Flexible Flanged Shaft Coupling

- The most popular flexible shaft coupling in Japan that is compliant with JIS B 1452 - 1991 "Flexible Flanged Shaft Couplings".
- Simple structure comprised of a flange and coupling bolts. Easy-to-mount.
- Bushings can be replaced just by removing coupling bolts. This makes maintenance and service easy.
- While it absorbs misalignment such as eccentricity and argument, it prevents noise by absorbing torsional vibration. It will not transmit thrust load, either.
- Two types are available: Cast Iron FCL and Carbon Steel FCLS.

Structure

- Each symbol is identical to that shown in the Dimension/Performance table.
- Allowance of the bolt hole pitch circle diameter and the Bushing Insertion Hole Pitch Circle Diameter, allowance of the pitch, and the run-out tolerance to the shaft bore center.
- Dimensional allowance of each part of the joint.

<table>
<thead>
<tr>
<th>Joint Main Unit</th>
<th>FCL</th>
<th>FCLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nut</td>
<td>Equivalent to SS400</td>
<td>Equivalent to SS400</td>
</tr>
<tr>
<td>Spring Lock</td>
<td>Equivalent to SS400</td>
<td>Equivalent to SS400</td>
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<tr>
<td>Bushing</td>
<td>Equivalent to SS400</td>
<td>Equivalent to SS400</td>
</tr>
<tr>
<td>Washer</td>
<td>Equivalent to SS400</td>
<td>Equivalent to SS400</td>
</tr>
<tr>
<td>Bolt</td>
<td>Equivalent to SS400</td>
<td>Equivalent to SS400</td>
</tr>
</tbody>
</table>

Performance of the Bushing

- Tensile strength
- Heat resistance
- Cold resistance
- Acid resistance
- Chemical resistance

Alignment adjustment

1. Although the flexible flanged shaft coupling permits misalignment and transmits torque, if the misalignment exceeds the allowable value, vibration may occur or the life may be rapidly shortened. Be sure to perform alignment adjustment.
2. Shaft center misalignment includes eccentricity (parallel error of both shaft centers), argument (angle error of both shaft centers), and end-play (shift direction movement of the shaft). Adjust the shaft alignment so that it will not exceed the allowable value listed in the Dimension/Performance table in this catalog.
3. The allowable values of the misalignment listed in the Dimension/Performance table are for the case where any one of eccentricity, argument, and end-play occurs independently. Mixing of two or more misalignment causes each of the allowable values to be reduced to half.
4. Misalignment may occur not only in assembling into the device but also due to vibration, thermal expansion, and shaft bearing abrasion during operation. Therefore, it is recommended to keep the misalignment one third of the allowable value or less.

Eccentricity, Parallel Offset Misalignment

Argument, Angular Misalignment

End-Play