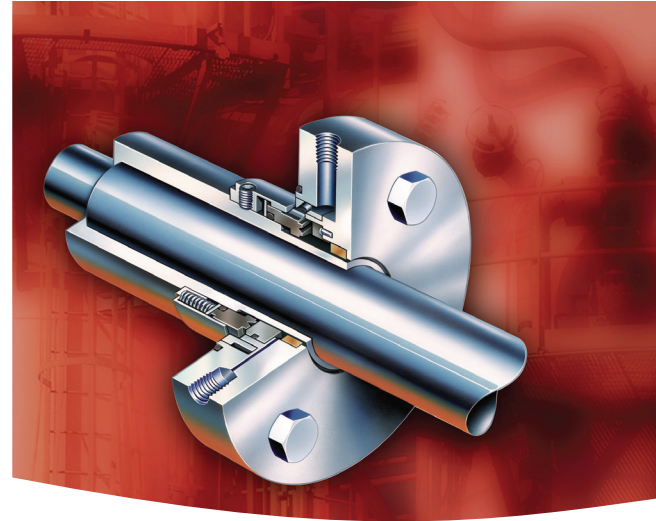


QBU Series Hot water seals

QBU Series seals are single pusher seals designed specifically for hot water services including moderate pressure boiler feed and circulation pumps. QBU Seals utilize Lube Groove face technology to increase reliability over conventional seals in services where cooling water is not available or when energy savings are desired.



Features and Benefits

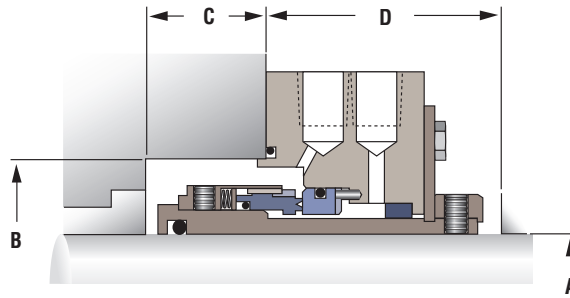
- Lube Groove features in the carbon rotating face create a stable fluid condition on the seal faces that enables the QBU seal to operate at much higher temperatures than conventional flat-face seals.
- No external cooling is required at temperatures up to 170°C (340°F), thus saving energy, maintenance, and hardware costs associated with cooling water and support systems.
- Multiport flush in the seal gland improves heat dissipation for uniform seal face cooling and long seal life.
- Adding a Plan 21 cooling flush for services above 170°C (340°F) is straightforward and requires no seal hardware modifications.
- Compact design is furnished as a cartridge or component assembly for simple and reliable installation on hot water pumps.
- Part interchangeability between conventional QB seals minimizes inventory requirements and allows faster repair cycles.

Operating Parameters

| | |
|------------------------------|--|
| Pressure | Up to 17.6 bar (255 psi) |
| Vapor Pressure Margin | Minimum 2 bar (30 psi) |
| Temperature | Plan 11: Up to 170°C (340°F) Plan 21: Up to 204°C (400°F) |
| Shaft Speed | 750 rpm to 20 m/s (65 fps) |
| Shaft Size | 12.7 to 139.7 mm (0.500 to 5.500 inch) |

Materials of Construction

| | |
|-------------------------|---|
| Metal Components | 316 Stainless Steel |
| Rotating Face | Carbon |
| Stationary Face | Silicon Carbide |
| Gaskets | Fluoroelastomer, Perfluoroelastomer, EPR |
| Springs | Alloy C-276 |



Dimensional Data in millimeters

in inches

| Seal Size | A Max | B Min | C Min | D Min |
|-----------|-------|-------|-------|-------|
| 0875 | 12.70 | 43.64 | 35.71 | 51.59 |
| 0937 | 14.30 | 44.45 | 35.71 | 51.59 |
| 1000 | 15.88 | 46.81 | 35.71 | 51.59 |
| 1125 | 19.05 | 49.99 | 37.29 | 51.59 |
| 1250 | 20.65 | 53.16 | 36.50 | 52.40 |
| 1375 | 22.23 | 56.34 | 36.50 | 52.40 |
| 1500 | 25.40 | 59.51 | 36.50 | 56.36 |
| 1625 | 28.58 | 65.86 | 45.24 | 56.36 |
| 1750 | 31.75 | 69.04 | 45.24 | 56.36 |
| 1875 | 34.93 | 72.21 | 43.64 | 60.33 |
| 2000 | 38.10 | 75.30 | 49.23 | 63.50 |
| 2125 | 41.28 | 80.16 | 50.80 | 63.50 |
| 2250 | 44.45 | 83.34 | 50.80 | 63.50 |
| 2375 | 47.63 | 86.51 | 49.99 | 65.89 |
| 2500 | 50.80 | 89.69 | 49.99 | 65.89 |
| 2625 | 53.98 | 97.61 | 57.15 | 66.68 |
| 2750 | 57.15 | 100.8 | 57.15 | 66.68 |
| 2875 | 60.33 | 104.0 | 57.15 | 66.68 |
| 3000 | 63.50 | 107.1 | 57.15 | 70.64 |
| 3125 | 66.68 | 110.3 | 57.15 | 70.64 |
| 3250 | 69.85 | 113.5 | 57.15 | 70.64 |
| 3375 | 73.03 | 116.7 | 57.15 | 73.81 |
| 3500 | 76.10 | 119.0 | 54.76 | 76.20 |
| 3625 | 79.38 | 123.0 | 54.76 | 76.20 |
| 3750 | 82.55 | 126.2 | 54.76 | 76.99 |
| 3875 | 85.73 | 128.6 | 54.76 | 76.99 |
| 4000 | 88.90 | 131.7 | 54.76 | 76.99 |
| 4125 | 92.08 | 141.3 | 56.34 | 80.98 |
| 4250 | 95.25 | 144.4 | 56.34 | 80.98 |
| 4375 | 98.43 | 147.6 | 56.34 | 81.76 |
| 4500 | 101.6 | 150.8 | 56.34 | 81.76 |
| 4625 | 104.8 | 154.0 | 53.98 | 84.15 |
| 4750 | 108.0 | 157.1 | 53.98 | 84.15 |
| 4875 | 111.1 | 160.3 | 53.98 | 84.15 |
| 5000 | 114.3 | 163.5 | 53.98 | 84.15 |
| 5125 | 117.5 | 166.7 | 53.98 | 84.15 |
| 5250 | 120.7 | 176.2 | 58.72 | 84.15 |
| 5375 | 123.8 | 179.4 | 58.72 | 84.15 |
| 5625 | 130.2 | 185.7 | 58.72 | 84.15 |
| 5750 | 133.4 | 188.9 | 58.72 | 84.15 |
| 5875 | 136.5 | 192.1 | 61.90 | 90.50 |
| 6000 | 139.7 | 195.2 | 61.90 | 90.50 |

| Seal Size | A Max | B Min | C Min | D Min |
|-----------|-------|-------|-------|-------|
| 0875 | 0.500 | 1.718 | 1.406 | 2.031 |
| 0937 | 0.563 | 1.750 | 1.406 | 2.031 |
| 1000 | 0.625 | 1.843 | 1.406 | 2.031 |
| 1125 | 0.750 | 1.968 | 1.468 | 2.031 |
| 1250 | 0.813 | 2.093 | 1.437 | 2.063 |
| 1375 | 0.875 | 2.218 | 1.437 | 2.063 |
| 1500 | 1.000 | 2.343 | 1.437 | 2.219 |
| 1625 | 1.125 | 2.593 | 1.781 | 2.219 |
| 1750 | 1.250 | 2.718 | 1.781 | 2.219 |
| 1875 | 1.375 | 2.843 | 1.718 | 2.375 |
| 2000 | 1.500 | 2.968 | 1.937 | 2.500 |
| 2125 | 1.625 | 3.156 | 2.000 | 2.500 |
| 2250 | 1.750 | 3.281 | 2.000 | 2.500 |
| 2375 | 1.875 | 3.406 | 1.968 | 2.594 |
| 2500 | 2.000 | 3.531 | 1.968 | 2.594 |
| 2625 | 2.125 | 3.843 | 2.250 | 2.625 |
| 2750 | 2.250 | 3.968 | 2.250 | 2.625 |
| 2875 | 2.375 | 4.093 | 2.250 | 2.625 |
| 3000 | 2.500 | 4.218 | 2.250 | 2.781 |
| 3125 | 2.625 | 4.343 | 2.250 | 2.781 |
| 3250 | 2.750 | 4.468 | 2.250 | 2.781 |
| 3375 | 2.875 | 4.593 | 2.250 | 2.906 |
| 3500 | 3.000 | 4.687 | 2.156 | 3.000 |
| 3625 | 3.125 | 4.843 | 2.156 | 3.000 |
| 3750 | 3.250 | 4.968 | 2.125 | 3.031 |
| 3875 | 3.375 | 5.062 | 2.125 | 3.031 |
| 4000 | 3.500 | 5.187 | 2.125 | 3.031 |
| 4125 | 3.625 | 5.562 | 2.218 | 3.188 |
| 4250 | 3.750 | 5.687 | 2.218 | 3.188 |
| 4375 | 3.875 | 5.812 | 2.218 | 3.219 |
| 4500 | 4.000 | 5.937 | 2.218 | 3.219 |
| 4625 | 4.125 | 6.062 | 2.125 | 3.313 |
| 4750 | 4.250 | 6.187 | 2.125 | 3.313 |
| 4875 | 4.375 | 6.312 | 2.125 | 3.313 |
| 5000 | 4.500 | 6.437 | 2.125 | 3.313 |
| 5125 | 4.625 | 6.562 | 2.125 | 3.313 |
| 5250 | 4.750 | 6.937 | 2.312 | 3.313 |
| 5375 | 4.875 | 7.062 | 2.312 | 3.313 |
| 5625 | 5.125 | 7.312 | 2.312 | 3.313 |
| 5750 | 5.250 | 7.437 | 2.312 | 3.313 |
| 5875 | 5.375 | 7.562 | 2.437 | 3.563 |
| 6000 | 5.500 | 7.687 | 2.437 | 3.563 |

Note: For additional sizes and conditions not listed, contact your local Flowserve representative.

FSD175eng REV 06-18 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 life. 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 products can provide general guidelines, it cannot provide specific data and warnings 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 guarantee of satisfactory results by reliance thereon. Nothing contained herein is to be construed as a warranty or guarantee, 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.
© Flowserve Corporation (2011)

USA and Canada

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

Europe, Middle East, Africa

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

Asia Pacific

Singapore
Telephone: 65 6544 6800
Telex: 65 6214 0541

Latin America

Mexico City
Telephone: 52 55 5567 7170