AESSEAL®

ENVIRONMENTAL TECHNOLOGY

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

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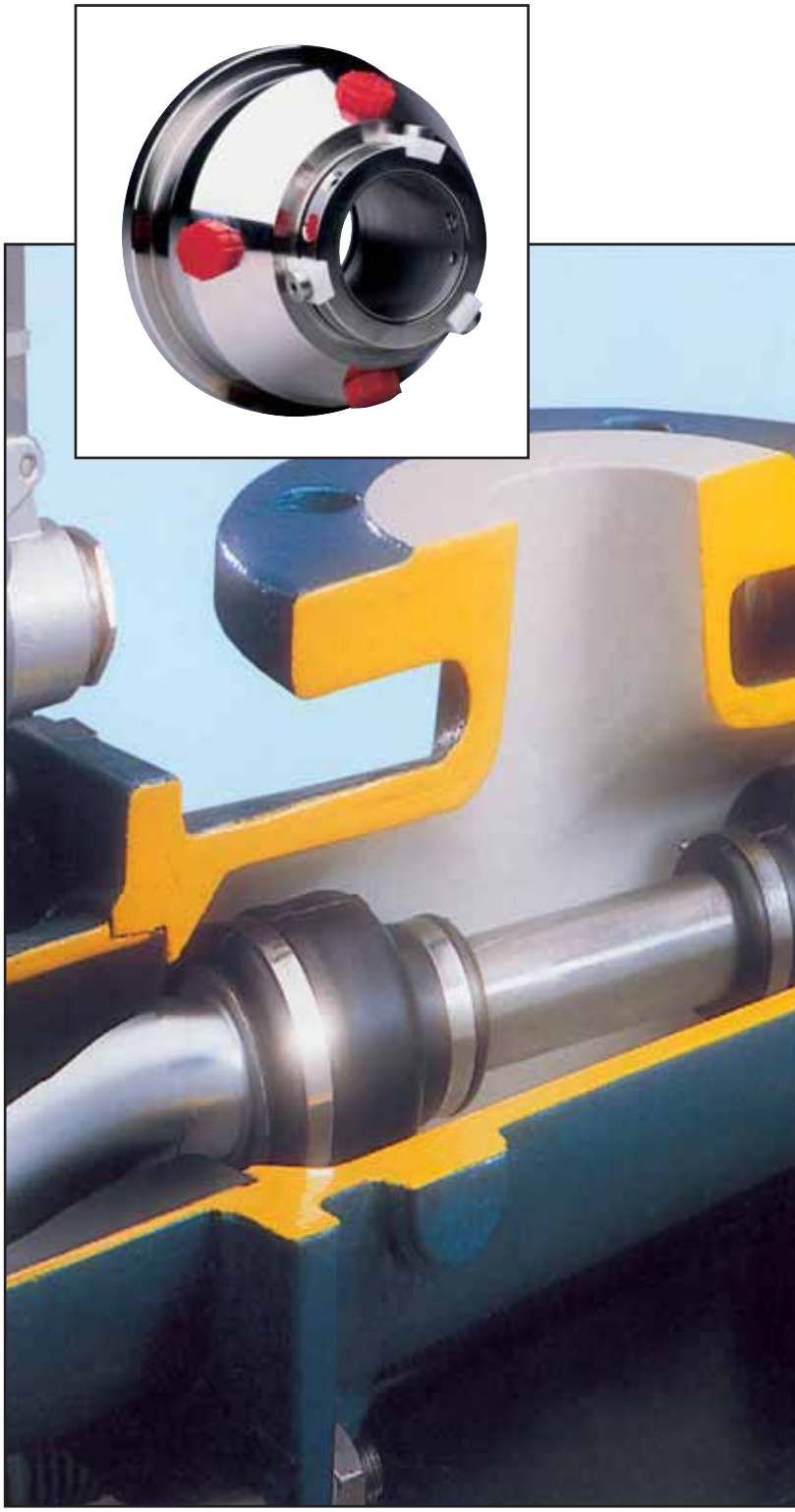
- NO PUMP MODIFICATION NECESSARY
- CARTRIDGE DESIGN
- BALANCED, SELF-ALIGNING SEAL FACES
- FULL RANGE OF ENVIRONMENTAL CONTROLS AVAILABLE
- DESIGNED TO INCORPORATE AESSEAL® MODULAR SINGLE OR DOUBLE SEAL TECHNOLOGY

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.

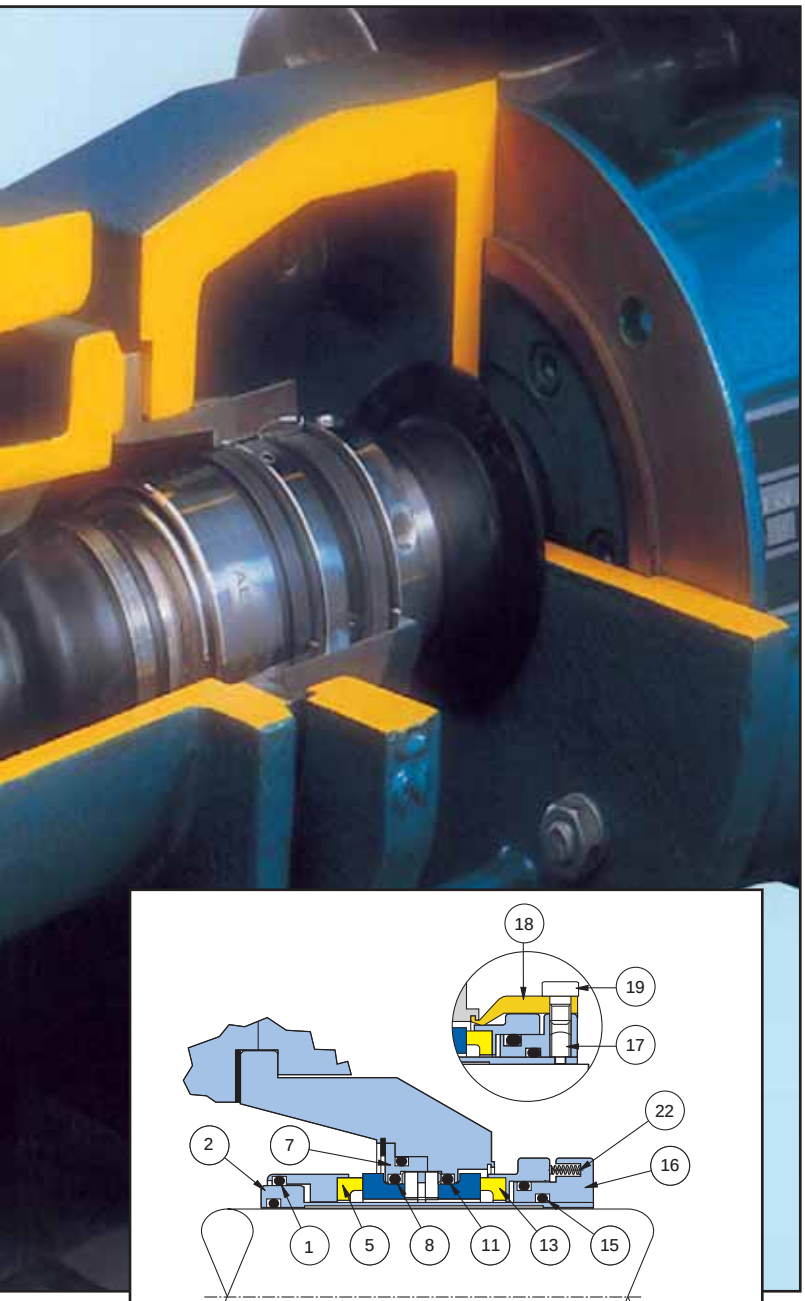


Photograph above by kind permission of **seepex** UK Ltd., featuring AESSEAL plc PCPS™ with CURC™ seal components.

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).

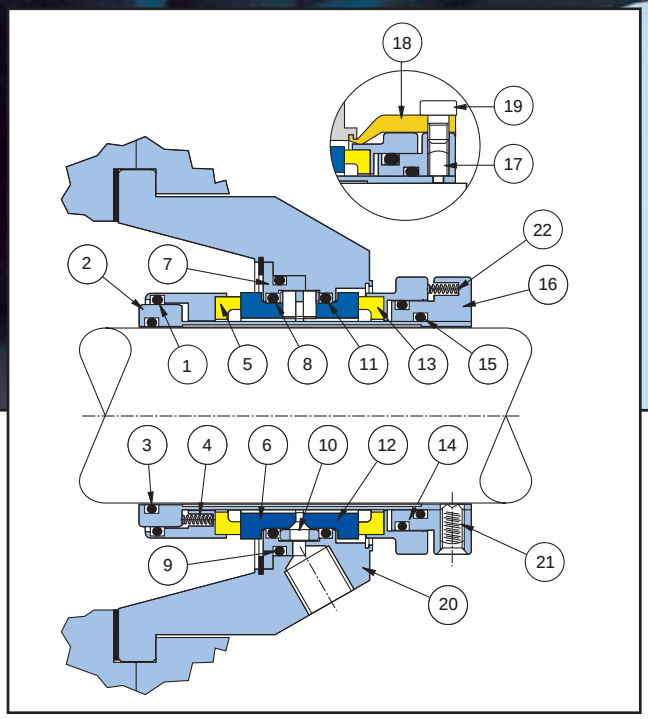


Environmental Options

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

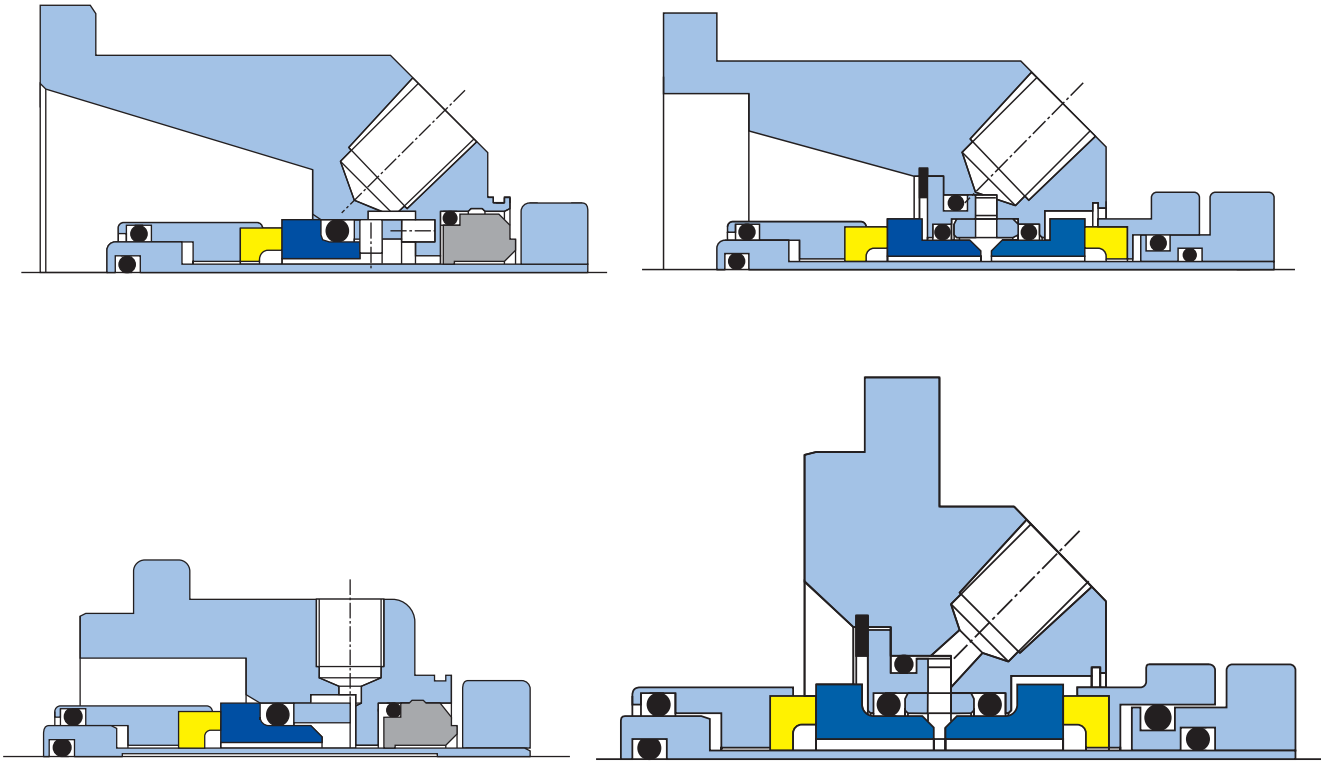
Cartridge seal construction is a proven reliability improvement. Seals pre-assembled at the factory, pressure tested and shipped as a unit dramatically increase performance. Spring compression is pre-set and seal faces are protected from damage during installation. The clamped seal housing design further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



Item	Description	Material
1	Internal Rotary O Ring	Viton® / EPR / Kalrez® / Aflas®
2	Sleeve	316L Stainless Steel
3	Sleeve O Ring	Viton® / EPR / Kalrez® / Aflas®
4	Springs	Alloy 276
5	Inner Rotary Face	316L SS / Carbon / TC / SiC
6	Inner Stationary Face	316L SS / Cr.OX / TC / CER / SiC
7	Gland Insert	316L Stainless Steel
8	Internal Stationary O Ring	Viton® / EPR / Kalrez® / Aflas®
9	Insert O Ring	Viton® / EPR / Kalrez® / Aflas®
10	Pivot Ring	316L Stainless Steel
11	External Stationary O Ring	Viton® / EPR / Kalrez® / Aflas®
12	Outer Stationary Face	316L SS / Cr.OX / TC / CER / SiC
13	Outer Rotary Face	316L SS / Carbon / TC / SiC
14	External Rotary O Ring	Viton® / EPR / Kalrez® / Aflas®
15	Clamp Ring O Ring	Viton® / EPR / Kalrez® / Aflas®
16	Clamp Ring	316L Stainless Steel
17	Anti-Tamper Screws	Stainless Steel
18	Centering Clips	Brass
19	Clip Screws	Stainless Steel
20	Seal Housing	316 Stainless Steel
21	Drive Screws	Stainless Steel
22	Springs	Alloy 276

PCPS™ - Progressing Cavity Pump Mechanical Seals

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.

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.

LLOYD'S REGISTER QUALITY ASSURANCE ISO 14001 UKAS ENVIRONMENTAL MANAGEMENT 001

LLOYD'S REGISTER QUALITY ASSURANCE ISO 9000 UKAS QUALITY MANAGEMENT 001

THE QUEEN'S AWARDS FOR ENTERPRISE: INTERNATIONAL TRADE 2002

THE QUEEN'S AWARDS FOR ENTERPRISE: INNOVATION 2004

USE DOUBLE MECHANICAL SEALS WITH HAZARDOUS PRODUCTS. ALWAYS TAKE SAFETY PRECAUTIONS:

- **GUARD YOUR EQUIPMENT**
- **WEAR PROTECTIVE CLOTHING**

WARNING

UK Sales & Technical advice:
AESSEAL plc
Mill Close
Templeborough
Rotherham
S60 1BZ
United Kingdom

Telephone: +44 (0) 1709 369966
Fax: +44 (0) 1709 720788
E-mail: seals@aesseal.com
Internet: http://www.aesseal.com

Distributed by:

USA Sales & Technical advice:
AESSEAL Inc.
10231 Cogdill Road
Suite 105
Knoxville, TN 37932
USA

Telephone: +1 865 531 0192
Fax: +1 865 531 0571
E-mail: usa@aesseal.com

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