Ceramic-Lined Chokes

Ideal for reducing flow and/or pressure in highly erosive slurries.

Silicon Carbide Liner
Ceresist ceramic chokes are provided with a reaction-bonded silicon carbide ceramic liner as standard, which is 30 times more wear-resistant than stainless steel. Sintered silicon carbide, alumina, and nitride-bonded silicon carbide ceramics may optionally be specified to suit any process and budget.

Stainless Steel Housing
Housings are manufactured as standard in stainless steel 304 for durability against environmental corrosion. Alternate materials are also available.

Review and Recommendation
All choke applications are reviewed by our engineering staff who select the proper materials to ensure chemical compatibility and long service life. The process conditions are also run through our software to determine the proper bore size for predictable results in service.

Ground or Recessed Transition
In order to comply with plant standards, the transition between the ceramic liner and the exterior housing may be specified as recessed or diamond-ground to match the sealing surface.

Exterior Protection
Abrasions and corrosion-resistant coating systems may be applied for added protection and longevity in harsh environmental conditions.

Industries Served
• Coal Fired Power Generation
• Abrasive Material Handling
• Chemical Processing
• Food Processing
• Powder/ Bulk Solids Conveying
• Mining & Mineral Processing
• Pulp & Paper
• Pulverizing & Grinding
• Iron & Steel Manufacturing
• Sewage & Wastewater Treatment

Ceresist ceramic-lined chokes are specified for use in extremely erosive slurries that contain a very high percentage of solids. The large radius entry of the chokes exhibit better consistency and flow recovery characteristics than sharp-edged orifice plates. Furthermore, our ceramic-lined chokes are more compact than venturi-style chokes.

The durable and thick-walled silicon carbide ceramic lining allows their use in piping systems that require years of maintenance-free service.
**Typical Installation**

- Wear-Resistant Lining (Optional)
- Upstream Flange
- Downstream Flange
- Gasket
- Ceramic-Lined Choke

**Design Variations**

- Flanged
- Wafer
- Reducing Flange
- Lined Spacer

**Operating Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size Range</td>
<td>1/4” to 48”</td>
<td>DN8 to DN1,200</td>
</tr>
<tr>
<td>Pressure Class</td>
<td>ANSI 150 to 2,500 lb</td>
<td>PN16 to PN400</td>
</tr>
<tr>
<td>Maximum Operating Temperature</td>
<td>1,200° F</td>
<td>650° C</td>
</tr>
<tr>
<td>Maximum Operating Pressure</td>
<td>3,000 psig</td>
<td>206 Bar</td>
</tr>
<tr>
<td>Maximum Differential Pressure</td>
<td>3,000 psi</td>
<td>206 Bar</td>
</tr>
<tr>
<td>Maximum Thermal Shock</td>
<td>750° F</td>
<td>400° C</td>
</tr>
</tbody>
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Ceresist is an ISO 9001:2008 Certified Company