstream trap vent valve and 1 x Line drain valve</td>
</tr>
<tr>
<td>right to left</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Please note* that the line drain outlet is shown out of position for clarity and that the line drain pipework is to be supplied by the customer.

**Sizes and pipe connections**

1/2” and 3/4” condensate inlet / outlet connections are available with screwed NPT (or optional BSP) and as a socket weld connection to ASME B16.11 class 3000. Drainage and venting connections have an M18 thread as standard.

Flanged versions are also available upon request. Please contact Spirax Sarco for further details.

Local regulation may restrict the use of this product below the conditions quoted. Limiting conditions refer to standard connections only. In the interests of development and improvement of the product, we reserve the right to change the specification.
## PC3000 and PC3001 Pipeline Connectors

### Materials

<table>
<thead>
<tr>
<th>No.</th>
<th>Part</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pipeline connector body</td>
<td>Austenitic stainless steel ASTM A182F : 304/304L</td>
</tr>
<tr>
<td>2</td>
<td>Bonnet</td>
<td>Carbon steel (Zinc plated) ASTM A105N/LF2</td>
</tr>
<tr>
<td>3</td>
<td>Studs</td>
<td>Steel (plated) ASTM A193 B7</td>
</tr>
<tr>
<td>4</td>
<td>Nuts</td>
<td>Steel (plated) ASTM A194 2H</td>
</tr>
<tr>
<td>5</td>
<td>Washers</td>
<td>Stainless steel</td>
</tr>
<tr>
<td>6</td>
<td>Piston</td>
<td>Stainless steel AISI 410 : 1.4006</td>
</tr>
<tr>
<td>7</td>
<td>Lantern bush</td>
<td>Stainless steel ASTM A276 : AISI 431</td>
</tr>
<tr>
<td>8</td>
<td>Upper ring</td>
<td>Graphite and stainless steel</td>
</tr>
<tr>
<td>9</td>
<td>Lower ring</td>
<td>Graphite and stainless steel</td>
</tr>
<tr>
<td>10</td>
<td>Handwheel</td>
<td>Carbon steel (Zinc plated) EN 10213 : 1.0619N</td>
</tr>
<tr>
<td>11</td>
<td>Handwheel nuts</td>
<td>Stainless steel</td>
</tr>
<tr>
<td>12</td>
<td>Washers</td>
<td>Steel</td>
</tr>
<tr>
<td>13</td>
<td>Name-plate</td>
<td>Stainless steel</td>
</tr>
<tr>
<td>14</td>
<td>Depressurization valve</td>
<td>Stainless steel ASTM A182 : 304/304L</td>
</tr>
<tr>
<td>15</td>
<td>Line drain valve</td>
<td>Stainless steel ASTM A182 : 304/304L</td>
</tr>
<tr>
<td>16</td>
<td>Valve screw</td>
<td>Stainless steel ASTM A276 : AISI 431</td>
</tr>
<tr>
<td>17</td>
<td>Valve cone</td>
<td>Stainless steel AISI 440 B</td>
</tr>
<tr>
<td>18</td>
<td>Retaining ring</td>
<td>Stainless steel BS 2056 302 S26</td>
</tr>
<tr>
<td>19</td>
<td>Compression fitting for the line drain valve only</td>
<td>Carbon steel (Zinc plated)</td>
</tr>
<tr>
<td>20</td>
<td>Valve gasket</td>
<td>Graphite and stainless steel</td>
</tr>
<tr>
<td>21</td>
<td>Strainer screen</td>
<td>Stainless steel</td>
</tr>
<tr>
<td>22</td>
<td>Depressurization valve gasket</td>
<td>Graphite</td>
</tr>
</tbody>
</table>

### Please note

Please note that the PC3000 unit is supplied fully assembled; the view is only exploded for ease of part identification.
PC3000 and PC3001
Pipeline Connectors

Pressure / temperature limits (ISO 6552)

Body design condition

<table>
<thead>
<tr>
<th></th>
<th>ASME 600</th>
</tr>
</thead>
<tbody>
<tr>
<td>PMA</td>
<td>Maximum allowable pressure: 99.3 bar g @ 38°C, 1440 psi g @ 100°F</td>
</tr>
<tr>
<td>TMA</td>
<td>Maximum allowable temperature: 425°C @ 56 bar g, 797°F @ 812 psi g</td>
</tr>
<tr>
<td>Minimum allowable temperature</td>
<td>-40°C, -40°F</td>
</tr>
<tr>
<td>PMO</td>
<td>Maximum operating pressure for saturated steam service: 62 bar g @ 279°C, 899 psi g @ 534°F</td>
</tr>
<tr>
<td>TMO</td>
<td>Maximum operating temperature: 425°C @ 56 bar g, 797°F @ 812 psi g</td>
</tr>
<tr>
<td>Minimum operating temperature</td>
<td>-40°C, -40°F</td>
</tr>
<tr>
<td>Designed for a maximum cold hydraulic test pressure of: 150 bar g, 2175 psi g</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. If flange connections are fitted then these will limit the maximum and minimum design conditions of the pipeline connector.
2. The maximum operating limits of the complete assembly will be dictated by the steam trap of choice. Reference the specific steam trap technical information sheet for its 'Pressure / temperature limits'.

Dimensions / weight (approximate)

<table>
<thead>
<tr>
<th>Units</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>N</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches (mm)</td>
<td>1.4 (36)</td>
<td>3.5 (90)</td>
<td>1 (25)</td>
<td>2 (50)</td>
<td>1.4 (36)</td>
<td>3.5 (90)</td>
<td>3.9 (99)</td>
<td>4.53 (115)</td>
<td>1.97 (50)</td>
<td>7.9 lbs (3.6 kg)</td>
</tr>
</tbody>
</table>

How to order

Example:
1 off ½" Spirax Sarco PC3000 pipeline connector having right to left flow and socket weld end connections to ASME B 16.11 Class 3000.
PC3000 and PC3001
Pipeline Connectors

Safety information, installation and maintenance
For full details see the Installation and Maintenance Instructions (IM-P128-35) supplied with the product.

General information
There are two criteria which must be satisfied to ensure that the swivel connector trap will operate correctly and ensure effective condensate removal:
1. The PC3000 and PC3001 shall be installed with flow in the direction of the arrow. Flow can be horizontal (left to right or right to left), vertical or inclined.
2. The connection face for the swivel connector steam trap must be in the vertical plane unless stated on relevant steam trap Installation and Maintenance Instructions.
After installation it is recommended that the pipeline connector is insulated to minimize radiated heat losses and to protect personnel from burns risk.

Depressurization and line drainage
The overall assembly is supplied fitted with valve(s) which allow depressurization and line drainage (PC3001 only) of the system to enable safe removal and maintenance of the steam trap. Consideration must be given to the position of the discharge which should be directed or piped to a safe place where it will not injure personnel or damage equipment.

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

Spare parts
The spare parts available are shown in heavy outline. Parts drawn in broken line are not supplied as spares. For ease of replacement an extractor tool is available for removing the sealing rings.

Available spares

<table>
<thead>
<tr>
<th>Spare Part</th>
<th>Item Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piston Valve Sealing Ring</td>
<td>8 and 9</td>
</tr>
<tr>
<td>Piston Valve Assembly</td>
<td>2, 4, 5, 6, 7, 8, 9, 10, 11 and 12</td>
</tr>
<tr>
<td>Extractor Tool</td>
<td>Not shown</td>
</tr>
<tr>
<td>Blowdown Valve and Gasket Kit</td>
<td>14 and 21</td>
</tr>
<tr>
<td>Line Drain and Gasket Kit</td>
<td>15</td>
</tr>
<tr>
<td>Blowdown Valve, Strainer Screen and Gasket Kit</td>
<td>14, 21 and 22</td>
</tr>
<tr>
<td>Blowdown Valve Gasket Kit (set of 10)</td>
<td>22</td>
</tr>
<tr>
<td>Strainer Screen and Gasket Kit</td>
<td>21 and 22</td>
</tr>
</tbody>
</table>

How to order spares
Always order spares by using the description given in the column headed ‘Available spares’ and state type and size of equipment.

Example: 1 off Sealing ring set for an integral piston valve on a PC3000 pipeline connector having DN15 socket weld connections.

Recommended tightening torques

<table>
<thead>
<tr>
<th>Item</th>
<th>or</th>
<th>mm</th>
<th>lb - ft (N m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>14</td>
<td>¾” x 18 UNC</td>
<td>7.4 (10.0)</td>
</tr>
<tr>
<td>11</td>
<td>10</td>
<td>M6</td>
<td>0.074 (0.1)</td>
</tr>
<tr>
<td>14 and 15</td>
<td>24</td>
<td>M18</td>
<td>55 - 58 (74 - 78)</td>
</tr>
</tbody>
</table>