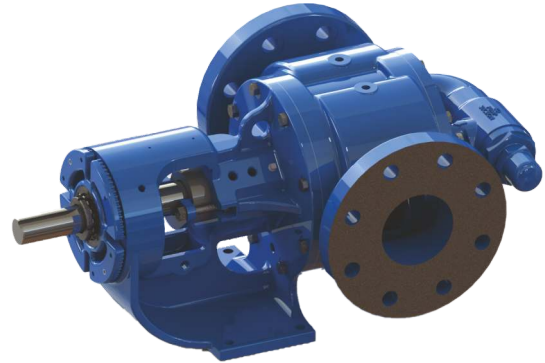


FEATURES & BENEFITS

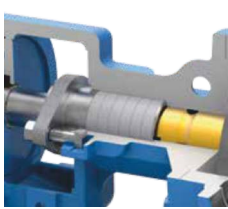
- All stainless steel construction for corrosion resistance over a wider pH range
- Enhanced bearing housing allows easy installation of packing, component and most cartridge mechanical seals without modification
- Universal bracket design for consistent flow for longer performance duration
- Customized internals for abrasive liquids
- Flow adjustment with end clearance setting to compensate axial wear and tear



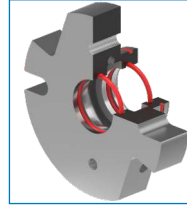
Component Seal



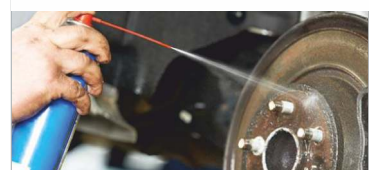
Cartridge Seal



Gland Packing



O-pro Seal



Seal chamber accepts packing and a variety of component and cartridge style mechanical and lip seals, in both single and double mechanical seal configurations

Internal relief valve standard*

Double row ball or tapered roller bearings for axial thrust control

Threaded one-piece bearing housing allows for easy end clearance adjustment

Large diameter threaded bearing housing allows easy removal of cartridge seals

One-piece cast bracket with seal between bearings provides rigid foundation to maximize seal and bearing life

Rotor (Customised seal and Bushing Hardened)

Customized idler & bushing

Multiple port sizes, types, and ratings are available including (RF flanged, Class 150)



CAPACITY
to 308 GPM
(to 70m³/hr)



PRESSURE
to 200 PSI
(14 BAR)



VISCOSITY
-94°F to +500°F
(-70 to 260°C)



TEMPERATURE
1 to 4,50,000cp

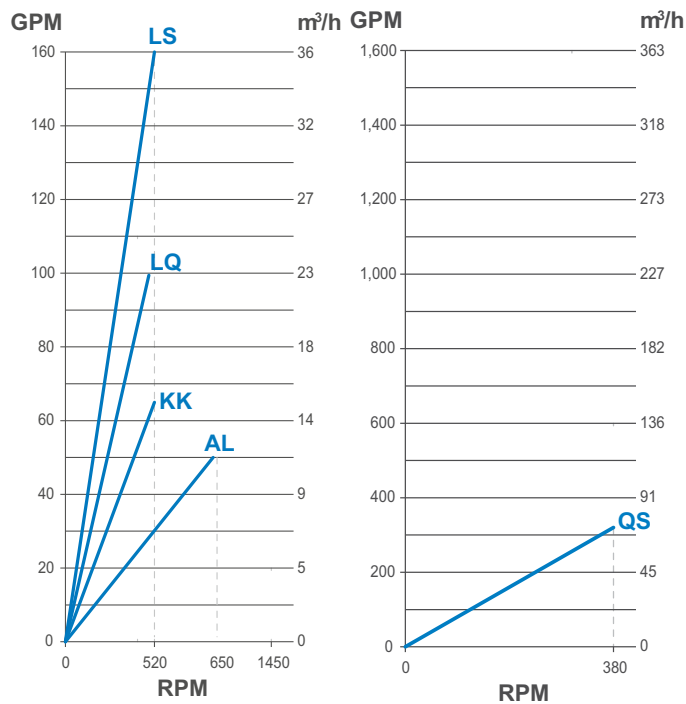
PERFORMANCE

MODELS

SPECIFICATIONS

Jacketed		Non-Jacketed		Performance			Standard Ports	
Packed Gland	Mechanical Seal	Packed Gland	Mechanical Seal	Max Speed, RPM	Flow Rate GPM	m ³ /h	Size, Inches	Type
AL227A	AL4227A	AL127A	AL4127A	650	53	12	2	Flange
KK227A	KK4227A	KK127A	KK4127A	520	65	15	2.5	Flange
LQ227A	LQ4227A	LQ127A	LQ4127A	520	100	23	3	Flange
LS227A	LS4227A	LS127A	LS4127A	520	176	40	4	Flange
QS227A	QS4227A	QS127A	QS4127A	380	308	70	6	Flange

CURVES (at 46 cSt)



PORTING

- Opposite (180° rotatable casing) AL-QS
- Flanged (ANSI)

SEALING

- Packing
- Component Mechanical Seal
- Cartridge Mechanical Seal
- Cartridge Triple Lip Seal
- O-pro Seal

MOUNTING

- Foot Mount

LIQUIDS

- Soaps, Detergents
- Surfactants
- Paint & Resin
- Adhesive & Sealants
- Polyol & Solvents
- Ink, Coating
- PU & Dyes
- Acids & Caustics
- Water-based Liquids
- Vegetable Oil
- General Chemicals

TESTING & CERTIFICATION

- Hydro test
 - Mechanical run test
 - Performance test (standard)
 - Noise test
 - Vibration test
 - NDT
- * (all this testing certification are optional)

DRIVES

- Motor coupled
- Gear box drive
- VFD drive
- V belt drive
- Trolley mounted unit

OPTIONS

- RF Flange
- FF Flange
- API 676 complied with minor deviations

MATERIALS OF CONSTRUCTION

Casing	316 SS
Head, Bracket	316 SS
Rotor shaft	XM 19 std (options available)
Rotor	316 SS
Idler	316 SS
Idler pin	Coated SS (options available)
Bushings	Carbon graphite (options available)
Pressure Relief valve	316 SS
Mechanical seal	SiC/SiC/PTFE (options available)

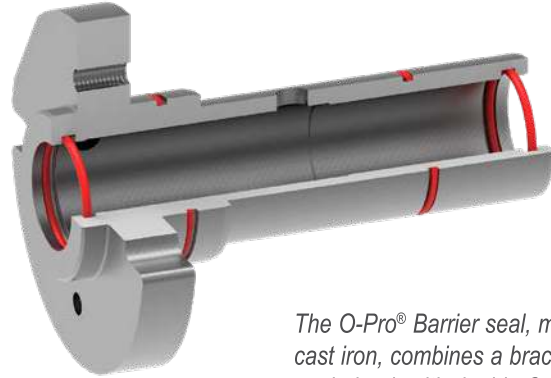
O-PRO® SEAL TECHNOLOGY - SIMPLE, PROVEN & RELIABLE

Viking Pump is the leader in internal gear innovation and the latest development is the patented O-Pro® Seal technology. O-Pro® Seals utilize a series of O-rings to create a robust seal and lubrication chamber, all in one. O-Pro® Barrier seal functions as both a seal and bracket bushing; O-Pro® Cartridge & Guard seals are simple retrofit options.

O-PRO® BARRIER SEAL (PATENTED)

HOW IT WORKS:

O-Pro® Barrier seal replaces packing or mechanical seal by occupying the internal bracket cavity with a machined seal gland, utilizing O-rings to seal externally on the bracket and internally on the shaft. A combination of O-rings and lubricating fluid provide a robust seal preventing process fluid from leaking out of the pump. O-Pro® Barrier design also contains lubrication between the shaft and bushing reducing wear.

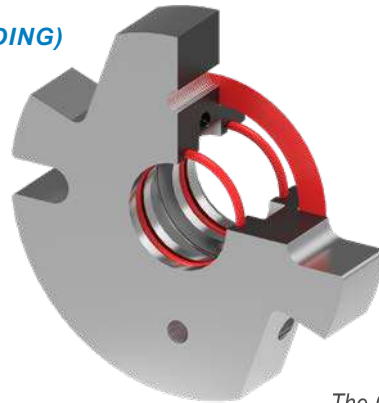


The O-Pro® Barrier seal, made of hardened cast iron, combines a bracket bushing and seal gland, with double O-ring seals, to stop process fluids from entering the bracket and eventually leaking from the pump.

O-PRO® CARTRIDGE SEAL (PATENT PENDING)

HOW IT WORKS:

O-Pro® Cartridge seal replaces packing or mechanical seal by using O-rings and gaskets to seal externally on the bracket and internally on the shaft. The combination of O-rings and lubricating fluid provide a robust seal, keeping process fluid from leaking out of the pump. The O-Pro® Cartridge seal allows for an easy retrofit while addressing any need for stainless steel seal construction.

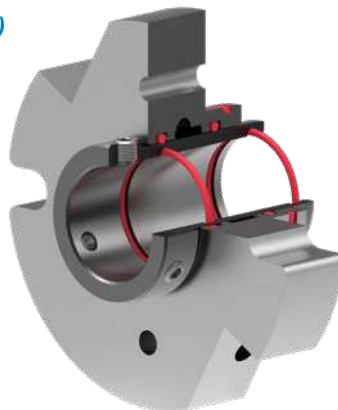


The O-Pro® Cartridge seal is a compact design for an easy retrofit answer for a leaking pump. Stainless steel construction provides compatibility in many applications.

O-PRO® GUARD SEAL (PATENT PENDING)

HOW IT WORKS:

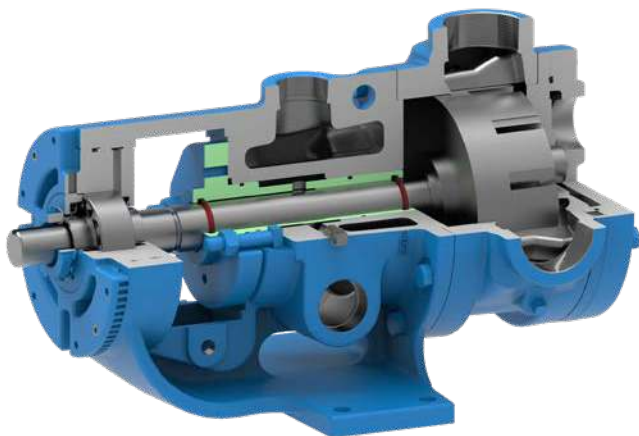
O-Pro® Guard seal replaces packing or mechanical seal by sealing between the bracket, sleeve & shaft surfaces with a series of O-rings. The series of O-rings and lubrication provide a robust seal for many applications. The stainless steel construction utilizes a sleeve that is secured to the shaft to address any shaft wear concerns to ensure superior performance.



The O-Pro® Guard seal is a compact design for an easy retrofit answer for a leaking pump. Stainless steel construction provides compatibility in many applications.

O-PRO® BARRIER

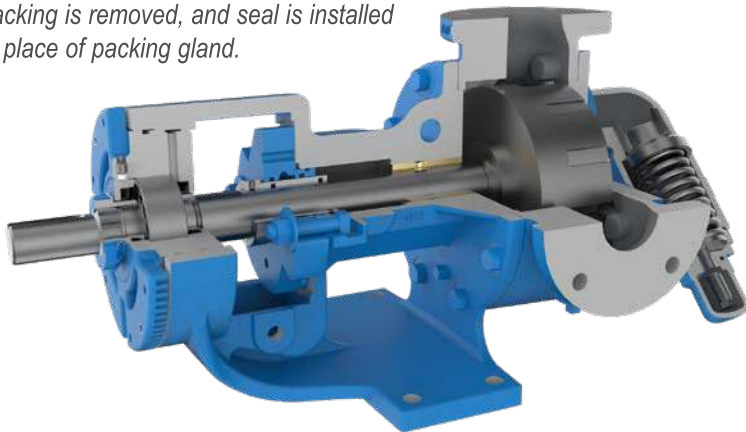
O-Rings trap clean lubrication **inside** the seal to reduce wear between the shaft and the bracket bushing, keeping all parts in optimal condition.



Back-pull-out bracket bushing for ease of seal replacement, jackscrews available for removal

O-PRO® GUARD & O-PRO® CARTRIDGE

Existing bracket bushing is utilized; packing is removed, and seal is installed in place of packing gland.



MAINTENANCE

All O-Pro® seals should be re-greased every 500 hours. The relief fitting enables visual inspection of the grease to ensure no process fluid leaks. Periodic re-tensioning is not required. O-Pro® seals may be removed with the pump in place to replace O-rings, by removing the bearing housing. Spacer couplings are required to provide enough room to remove the O-Pro® Barrier completely. Spacer couplings are not needed if the rotor/shaft is removed from the head end of the pump, which also makes it easier to re-install the O-Pro® Barrier and then re-install the rotor/shaft.

REDTROFITABILITY

The following existing Viking pump series may be retrofitted to utilize the O-Pro® seals:

124A Series™	324A Series™	227A Series™
4124A Series™	4324A Series™	4227A Series™
224A Series™	127A Series™	327A Series™
4224A Series™	4127A Series™	4327A Series™

Kits are available with all parts needed for conversion. If shafts are worn, new rotor/shafts may be required for conversion to ensure sealing. Q and QS size brackets may require modification or replacement, if using the O-Pro® Barrier, which is not included in the kits.

TYPICAL APPLICATIONS

Inks, paints, molasses, edible oils, corn syrup, honey, lube oil, grease, asphalt, wax, resins, starch, fats, isocyanates, adhesives and many more!

KIT PART NUMBERS

SEAL TYPE	H-HL	K-KK	L-LL	LS	Q-QS	M	N	R-RS
O-Pro® Barrier	3-464-SEAL-K450	3-464-SEAL-K451	3-464-SEAL-K452 (K452: 1 7/16")	3-464-SEAL-K453	3-464-SEAL-K454	N/A	3-464-SEAL-K471	3-464-SEAL-K472
O-Pro® Cartridge	N/A	3-464-SEAL-K503	3-464-SEAL-K504	3-464-SEAL-K505	3-464-SEAL-K506	3-464-SEAL-K507	3-464-SEAL-K508	3-464-SEAL-K509
O-Pro® Guard	3-464-SEAL-K482	3-464-SEAL-K483	3-464-SEAL-K484	3-464-SEAL-K485	3-464-SEAL-K486	3-464-SEAL-K487	3-464-SEAL-K488	3-464-SEAL-K489

NOTE: O-Pro® Cartridge Kit does not contain O-rings. O-ring kit must be purchased separately.

MAXIMUM RPM

SEAL TYPE	H	HL	K	KK	L	LQ	LL	LS	Q	QS	M	N	R	RS
O-Pro® Barrier	1000	1000	780	780	640	640	520	640	470	470	N/A	330	260	260
O-Pro® Cartridge	N/A	N/A	780	780	640	640	520	640	470	470	420	330	260	260
O-Pro® Guard	760	760	520	520	N/A	520	520	520	350	350	350	280	225	225



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