Supply and monitoring of mechanical seals and gearboxes

Automatic Supply Systems AVS

Description
Systems for liquid pressure supply of mechanical seals and gearboxes. Permanent monitoring of all relevant system parameters, e.g. pressure, temperature, flow rate and liquid level. Guarantee for safety, reliability and comfort.

Applications e.g.
• Bulk chemicals
• Polymers
• Specialty chemicals
• Hydrometallurgy

Certificates
• Certification for use in explosion proof zones acc. 2014/34/EU Zone 1 IIC T4
• Certification acc. API 614 (Oil supply systems)

Operating Conditions
• Ambient temperatures: -40°C...50°C
• Pressure: up to 200 bar

Service
Worldwide service net
• Maintenance
• Spare parts
• Commissioning
• On-site staff training
Automatic seal supply systems

**Refill system**
Automatic refill of sealing liquid for leakage compensation of the mechanical seal, instead of using handpumps.

**Cooling system**
Closed water cooling system with circulation pumps and heat exchanger for high process temperatures.

**Flushing system**
High pressure flushing system against scaling, bonding and abrasion inside the mechanical seal, for a maximum of service life, with a minimized consumption of a product compatible liquid.

**Emergency system**
High pressure back-up pump system to ensure continuous operation in case of a serious seal leakage. Uncontrolled release of product to the atmosphere is not possible.

Gearbox oil supply systems

- Automatic pump system for cooling and filtering of the gearbox oil
- Redundant equipment and instruments for extra reliability
- Skid mounted at gearbox or stand-alone

<table>
<thead>
<tr>
<th>Compact</th>
<th>Standard</th>
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</thead>
<tbody>
<tr>
<td>Fixed at gear box or separate line-up</td>
<td>Separate line-up</td>
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<tr>
<td>10 bar working pressure</td>
<td>10…40 bar working pressure</td>
</tr>
<tr>
<td>8…40 l/min flow</td>
<td>20…250 l/min flow</td>
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<tr>
<td>3…15 kW cooling capacity</td>
<td>10…100 kW cooling capacity</td>
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<tr>
<td>In-line filter</td>
<td>Double switching filter</td>
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<tr>
<td>Bundle heat exchanger</td>
<td>Storage vessel (optional)</td>
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<tr>
<td>Thermostatic valve</td>
<td>Redundant parts:</td>
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<tr>
<td>Instruments</td>
<td>Bundle heat exchanger</td>
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<tr>
<td></td>
<td>Thermostatic valve</td>
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<tr>
<td></td>
<td>Instruments</td>
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<td></td>
<td>Pumps</td>
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</tbody>
</table>

**Documentation (all systems)**
- Factory acceptance test (FAT)
- P&IDs
- Logical diagram
- Interlock lists
- Operation manual
- Conformity declaration