



***GX-200***

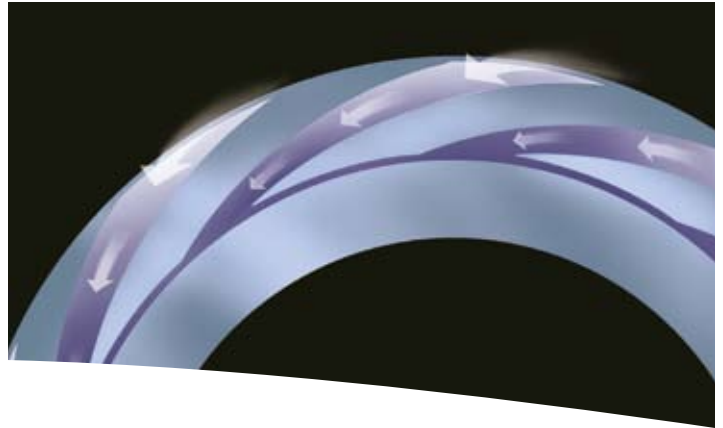
***Gas barrier seal***

for standard bore seal chambers



***Experience In Motion***

*The GX-200 utilizes advanced non-contacting Precision Face Topography for outstanding performance in a wide variety of applications.*



## **Exclusive non-contacting face technology extends equipment life and increases energy savings**

The GX-200 is a gas barrier seal that offers zero emissions, increased energy savings, and increased reliability. It is specifically engineered to fit standard or small bore seal chambers without requiring pump modifications.

The GX-200 combines these engineering advances:

- Proven Advanced Pattern Groove (APG) Precision Face Topography for non-contacting seal face operation
- Reliable metal bellows design for long life operation
- Simple installation of a cartridge design

### **Reduce operation and maintenance costs**

- Provides zero product emissions performance even under off-design or dry running conditions that cause sealless pumps to fail.
- Eliminates the costs of maintaining a liquid barrier system and eliminates barrier fluid contamination of the process.
- Delivers cost and performance advantages over sealless pumps.

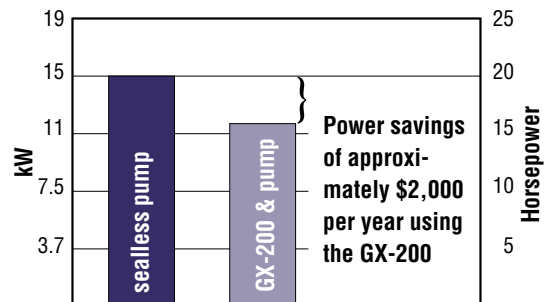
The GX-200 is designed for applications in the chemical processing, hydrocarbon processing, pulp and paper, pharmaceutical and food processing industries. The pressurized dual seal configuration provides outstanding performance in processing environments and helps facilitate compliance with hazardous emissions regulations.

### **Unique face pattern is key to zero emissions and long life**

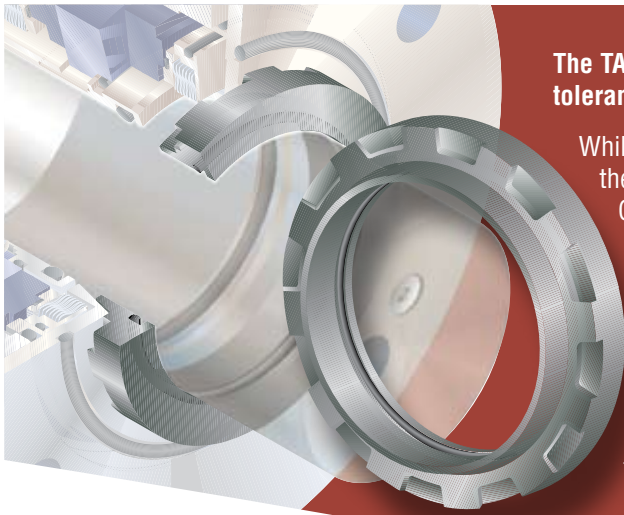
The exclusive face pattern contains special shallow grooves to provide both hydrostatic and hydrodynamic lift of the seal faces. This results in reduced energy consumption during pump start-up and operation, and no seal face wear.

### **Lowest operating cost solution in conventional pumps**

Sealless pumps require approximately 25% more power to achieve the same flow and head as a conventional pump sealed with a GX-200.



*Comparison based on pumps of similar flow and head operating 365 days a year, 24 hours a day.*



**The TARSEx bushing improves the tolerance of solids in the process**

While the equipment is operating, the tapered retaining plate on the GX-200 develops a vortex that reverses the direction of the solids, keeping them out of the seal face cavity. The TARSEx bushing contributes to this effect with a matching taper under the retaining plate and vertical open vane grooves to further deny particle ingress.



**Materials of Construction**

- Stationary Face** Premium Resin Grade Carbon, Direct Sintered Silicon Carbide
- Rotating Face** Direct Sintered Silicon Carbide
- Metal Components** 316 Stainless Steel, Alloy C-276
- Gaskets** Fluoroelastomer, Perfluoroelastomer
- Metal Bellows** Alloy C-276, Alloy 718

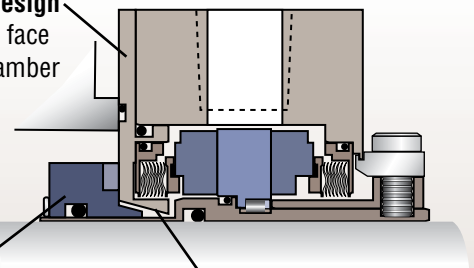
**Standard Operating Limits**

- Pressure** Up to 13.8 bar (200 psi)
- Temperature** -40 to 260°C (-40 to 500°F)
- Surface Speed** 2.5 to 35 m/s (8.2 to 115 fps)
- Shaft Sizes** 25.40 to 76.20 mm (1.000 - 3.000 inch)

**External design** mounts to face of seal chamber

**Optional TARSEx tapered solids exclusion bushing**

**Tapered shroud** protects bellows and redirects particulates



**Inner and outer stators flexibly mounted** to minimize face deflection

**Exclusive balance piston** allows for positive process sealing during pressure upset conditions by hydraulically closing the inner faces

**Gas barrier inlet tap**

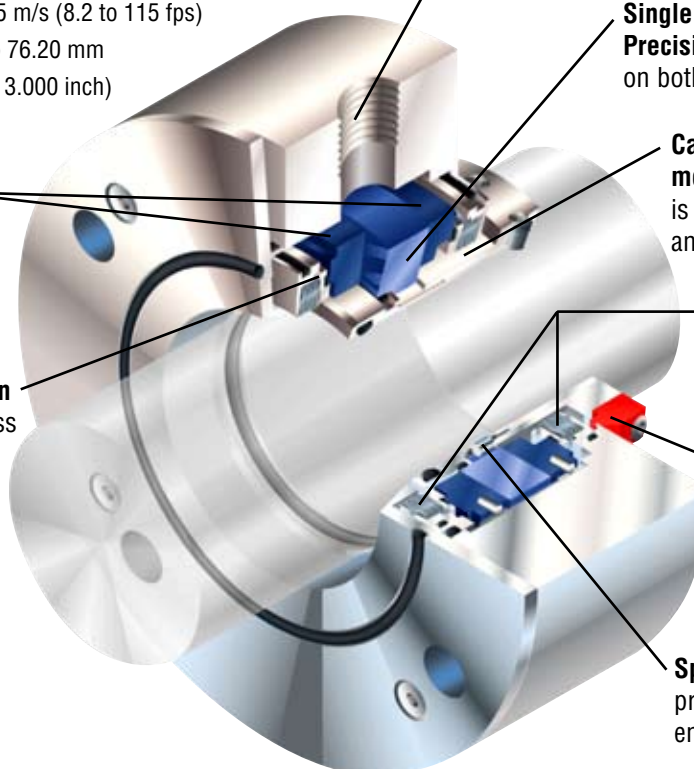
**Single rotor with APG Precision Face Topography** on both sealing surfaces

**Cartridge sleeve assembly** mounts to pump shaft and is preassembled, preset, and factory tested

**Dual-ply non-vented bellows** eliminates dynamic O-ring hang-up

**Centering tabs** ensure the seal is properly centered to the shaft during installation

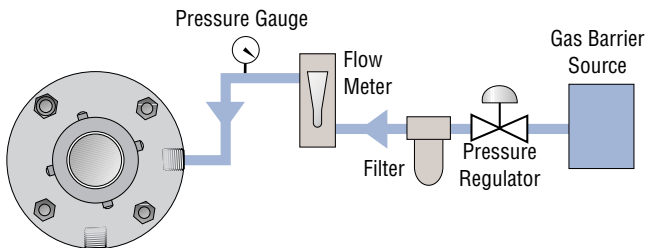
**Special rotor drive key** provides enhanced positive engagement





## **Easier to install and maintain than closed-loop liquid barrier seals**

Unlike complicated liquid barrier supply systems, the clean gas supply system required for the GX-200 is simple to install and maintain. Just tap into a gas supply header and install a pressure regulator, filter, flow meter, and pressure gauge. Because the gas is dead-ended in the seal, no purge or continuous flow-through is needed.



An optional gas barrier control panel is available for the GX-200. This compact, self-contained, easy-to-use unit includes all controls necessary for simple, efficient seal operation. It also eliminates the time, expense and hassle of installing each component separately.



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