

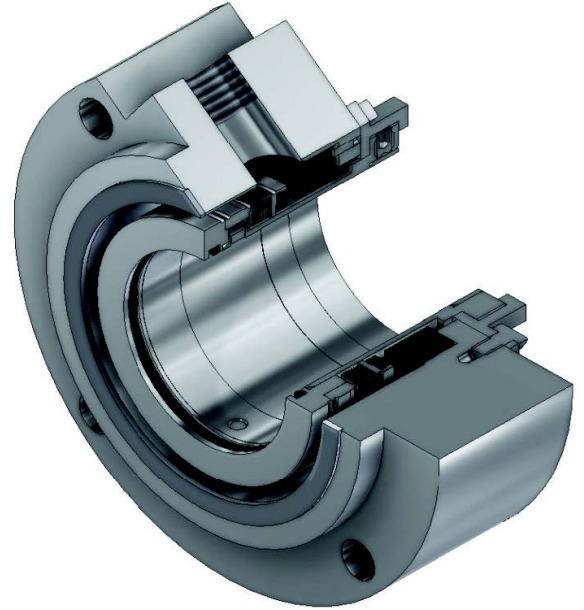
METAL BELLOWS CARTRIDGE SEAL FOR THE AQUARIUM INDUSTRY

CORROSION RESISTANT WELDED METAL BELLOWS CARTRIDGE SEAL FOR MARINE APPLICATIONS

Our latest development is a corrosion-resistant single welded metal bellows cartridge seal for the marine industry. This seal was designed specifically to fit Fybroc® pumps most commonly found in aquariums and zoos worldwide, without modification.

Our balanced welded metal bellows design offers superior performance due to the use of static O-rings, eliminating the traditional problems of seal hang-up and shaft fretting commonly seen in pusher seals with dynamic elastomers.

Our unique integrated **split collar ring** under the cup point set screws protects the shaft sleeve from damage, reducing the need to buy expensive OEM replacement parts.



ADVANTAGES

- Alloy C-276 rotating welded metal bellows – Self cleaning
- Only two static O-rings – No shaft fretting & no hang-up
- Split-collar design – Protects shaft sleeve from set screws
- Sleeve is isolated from product – Clean and easy removal
- O-rings located away from seal faces – Increasing lifespan
- Corrosion-resistant metallurgy – Repeated inexpensive repairs
- Exchange Program – Discounts based on competitor core exchange
- Fixed repair prices – No surprises when it's time to repair
- Easy Installation – No measurements or modifications required!
- Available in custom metallurgy and seal face materials
- The Aquarium RBX Seal is made in the USA

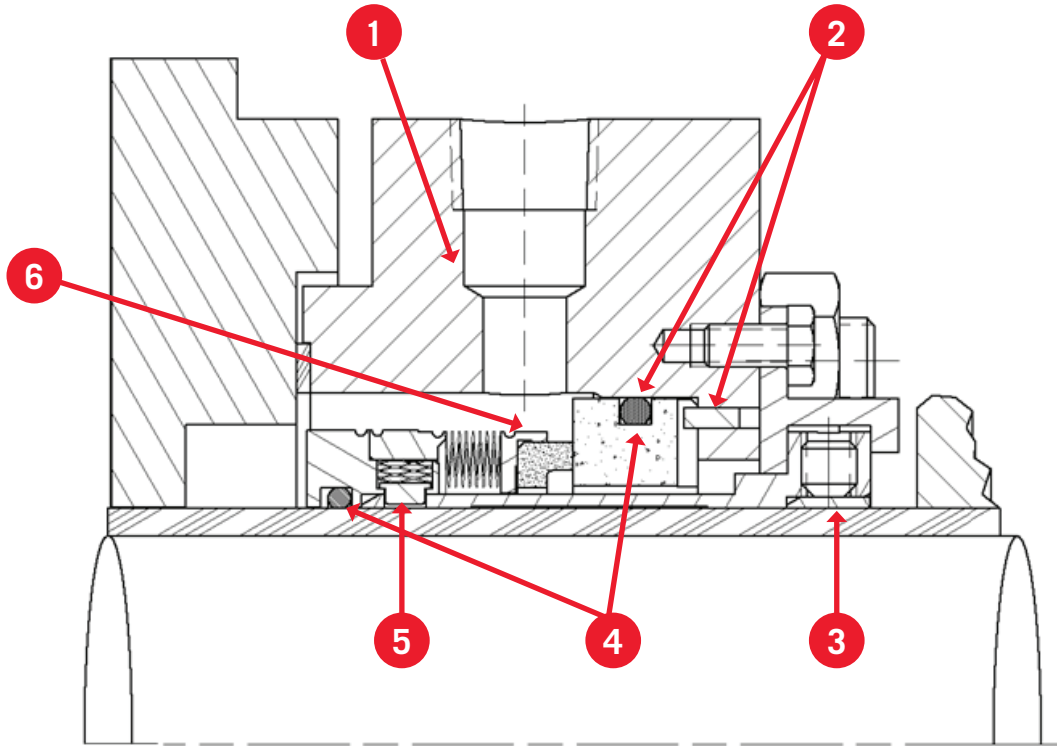
MATERIALS OF CONSTRUCTION

Rotary Face	Homogenous Structure of Graphite in Sintered Silicon Carbide
Stationary Face	Sintered Silicon Carbide
Optional Face Materials	Nickel Bound Tungsten Carbide, Carbon
Elastomers	FKM, TFEP, EPR, Perfluoroelastomers
Welded Metal Bellows	Alloy C-276
Other Wetted Metal Parts	Other alloys available
Non-Wetted Metal Parts	316 Stainless Steel

Dual Seal options also available

Design can be modified to fit other pump brands in similar applications

Fybroc® is a registered trademark of CECO Environmental IP Inc.



1. **Large vent/flush for cooling:** Vent/Flush port eliminates air buildup at start and ensures a cool, long-lasting seal.
2. **Anti-rotation pin / O-ring:** Creates a strong, stable mating ring face for superior face alignment and sealing.
3. **Split collar under set screws:** The original pump shaft or sleeve is protected from set screws by our metal split collar ring design. Improves life of your original equipment!
4. **Stationary O-ring design:** Static O-rings improve sealing capability over dynamic O-rings by eliminating hangup and fretting. O-rings are situated away from face mating location to improve life.
5. **Patented Plunger Lock Drive is located out of the product and sealed in a clean environment (Patent# US 7,979,986):** Eliminates sleeve deformation due to set screws. Will not back out due to vibration or pressure changes due to the

unique spring loaded mechanism keeping the lug trapped in position. Sleeve is non-wetted, located outside of product, so a more economical 316 stainless steel material can be used.

6. **Hydraulically balanced seal face:** Bellows seal is inherently balanced, lowering face heat generation over a wider range of pressures and increasing seal life.

Corrosion-resistant metallurgy: The use of robust metals that resist corrosion is critical in demanding aquarium applications. All wetted parts are protected from corrosive product.

Simple, rugged cartridge seal design is easily installed: One piece design is easy to assemble, install, and repair. Custom seals can be made to fit unique applications.