Silicon Carbide Shell & Tube Heat Exchanger
Series CORRESIC®-SR

**Features and Benefits**
- Highest corrosion resistance against acids, leaches, halogen compounds and oxidising media
- Excellent thermal conductivity
- Best abrasion resistance
- High resistance against thermal shocks
- Highest purity, no contamination
- Condensation on both, shell and tube side
- Optimised tube sheet enables low cost and compact design
- Improved relation transfer area to shell volume
- Best available sealing system (double sealing FFKM resp. FKM)
- No corrosion and leakage risk
- Completely drainable

**Setup and Design**
- HEXOLOY SE®-SSiC tubes Ø14 x 1.5 mm, Ø19 x 2.2 mm
- Tube sealing by patented compact sealing system
- Double sealing FFKM/FFKM resp. FFKM/FKM as standard
- No threaded connections of the tube sheets in corrosive areas
- Heat transfer area 0.4 m² to 42 m²
- Shell diameter DN 100 bis DN 400
- Bundle length 1.0 m bis 4.5 m

**Applications**
- Liquid/liquid heat transfer at acids, caustic media and all kind of organics, e.g. acid mixtures, sulphuric acid, nitric acid
- Condensation processes
- Condenser units including main and trap condenser and condensate cooler
- Cooling of gases even with elementary halogen compounds (dry and moist)
- High purity chemical processes and API manufacturing in final stages
- Acid concentration

**Design Parameters**
- 1 bar to +6 (+10) bar max. operational pressure
- -10 (-30) °C to +180 (+220) °C max. operational temperature
Benefits of Shell & Tube Design

- Modular setup
- Application focussed material mix
- Best cleaning possibilities

Technically Perfect

- Application in single-purpose and multi-purpose plants
- Best thermal performance at compact dimensions
- Long lifetime

Economically Outstanding

- Best price level
- Standardisation and focus on major sizes and material combinations
- Short lead times
- Low operation and maintenance cost

Employed Material and Material Options

<table>
<thead>
<tr>
<th>Component</th>
<th>Material/Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tubes</td>
<td>HEXOLOY SE® SSiC tubes Ø14 x 1.5 mm, Ø19 x 2.2 mm</td>
</tr>
<tr>
<td>Sealing system</td>
<td>Double sealing FFKM/FFKM resp. FFKM/FKM</td>
</tr>
<tr>
<td>Tubesheet</td>
<td>Steel PFA lined</td>
</tr>
<tr>
<td>Shell</td>
<td>Carbon steel, stainless steel, glass lined</td>
</tr>
<tr>
<td>Headers</td>
<td>Carbon steel, stainless steel, glass lined, PTFE lined</td>
</tr>
</tbody>
</table>

Design and Inspection

- CORRESIC® heat exchangers are designed, manufactured, tested and inspected according to AD 2000-Merkblatt (in coherence with the European Pressure Equipment Directive PED)
- Other design and manufacturing codes upon request

Additional Information

- Data sheet SR-1 includes information on terminology and main dimensions.
- Further amending and complementary information (brochures, corrosion resistance charts, product information, data sheets,…) you may also download at www.gab-neumann.de.