PCPS™ RANGE
Progressing Cavity Pump
Mechanical Seals

- FLARED/BIG BORE SEAL HOUSING
- AVAILABLE FOR ALL DESIGNS OF PROGRESSING CAVITY PUMPS
- NO PUMP MODIFICATION NECESSARY
- CARTRIDGE DESIGN
- BALANCED, SELF-ALIGNING SEAL FACES
FLARED/BIG BORE SEAL HOUSING

AVAILABLE FOR ALL DESIGNS OF PROGRESSING CAVITY PUMPS

NO PUMP MODIFICATION NECESSARY

CARTRIDGE DESIGN

BALANCED, SELF-ALIGNING SEAL FACES

FULL RANGE OF ENVIRONMENTAL CONTROLS AVAILABLE

DESIGNED TO INCORPORATE AESSEAL® MODULAR SINGLE OR DOUBLE SEAL TECHNOLOGY

Exclusive No Compromise PC Pump Seal Design

It has been accepted that mechanical seals can offer significant benefits over compression packing in rotary shaft sealing. The sealing of progressing cavity pumps with a mechanical seal has however generally been adjudged a compromise due to:-

- High viscosity products and low speeds, coupled with limited radial and axial clearances in the conventional stuffing box, exacerbating build-up of solids, reducing liquid film at the seal interface, increasing seal face temperature and reducing seal life.

- Difficulty in fitting and correctly setting a conventional mechanical seal.

- Expensive pump modifications sometimes being necessary particularly when fitting a double mechanical seal.

AESSEAL® have designed ‘flared’ and ‘big bore’ seal housings in full co-operation with leading PC Pump Manufacturers, and as acknowledged by recognised institutions. These designs maximise radial and axial clearances, encourage solids transfer away from the seal faces, reduce heat build up and EXTEND SEAL LIFE.

Photograph above by kind permission of seepex UK Ltd., featuring AESSEAL plc PCPS™ with CURC™ seal components.

Typical arrangement (right) showing PCPS™, incorporating CDSA™ double seal components.
Extended Range Availability

The AESSEAL® PCPS™ range has been developed to incorporate proven, modular designs from our highly acclaimed range of single and double mechanical seals, with up to 49 face combinations, to cover applications from full vacuum to 20 barg (300 psig).

Environmental Options

Quench, drain and flush connections can be incorporated in the fully machined gland to accommodate potential for adapting to all product conditions and hazards.

No Fuss Installation - Cartridge Construction

Cartridge seal construction is a proven reliability improvement. Seals pre-assembled at the factory, pressure tested and shipped as a unit dramatically increase performance. Spring compression is pre-set and seal faces are protected from damage during installation. The clamped seal housing design further reduces installation time, maximising performance potential.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Material</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Internal Rotary O Ring</td>
<td>Viton® / EPR / Kalrez® / Aflas®</td>
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<tr>
<td>2</td>
<td>Sleeve</td>
<td>316L Stainless Steel</td>
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<td>3</td>
<td>Sleeve O Ring</td>
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<tr>
<td>4</td>
<td>Springs</td>
<td>Alloy 276</td>
</tr>
<tr>
<td>5</td>
<td>Inner Rotary Face</td>
<td>316L SS / Carbon / TC / SiC</td>
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<tr>
<td>6</td>
<td>Inner Stationary Face</td>
<td>316L SS / CrOX / TC / CER / SiC</td>
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<td>7</td>
<td>Gland Insert</td>
<td>316L Stainless Steel</td>
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<tr>
<td>8</td>
<td>Internal Stationary O Ring</td>
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<tr>
<td>9</td>
<td>Insert O Ring</td>
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<td>Pivot Ring</td>
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<tr>
<td>11</td>
<td>External Stationary O Ring</td>
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<tr>
<td>12</td>
<td>Outer Stationary Face</td>
<td>316L SS / CrOX / TC / CER / SiC</td>
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<tr>
<td>13</td>
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<td>Clamp Ring O Ring</td>
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<td>16</td>
<td>Clamp Ring</td>
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<td>17</td>
<td>Anti-Tamper Screws</td>
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<td>Centering Clips</td>
<td>Brass</td>
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<td>Seal Housing</td>
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<tr>
<td>21</td>
<td>Drive Screws</td>
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<tr>
<td>22</td>
<td>Springs</td>
<td>Alloy 276</td>
</tr>
</tbody>
</table>
A selection of AESSEAL® seal housing designs for specific progressing cavity pump types.

The above diagrams illustrate some of our typical mechanical seal housing sections designed to accommodate components from our full range of single and double cartridge seals.

AESSEAL® PCPS™ range will cover shaft sizes from 25mm to 150mm metric and 1.000” to 6.000” imperial. AESSEAL® PCPS™ seal details can be provided to meet customer specific applications.

PCPS™ - Progressing Cavity Pump Mechanical Seals

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WARNING

Use double mechanical seals with hazardous products. Always take safety precautions:
- Guard your equipment
- Wear protective clothing

THIS DOCUMENT IS DESIGNED TO PROVIDE DIMENSIONAL INFORMATION AND AN INDICATION OF AVAILABILITY. FOR FURTHER INFORMATION AND SAFE OPERATING LIMITS CONTACT OUR TECHNICAL SPECIALISTS AT THE LOCATIONS BELOW.

All sizes are subject to manufacturing tolerances. We reserve the right to modify specifications at any time.

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