

# METAL BELLOWS CARTRIDGE SEAL FOR THE AQUARIUM INDUSTRY

## Corrosion Resistant Welded Metal Bellows Cartridge Seal for Marine Applications

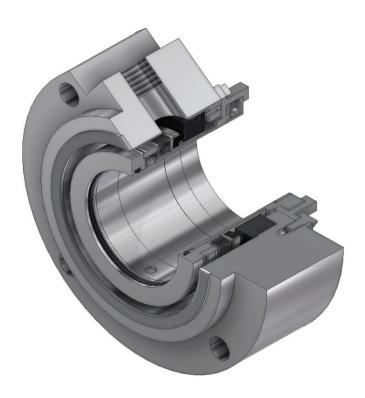
Our latest development is a corrosion-resistant single welded metal bellows cartridge seal for the marine industry. This seal was designed specifically to fit Fybroc® pumps most commonly found in Aquariums and Zoos worldwide, without modification.

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**

- Hastelloy®-C 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
- 0-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: Aflas®, Viton®, EPR, Kalrez®, Chemraz®

Welded Metal Bellows: Hastelloy® C-276

Other Wetted Metal Parts: Duplex Stainless Steel (Alloy 255)

(Hastelloy® C-276 and 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



## **MARINE-STYLE RBX SEAL**

## Flex-A-Seal Aquarium Specialty Cartridge Seal

#### Large Vent/Flush for Cooling

 Vent/Flush port eliminates air buildup at start and ensures a cool, long-lasting seal \

#### **Hydraulically Balanced Seal Face**

 Bellows seal is inherently balanced, lowering face heat generation over a wider range of pressures and increasing seal life

## 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 application

# U.S. 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.



 Creates a strong, stable mating ring face for superior face alignment and sealing.

#### **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

#### **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!

#### 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.



Flex-a-Seal also offers an economical direct OEM replacement mechanical seal, utilizing the existing Fybroc® composite gland.

Improving upon the existing OEM design, we have added our unique <u>split collar</u> to protect the shaft sleeve, replicating the benefit of the sleeve-protection offered on our RBX Aquarium Seal.



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