Safety precautions
Whenever a valve is being installed or removed from the pipeline, ensure the line is not pressurized and any hazardous medium is drained away.

NOTE: Valve shown with optional feet

Storage and installation instructions for F631 double flanged resilient seated butterfly valves

INSTALLATION INSTRUCTIONS

1. Keystone valves are bi-directional and will control flow in either direction. In most horizontal pipe installations it is recommended that the valve be installed with its shaft horizontal and the lower disc edge opening downstream, particularly on sedimentation applications. Do not use flange gaskets or sealing compounds. The Keystone seat design eliminates the need for gaskets.

2. The valve disc position is in line with the keyway or flats on the operator end of the valve shaft.

3. To protect disc edges during installation, removal or storage of valves, ensure the disc is in the nearly closed position (about 5° open) and within the confines of the valve body, but NOT fully closed, as seat compression set may occur.

4. With suitable tooling, spread the flanges to allow sufficient clearance for the valve.

5. Insert the valve between the flanges.

6. Loosely fit all the flange bolts.

7. Before fully cross tightening bolts, check flange alignment and that the valve is centered. Slowly open the valve fully to ensure adequate disc clearance and seat compression is correct (Q dimension), particularly on cement, rubber lined or heavy walled pipe.

8. Fully cross tighten all the flange bolts (see flange bolt torque values table).

9. Do not weld near the valve as this will result in serious damage to the valve.

STORAGE

To protect disc edges during storage or installation/removal, ensure disc remains inside the valve body. The valve faces should be adequately protected against damage and coated with corrosion inhibitor, even when stored under cover.
KEystone Figure 631 DOUBLE FLANGED BUTTERFLY VALVE
STORAGE AND INSTALLATION INSTRUCTIONS

Flange and Pipe Compatibility

Keystone valves are suitable for installation between most international standard flange systems of AS 2129/ASME 150 rating. Refer valve literature sheet for standard drillings. Weld neck flanges (flange ID approximates valve bore) are recommended to ensure maximum valve performance.

End of Line Service

The F631 range of butterfly valves is suitable for installation in a static end of line service application, at full differential pressure without the need for downstream flanges. Consideration of the age of the valve, condition of the seat and disc should be assessed before using resilient seated butterfly valves in end of line service.

Vacuum Service

The F631 is suitable for low vacuum service, expressed as 25 mm Hg to atmosphere.

Flow

The F631 has a maximum fluid velocity of 5 metres/second.

Maintenance

Routine maintenance or lubrication are not required.

Flange Bolt Torque Values (Nm)

<table>
<thead>
<tr>
<th>Bolt size</th>
<th>Minimum torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>M16 x 2.0</td>
<td>41</td>
</tr>
<tr>
<td>M20 x 2.5</td>
<td>81</td>
</tr>
<tr>
<td>M22 x 2.5</td>
<td>110</td>
</tr>
<tr>
<td>M24 x 3.0</td>
<td>139</td>
</tr>
<tr>
<td>M27 x 3.0</td>
<td>194</td>
</tr>
<tr>
<td>M30 x 3.5</td>
<td>281</td>
</tr>
<tr>
<td>M33 x 3.5</td>
<td>358</td>
</tr>
<tr>
<td>M36 x 4.0</td>
<td>481</td>
</tr>
<tr>
<td>M45 x 4.5</td>
<td>1050</td>
</tr>
</tbody>
</table>