Multi-Stage Pumps Designed for Critical Process Services
The SERO Advantage

Headquartered in Germany, SERO PumpSystems is the world's only exclusive manufacturer of side channel pumps. Since the issuance of their first side channel pump patent in 1929, SERO has continued to revolutionize the industrial pump industry. Specializing in individually configured pumping systems, SERO has consistently been on the leading edge of side channel pump design and technology.

Side Channel Pump Technology

Side channel designs fill the hydraulic performance void between positive displacement pumps and centrifugal pumps. Fully open "star" impellers interact with the side channel casing creating an intense transfer of energy to the pumped liquid or liquid / gas mixture. The corresponding pressure increase (pump head) equals 5 to 10 times the amount generated by a similar size centrifugal pump at the same RPM. Additionally, the centrifugal effect of the impeller combined with the unique SERO internal flow patterns, allow our pumps to effectively handle fluids with gas entrainment of up to 50% and also be self-priming. All this in one compact package!

SERO Model SRZS

Specialty Pumps Engineered for a Wide Range of Industrial Services

Model SRZS is a proven state-of-the-art multi-stage, radially split segmented pump that combines the functionality of a low NPSH first stage impeller with the performance of a side channel design. The SRZS features include:

- Exceptional Differential Pressures Developed at 1750 RPM
- Hydraulic Flexibility - Low Flows with High Head
- Steep Performance Curves for Precise System Control
- Ability to Pump Vapor Laden (up to 50%) Process Fluids
- Low NPSH Requirements to Prevent Cavitation
- Self-priming
- Multiple Sealing Options
- Modular Construction with Standardized Parts
- Field Interchangeability with Existing Units
- "Crafted In Germany" for Increased Reliability and Lowest Cost of Ownership

SERO Side Channel Pumps
Engineering Expertise - German Quality - Reliability
Designed for the Future
## SRZS Engineering Details

<table>
<thead>
<tr>
<th>SIZE</th>
<th>110</th>
<th>220</th>
<th>330</th>
<th>440</th>
<th>550</th>
<th>660</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NUMBER OF STAGES</strong></td>
<td>1 TO 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SUCTION FLANGE INCHES (MM)</strong></td>
<td>1½ (40)</td>
<td>2½ (65)</td>
<td>2½ (65)</td>
<td>3 (80)</td>
<td>4 (100)</td>
<td>4 (100)</td>
</tr>
<tr>
<td><strong>DISCHARGE FLANGE INCHES (MM)</strong></td>
<td>¾ (20)</td>
<td>1¼ (32)</td>
<td>1¼ (32)</td>
<td>1½ (40)</td>
<td>2 (50)</td>
<td>2½ (65)</td>
</tr>
<tr>
<td><strong>RPM (60HZ)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1750</td>
<td></td>
</tr>
<tr>
<td><strong>MAXIMUM WORKING PRESSURE PSI (BAR)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>580 (40)</td>
<td></td>
</tr>
<tr>
<td><strong>CAPACITY RANGE, GPM (m3/h)</strong></td>
<td>6 - 12 (1.4-2.9)</td>
<td>13 - 24 (2.9-5.4)</td>
<td>26 - 40 (5.8-9)</td>
<td>47 - 64 (10.6-14.5)</td>
<td>76 - 106 (17.3-24.1)</td>
<td>130 - 186 (29.4-22.2)</td>
</tr>
<tr>
<td><strong>HEAD RANGE @ MIN FLOW, FT (m)</strong></td>
<td>100-740 (30-225)</td>
<td>140-1080 (40-330)</td>
<td>110-790 (35-240)</td>
<td>105-800 (32-250)</td>
<td>130-1000 (40-300)</td>
<td>160-1150 (50-350)</td>
</tr>
<tr>
<td><strong>TEMPERATURE RANGE °F (°C)</strong></td>
<td>-40°F - 430°F (40°F - 220°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MAXIMUM VISCOSESSU (CST)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1050 (230)</td>
<td></td>
</tr>
<tr>
<td><strong>MAXIMUM ALLOWABLE ENTRAINED VAPOR</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>50%</td>
<td></td>
</tr>
</tbody>
</table>

### Design Options

**Sealing Flexibility:**
- Single Mechanical Seal - Unbalanced, Balanced. Available Quench Feature
- Double Mechanical Seal - Unbalanced, Balanced

**High Temperature Construction Features:**
- Jacketed Seal Chamber with NPT Connections
- High Temp Bearings
- Modified Internal Clearances

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