

GX-200 Gas barrier seal

for standard bore seal chambers





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.

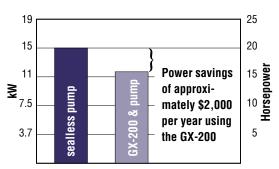
The GX-200 is designed for applications in the chemical processing, hydrocarbon processing, pulp and paper, pharmaceutical and food processing industries. The pressurized dual seal configuration provides outstanding performance in processing environments and helps facilitate compliance with hazardous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

Unique face pattern is key to zero emissions and long life

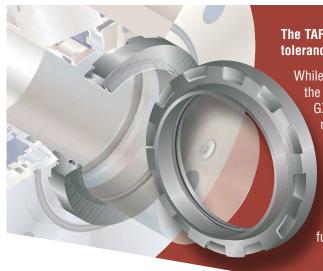
The exclusive face pattern contains special shallow grooves to provide both hydrostatic and hydrodynamic lift of the seal faces. This results in reduced energy consumption during pump start-up and operation, and no seal face wear.

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 ingression.

External design.

mounts to face

of seal chamber

Optional TARSEx



Materials of Construction

Stationary Face Premium Resin Grade Carbon,

Direct Sintered Silicon Carbide

Rotating Face Direct Sintered Silicon Carbide

Metal Componets 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) **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

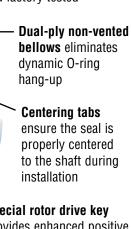
tapered solids protects bellows and exclusion bushing redirects particulates Gas barrier inlet tap Single rotor with APG **Precision Face Topography** on both sealing surfaces

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

Tapered shroud

bellows eliminates dynamic O-ring hang-up

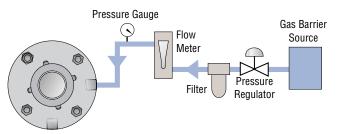
Special rotor drive key provides enhanced positive engagement





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.



FSD105eng REV 08-12 Printed in USA

To find your local Flowserve representative

and find out more about Flowserve Corporation, visit www.flowserve.com

Flowserve Corporation has established industry leadership in the design and manufacture of its products. When properly selected, this Flowserve product is designed to perform its intended function safely during its useful file. However, the purchaser or user of Flowserve products should be aware that Flowserve products might be used in numerous applications under a wide variety of industrial service conditions. Although Flowserve can provide general quidelines, it cannot provide specific data and varnings for all possible applications. The purchaser/user must therefore assume the ultimate responsibility for the proper sizing and selection, installation, operation, and maintenance of Flowserve products. The purchaser/user should read and understand the Installation instructions included with the product, and train its employees and contractors in the safe use of Flowserve products in connection with the specific application.

While the information and specifications contained in this literature are believed to be accurate, they are supplied for informative purposes only and should not be considered certified or as a quarantee of satisfactory results by reliance thereon. Nothing contained herein is to be construed as a warranty or quarantee, express or implied, regarding any matter with respect to this product. Because Flowserve is continually improving and upgrading its product design, the specifications, dimensions and information contained herein are subject to change without notice. Should any question arise concerning these provisions, the purchaser/user should contact Flowserve Corporation at any one of its worldwide operations or offices.

© 2012 Flowserve Corporation

USA and Canada

Kalamazoo, Michigan USA Telephone: 1 269 381 2650 Telefax: 1 269 382 8726

Europe, Middle East, Africa

Roosendaal, The Netherlands Telephone: 31 165 581400 Telefax: 31 165 554590

Asia Pacific

Singapore Telephone: 65 6544 6800 Telefax: 65 6214 0541

Latin America

Mexico City Telephone: 52 55 5567 7170 Telefax: 52 55 5567 4224