

# Flow Solutions Division

Durametallic Seals

**GF-200** 

Dual, non-contacting, pusher, gas barrier design is used in applications where no emissions of hazardous pumped products can be tolerated. An inert gas barrier, such as nitrogen, is utilized to eliminate contamination or dilution of the process system, which is common with liquid barriers. Advanced Pattern Groove System faces insure low speed lift-off, low gas leakage and no face contact. Surpasses performance of single and dual liquid seals and sealless pumps, particularly with regard to lower power consumption and increased reliability during off-design pump operation.

## Features/Benefits

- True zero leakage dual seal eliminates the requirement of VOC fugitive emission monitoring.
- Non-contacting seal faces use APGS¹ technology to reduce wear and extend seal life.
- Utilizes patented LoDrag<sup>™2</sup> o-ring technology.
- Eliminate liquid barrier supply systems and their maintenance problems.
- Seal works with a simple gas barrier support system and inert gas source.
- Reduced horsepower consumption during start-up and running operation.
- Factory preset cartridge design simplifies assembly on pump.

Bench testable design allows for field testing before installation on pump.

## **Materials of Construction**

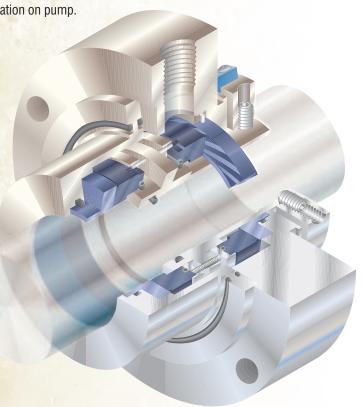
- · Housing and gland ring: 316 Stainless Steel (standard)
- Sleeve and sleeve collar: 316 Stainless Steel (standard)
- Rotors: Premium resin grade carbon (standard)
   Direct sintered silicon carbide and
   Nickel-bound tungsten carbide (optional)
- Stators: Direct sintered silicon carbide (standard)
   Nickel-bound tungsten carbide (optional)
- Elastomers: Fluoroelastomers, EPR, and perfluoroelastomers (other elastomers are also available)

## **Operating Parameters**

• Pressure: To 500 psig (3450 kPa)

• Temperature: To 500°F (260°C)

Speed: 250 to 5000 fpm (1.3 to 25 m/s)
Standard Sizes: 1" to 6" (25 to 152 mm)



<sup>1</sup> U.S. Patent No. 5,556,111

<sup>2</sup> Registered trademark of Flowserve Corporation.



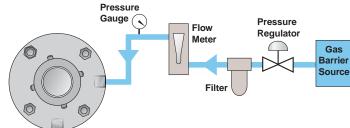
BW Seals Durametallic Seals Pacific Wietz Seals Pac-Seal

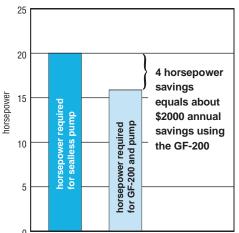
#### Simple seal installation and piping

The preset cartridge design makes installation of the GF-200 easy by eliminating the need for measuring, centering or special tools. After sliding it on the shaft, just tighten the gland

bolts and set screws, remove the centering tabs and it is ready for equipment start-up. Piping for the GF-200 is much

simpler than with liquid barrier supply systems. Just tap into a barrier gas header and install a pressure gage, flow meter and a regulator.





#### Decrease operating costs in a conventional pump

The advanced face design of the GF-200 means a conventional pump will require about 25% less horsepower to achieve the same flow and head than with a sealless pump. The GF-200 is designed to provide leakfree performance under conditions that can cause sealless pumps and conventional liquid barrier dual seals to fail.

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



A compact, self-contained, easy to use auxiliary control system for the GF-200 is also available from Flowserve. It includes all controls for reliable, efficient seal operation and eliminates the time, expense and hassle of installing each component separately.



The information and specifications presented in this product brochure are believed to be accurate, but are supplied for information purposes only and should not be considered certified or as a guarantee of satisfactory results by reliance thereon. Nothing contained herein is to be construed as a warranty or guarantee, express or implied, with respect to the product. Although Flowserve Corporation can provide general application guidelines, it cannot provide specific information for all possible applications. The purchaser/user must therefore assume the ultimate responsibility for the proper selection, installation, operation and maintenance of Flowserve products. Because Flowserve Corporation is continually improving and upgrading its product design, the specifications, dimensions and information contained herein are subject to change without notice.

#### Primary Worldwide Flow Solutions Division Locations

United States

Kalamazoo, MI Temecula, CA
Phone 616-381-2650 Phone 909-676-5662

Phone 616-381-2650 Fax 616-381-8368

**Singapore** Phone 65-746-4318 Fax 65-747-1963 Mexico Tlaxcala Phone 52-2-461-6791 Fax 52-2-461-6847

Fax 909-308-4495

Edmonton, Alberta

Phone 708-463-7958 Fax 708-450-1241

**Brazil**Sao Paulo
Phone 55-11-4066-8600
Fax 55-11-4066-7014

Scarborough, Ontario Phone 416-292-2877 Fax 416-292-5190

**Japan** Osaka Phone 81-720-85-5571 Fax 81-720-85-5575 **Netherlands** Roosendaal Phone 31-165-581-400 Fax 31-165-552-622

**Germany**Dortmund
Phone 49-231-6964-0
Fax 49-231-6964-248

Phone 54-261-427-2300 Fax 54-261-427-2524

Mendoza

Marayong NSW Phone 61-2-8822-7100 Fax 61-2-9679-7511

Argentina

Licensees, authorized agents, and affiliated companies located worldwide.

www.flowserve.com