On older equipment, or where compression packing is being changed out for a mechanical seal, shaft wobble and eccentricities can be severe. The MSS seal was designed to work in these tough conditions where stuffing box face run-out, bore run-out, and OD run-out are beyond the capabilities of seals designed primarily for centrifugal pumps.

Features and Benefits

- Handles shaft run-out up to 0.150 inch TIR.
- The outside seal arrangement of the MSS makes installation, inspection and maintenance simple. Installation time is typically less than 45 minutes - with ten simple steps and common hand tools.
- Nonmetallic wetted parts - the only components of the MSS seal which contact process fluids (or gasses) are the seal faces, insert mounting and shaft packing O-rings.
- Fits in tight spaces with no equipment tear down - can be installed in cramped stuffing box areas where the bearing housing, gear box and/or coupling create obstructions.
- Can be run dry or wet - the self-lubricating faces and a design that dissipates heat from the seal faces, make dry-running the MSS a practical alternative to packings and liquid-running seals on top entry mixers. The MSS can run with wet faces and is a good choice for side entry reactors and paper stock chests.
- Withstands pressure reversals - the MSS design compensates for pressure reversals and helps to ensure product purity.

Materials of Construction

<table>
<thead>
<tr>
<th>Metal Components</th>
<th>316 Stainless Steel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotating Face</td>
<td>Carbon</td>
</tr>
<tr>
<td>Stationary Face</td>
<td>Ceramic (tungsten carbide optional)</td>
</tr>
<tr>
<td>Gasketing</td>
<td>Fluoroelastomer (EPR optional)</td>
</tr>
</tbody>
</table>

Operating Parameters

<table>
<thead>
<tr>
<th>Pressure</th>
<th>Dry</th>
<th>Vacuum to 5 bar (75 psi)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wet</td>
<td>up to 7 bar (100 psi)</td>
</tr>
<tr>
<td>Speeds</td>
<td>Dry</td>
<td>up to 350 rpm</td>
</tr>
<tr>
<td></td>
<td>Wet</td>
<td>up to 1740 rpm</td>
</tr>
<tr>
<td>Shaft run-out</td>
<td>up to 4mm (0.150 inch) TIR (sum total of run-out, eccentricity, and deflection)</td>
<td></td>
</tr>
<tr>
<td>Shaft Sizes</td>
<td>25 to 305 mm (1.000 to 12.000 inch)</td>
<td></td>
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</tbody>
</table>
Flowserve Corporation has established industry leadership in the design and manufacture of its products. When properly selected, this Flowserve product is designed to perform its intended function safely during its useful life. However, the purchaser or user of Flowserve products should be aware that Flowserve products might be used in numerous applications under a wide variety of industrial service conditions. Although Flowserve can provide general guidelines, it cannot provide specific data and warnings for all possible applications. The purchaser/user must therefore assume the ultimate responsibility for the proper sizing and selection, installation, operation, and maintenance of Flowserve products. The purchaser/user should read and understand the Installation Instructions included with the product, and train its employees and contractors in the safe use of Flowserve products in connection with the specific application.

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Dimensional Data in inches

<table>
<thead>
<tr>
<th>Shaft Size ± 0.001&quot; (Dimension A)</th>
<th>Standard Bore Diameter ±0.005&quot; (Dimension B)</th>
<th>Gland Bolt Circle Diameter</th>
<th>Distance to First Obstruction (Dimension J)</th>
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</thead>
<tbody>
<tr>
<td>1.000</td>
<td>2.250</td>
<td>4.75</td>
<td>4.44</td>
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The above is a partial listing. Additional sizes up to 12.000" and metric sizes are also available.

Note: Dimension J reflects the minimum distance required for the assembled seal plus additional axial space required for seal assembly.

Two 0.500 inch studs evenly spaced. For 5 inch dia. shafts or larger, a stud size of 0.625 inch is required.

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