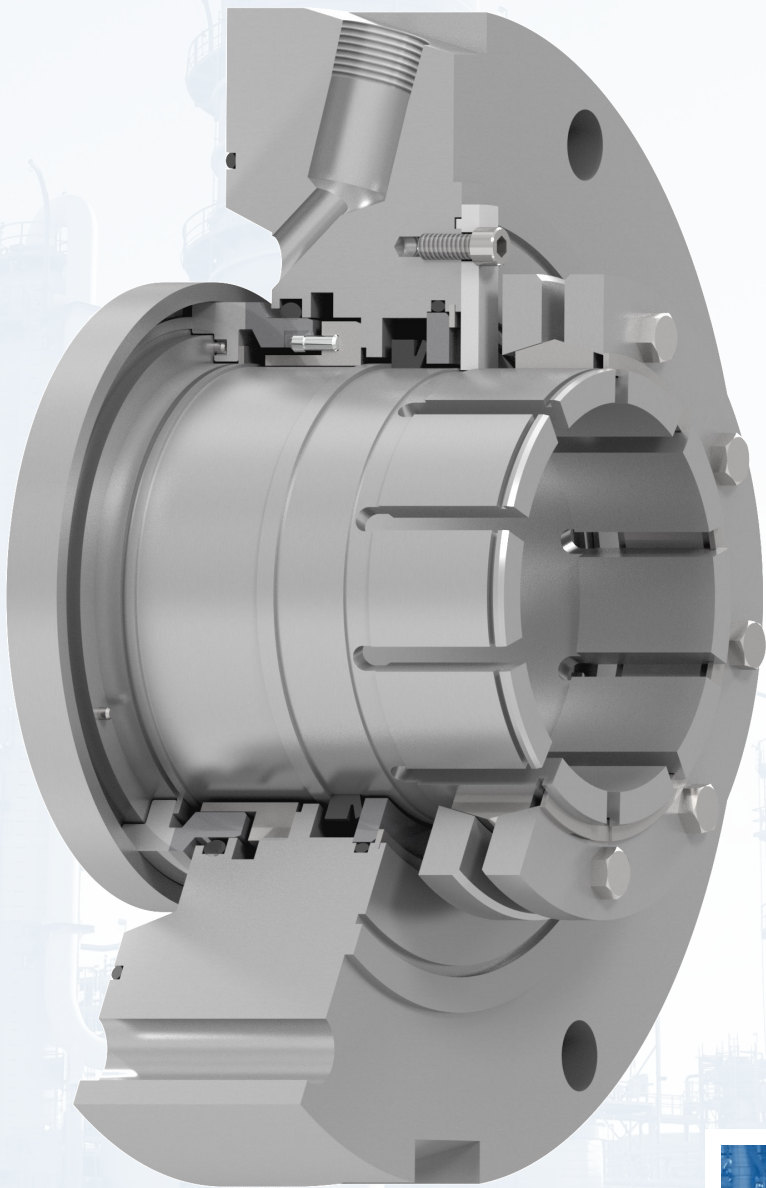




PSL Series Slurry Seals

Engineered seals for slurry handling services



CREATING SEALING SOLUTIONS THROUGH INNOVATIVE ENGINEERING
MADE IN THE USA

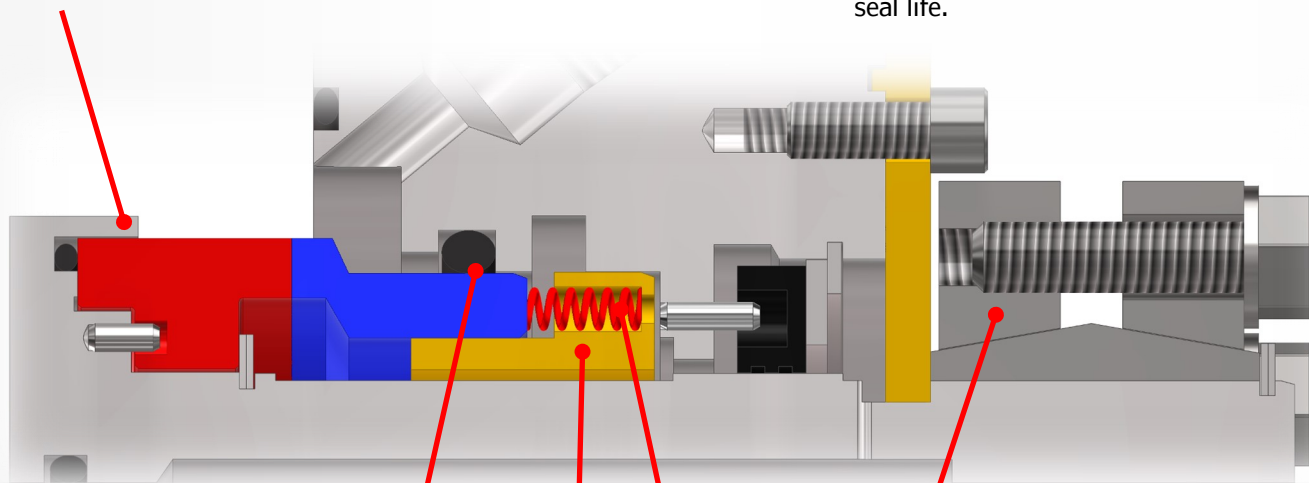
DESCRIPTION

Designed for use in heavy duty slurry equipment, the PSL Series of mechanical seals utilizes the latest in slurry design advances and innovations. PSL seals can be configured in multiple cartridge arrangements, depending on service and customer requirements.

With rugged seal face and drive design, along with coil springs located outside the product, the PSL can withstand the harshest of slurry services. Silicon carbide face materials and duplex stainless steel metallurgy provide a combination of excellent abrasion and corrosion resistance for high solids content and protection against aggressive services.

FEATURES

- **No external or recirculated flush required.** Reduces product dilution and operating costs from external seal water injection.
- **Rotary seal face shrouded** to protect from accidental damage during handling or installation. Design still allows for maximum allowable face exposure to product for cooling purposes.
- Standard **silicon carbide faces** provide optimal balance of abrasion resistance and low coefficient of friction.
- **Hydraulically balanced** seal design reduces heat generation at faces to promote greater seal life.



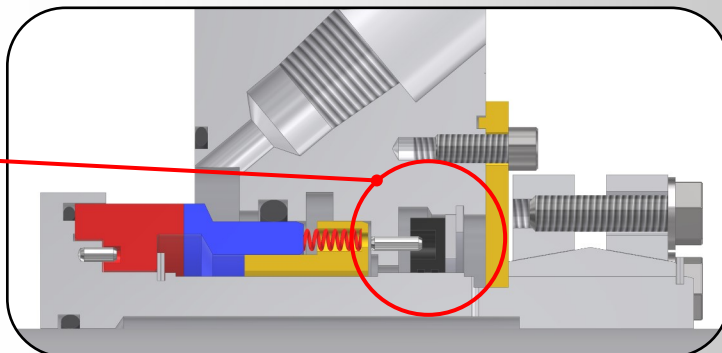
- **Large cross-section dynamic O-ring** provides greater sealing surface and reduces chance of hang up from solids build-up.
- Optional **quench diverter** provides path for quench through springs towards sealing interface. Prevents solids accumulation and can provide additional cooling of seal faces when used with a sufficient water flow rate.
- **Large internal clearances** accommodate equipment runout and resist product buildup.
- **Heavy duty split clamp and shrink disc drive collar designs** secure the seal cartridge, even on hardened shafts where traditional set screws may not be used.
- **Stationary coil springs** located outside the product. Coil springs accommodate equipment axial movement while stationary spring design resists centrifugal forces and self-aligns the seal faces to account for angular misalignment of the equipment.

SEAL CONFIGURATIONS

PSL Slurry Seals

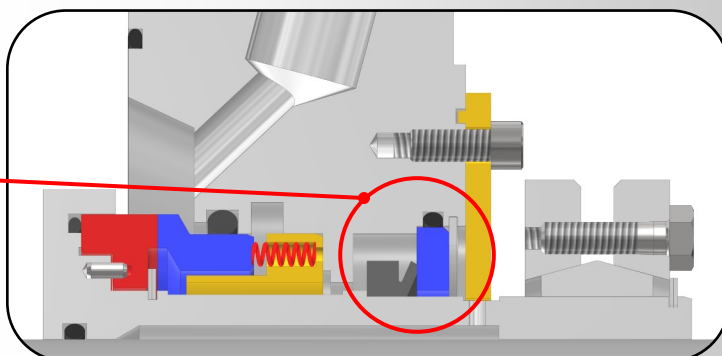
Single Seal with Gland Throttle Bushing

- Standard single cartridge arrangement with optional gland bushing for leakage containment and routing.



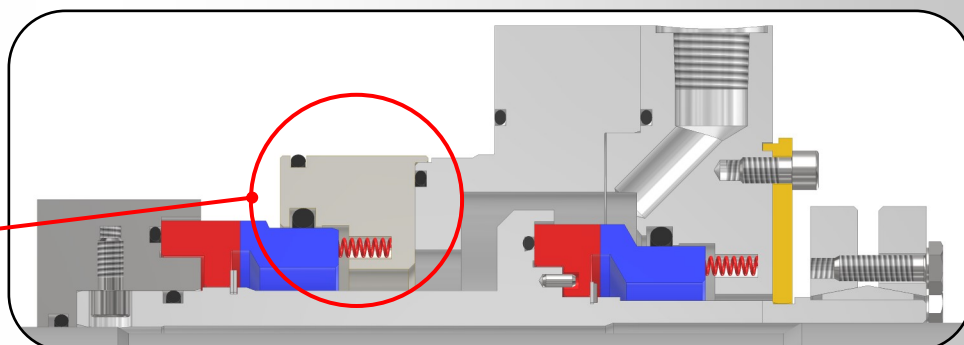
Single Seal with V-Ring Quench Containment

- V-ring and counter face provides positive seal for quench media
- Water quench also allows for cooling of seal faces and greater performance



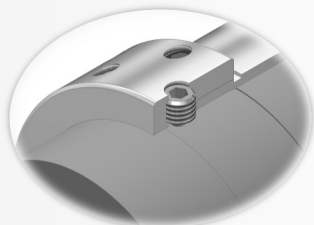
Double Seal for Severe or Dangerous Slurry Services

- Double seal provides maximum protection against slurry services
- Option for exotic wetted alloy parts for severe corrosive/abrasive services

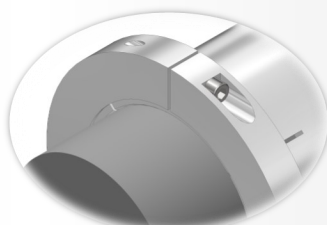


DRIVE COLLAR OPTIONS

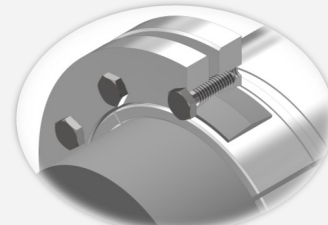
Set Screw Collar



Split Clamp Collar



Shrink Disc Collar



MATERIALS OF CONSTRUCTION

PSL Slurry Seals

- Metallurgy:** Duplex SS, 316 SS
Other materials available upon request
- Seal Faces:** Sintered Silicon Carbide, Reaction Bonded Silicon Carbide
Diamond-treated Sintered Silicon Carbide available
- Elastomers:** Fluoroelastomer (FKM), EPDM, AFLAS®, Perfluoroelastomer (FFKM)
Other materials available upon request
- Springs:** Alloy C-276

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OPERATING CONDITIONS

- Seal Chamber Pressure:** Up to 250 psig (17 bar g)
- Process Temperature:** Up to 175 °F (80 °C)
Up to 275 °F (135 °C) with water quench
- Surface Speed:** Up to 4500 fpm (23 m/s)
- Solids Content:** Up to 40% by weight (single seal)
Up to 60% by weight (double seal)
- Size Availability:** Shaft sizes 1.375" to 8.250"
Contact PPC for sizes outside this range

APPLICATIONS

- Mining
- FGD (Flue Gas Desulphurization)
- Saturated Brines
- Phosphate Production
- Dredging
- Waste Treatment
- Bauxite/Alumina
- Waste Water
- Tailings
- Potash
- Mash
- Salt
- Tar Sands
- Gypsum
- Calcium Carbonate
- Minerals



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