M70i and M80i
Sanitary ball valves for high purity applications
About sanitary ball valves

High purity applications demand the very best in system and product performance, and design. With Spirax Sarco you can be confident of receiving the best possible solution. You can trust us to meet your exact requirements, and to provide the knowledge, service and products that you can depend on.

Spirax Sarco’s range of sanitary ball valves form part of a comprehensive product range for high purity applications, where system integrity, product quality and documentation are paramount.

The M70i (½” to 2”) and M80i (2½” to 4”) are 316L stainless steel ball valves that have been designed in accordance with ASME BPE for the pharmaceutical, bioprocessing, food and beverage, and other high purity industries, where bacteria and media deposits can put product quality at risk.

Understanding the importance of documentation within the high purity environment, we ensure that material test reports (MTR’s) and certificates of compliance are available as standard.

Industries and applications

- Bioprocessing
- Pharmaceutical
- Semi-conductor
- Food and dairy
- Brewing and beverages
- Cosmetics
- Pure steam
- Clean steam
- CIP/SIP
- Clean gases
- High purity water
- Process media
The range at a glance

<table>
<thead>
<tr>
<th>Sanitary ball valve model*</th>
<th>Body material</th>
<th>Valve size</th>
<th>FDA and USP class VI seals</th>
<th>Lockable handle</th>
<th>Surface finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>M70i</td>
<td>Forged 316L</td>
<td>½” to 2” (2½” to 4” available to special order)</td>
<td>As standard</td>
<td>As standard</td>
<td>Standard (Mechanically polished to 0.5 micron Ra (20 micro-inch))</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Optional (Electropolished to 0.375 micron Ra (15 micro-inch))</td>
</tr>
<tr>
<td>M80i</td>
<td>Investment cast 316L</td>
<td>2½” to 4”</td>
<td>As standard</td>
<td>As standard</td>
<td>Standard (Electropolished to 0.375 micron Ra (15 micro-inch))</td>
</tr>
</tbody>
</table>

* Actuation note: Spirax Sarco’s type BVA200 series pneumatic actuators and LSB type limit switches can be supplied fitted to the M70i and M80i where actuation is required. Contact Spirax Sarco for further details.

Key features and benefits

<table>
<thead>
<tr>
<th>Key features</th>
<th>Key reasons</th>
<th>Key benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>True port design</td>
<td>Internal diameter of valve precisely matches those of the connecting tubing eliminating potential dead spaces.</td>
<td>Facilitates free draining, eliminating areas where media can pool and create a potential for contamination.</td>
</tr>
<tr>
<td>Fully traceable high integrity material</td>
<td>Both the M70i and M80i are manufactured from high quality 316L stainless steel with controlled low ferrite content as standard (&lt;1% M70i and &lt;5% M80i).</td>
<td>Ensures system integrity, and reduces risk of producing rouge.</td>
</tr>
<tr>
<td>Designed with orbital welding in mind</td>
<td>Tube weld end tangent lengths in accordance with ASME BPE.</td>
<td>Enabling automatic orbital welding to be performed without valve disassembly.</td>
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<tr>
<td></td>
<td>Material composition (including sulphur 0.005% to 0.017%) in accordance with ASME BPE.</td>
<td>Helping to give a consistent fully penetrated weld.</td>
</tr>
<tr>
<td>ISO 5211 mounting pads as standard</td>
<td>Allowing simple attachment of actuators, limit switches and extended handles.</td>
<td>International standard allows for simple consistent installation.</td>
</tr>
<tr>
<td>Superior sealing</td>
<td>High temperature Dyneon TFM™ seats and cavity fillers as standard.</td>
<td>Suitable for continuous steam service.</td>
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<td></td>
<td>Cavity filler eliminates crevice around ball, which can lead to media pooling and bacteria growth.</td>
<td>Providing customers a single source option for all their clean steam and high purity needs.</td>
</tr>
</tbody>
</table>
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