

KLOZURE® DYNAMIC SEALS

## Bearing Isolator Family

### The Best Alternative to Radial Lip Seals

**Over 90% of bearing failures are caused by contamination.**

Replacing a lip seal with a KLOZURE® Bearing Isolator will extend equipment life and add profit to your bottom line. Conventional lip seals fail to exclude water and other contaminants from entering into the lubricant. Lip seals also have an unpredictable life, generate frictional heat, score the shaft surface, and cause increased energy consumption due to the frictional drag on the shaft.

#### KLOZURE® Bearing Isolators feature:

- ▶ Metallic and non-metallic design
- ▶ Non-contacting seals
- ▶ No wear on shaft, bore or bronze components
- ▶ Unitized design
- ▶ Easy installation – no arbor press required
- ▶ Standard fluoroelastomer O-rings
- ▶ Reusable
- ▶ No debris generation




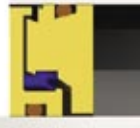




#### Typical Applications:

- ▶ Pump bearing frames
- ▶ Electric motors
- ▶ Gear boxes
- ▶ Split pillow block bearings
- ▶ Fans



EQUALIZER® Bearing Isolator, ISO-GARD® Bearing Isolator, GUARDIAN™ Metallic Bearing Isolator





# GUARDIAN™ Metallic Bearing Isolator

| GUARDIAN™   | Features   | Material  | Temperature                    | Surface Speed         | Axial Motion                           | Misalignment & Runout                  | Pressure           |
|---|--|---|--------------------------------|-----------------------|--|--|--------------------|
| <b>Standard Design</b><br>29602<br>  | <ul style="list-style-type: none"> <li>No internal metal-to-metal contact</li> <li>Meets NEMA MG 1-2003</li> <li>Surpasses IEEE 841-2001 test standards</li> </ul>   | <ul style="list-style-type: none"> <li>Bronze*</li> <li>Filled PTFE unitizing ring</li> <li>Fluoroelastomer O-rings standard</li> </ul> | -30°F (-34°C) to 400°F (204°C) | 12,000 fpm (60.9 m/s) | ± 0.025" (0.64mm)                      | ± 0.020" (0.51mm)                      | Ambient            |
| <b>Small Cross Section</b><br>29607<br>  | <ul style="list-style-type: none"> <li>No internal metal-to-metal contact</li> <li>Meets NEMA MG 1-2003</li> <li>Surpasses IEEE 841-2001 test standards</li> <li>Fits in c/s as small as 0.188" (4.76mm)</li> </ul>            | <ul style="list-style-type: none"> <li>Bronze*</li> <li>Filled PTFE unitizing ring</li> <li>Fluoroelastomer O-rings standard</li> </ul> | -30°F (-34°C) to 400°F (204°C) | 12,000 fpm (60.9 m/s) | ± 0.015" (0.38mm)                      | ± 0.010" (0.25mm)                      | Ambient            |
| <b>Flangeless</b><br>29619<br>  | <ul style="list-style-type: none"> <li>No internal metal-to-metal contact</li> <li>Meets NEMA MG 1-2003</li> <li>Meets IEEE 841-2001 test standards</li> <li>Does not extend past face of housing</li> </ul>                   | <ul style="list-style-type: none"> <li>Bronze*</li> <li>Filled PTFE unitizing ring</li> <li>Fluoroelastomer O-rings standard</li> </ul> | -30°F (-34°C) to 400°F (204°C) | 12,000 fpm (60.9 m/s) | ± 0.025" (0.64mm)                      | ± 0.020" (0.51mm)                      | Ambient            |
| <b>Narrow Width</b><br>29609<br>   | <ul style="list-style-type: none"> <li>No internal metal-to-metal contact</li> <li>Meets NEMA MG 1-2003</li> <li>Meets IEEE 841-2001 test standards</li> <li>Fits in spaces as narrow as 0.325" (8.25mm)</li> </ul>            | <ul style="list-style-type: none"> <li>Bronze*</li> <li>Filled PTFE unitizing ring</li> <li>Fluoroelastomer O-rings standard</li> </ul> | -30°F (-34°C) to 400°F (204°C) | 12,000 fpm (60.9 m/s) | ± 0.015" (0.38mm)                      | ± 0.010" (0.25mm)                      | Ambient            |
| <b>Split Pillow Block</b><br>29616<br>   | <ul style="list-style-type: none"> <li>No internal metal-to-metal contact</li> <li>Meets NEMA MG 1-2003</li> <li>Surpasses IEEE 841-2001 test standards</li> <li>Standard and custom design for split pillow blocks</li> </ul> | <ul style="list-style-type: none"> <li>Bronze*</li> <li>Filled PTFE unitizing ring</li> <li>Fluoroelastomer O-rings standard</li> </ul> | -30°F (-34°C) to 400°F (204°C) | 12,000 fpm (60.9 m/s) | ± 0.025" (0.64mm)                      | ± 0.020" (0.51mm)                      | Ambient            |
| <b>Vertical</b><br>29620<br><br>29621<br> | <ul style="list-style-type: none"> <li>No internal metal-to-metal contact</li> <li>Meets NEMA MG 1-2003</li> <li>Surpasses IEEE 841-2001 test standards</li> <li>Vertical for top applications only</li> </ul>                 | <ul style="list-style-type: none"> <li>Bronze*</li> <li>Filled PTFE unitizing ring</li> <li>Fluoroelastomer O-rings standard</li> </ul> | -30°F (-34°C) to 400°F (204°C) | 12,000 fpm (60.9 m/s) | ± 0.025" (0.64mm)<br>± 0.015" (0.38mm) | ± 0.020" (0.51mm)<br>± 0.010" (0.25mm) | Ambient<br>Ambient |
| <b>Step Shaft</b><br>29697<br>   | <ul style="list-style-type: none"> <li>No internal metal-to-metal contact</li> <li>Meets NEMA MG 1-2003</li> <li>Surpasses IEEE 841-2001 test standards</li> <li>Custom designed for individual application</li> </ul>         | <ul style="list-style-type: none"> <li>Bronze*</li> <li>Filled PTFE unitizing ring</li> <li>Fluoroelastomer O-rings standard</li> </ul> | -30°F (-34°C) to 400°F (204°C) | 12,000 fpm (60.9 m/s) | ± 0.025" (0.64mm)                      | ± 0.020" (0.51mm)                      | Ambient            |

\* Other materials available. Please consult KLOZURE Dynamic Seals.

Special designs available upon request.

ISO-GARD<sup>®</sup> Bearing Isolator

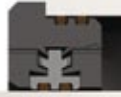


| ISO-GARD <sup>®</sup>   | Features  | Material   | Temperature                    | Surface Speed        | Axial Motion      | Misalignment & Runout | Pressure             |
|---|---|--|--------------------------------|----------------------|-------------------|-----------------------|----------------------|
| <b>Standard Design</b><br>29502<br>      | <ul style="list-style-type: none"> <li>Excellent chemical resistance</li> <li>Meets NEMA MG 1-2003</li> <li>Meets IEEE 841-2001 test standards</li> </ul>   | <ul style="list-style-type: none"> <li>FDA-compliant, blue glass-filled PTFE*</li> <li>Fluoroelastomer O-rings standard</li> </ul> | -40°F (-40°C) to 400°F (204°C) | 4,500 fpm (22.9 m/s) | ± 0.015" (0.38mm) | ± 0.020" (0.51mm)     | Ambient              |
| <b>Small Cross Section</b><br>29507<br>  | <ul style="list-style-type: none"> <li>Excellent chemical resistance</li> <li>Meets NEMA MG 1-2003</li> <li>Meets IEEE 841-2001 test standards</li> <li>Fits in c/s as small as 0.188" (4.76mm)</li> </ul>                | <ul style="list-style-type: none"> <li>FDA-compliant, blue glass-filled PTFE*</li> <li>Fluoroelastomer O-rings standard</li> </ul> | -40°F (-40°C) to 400°F (204°C) | 4,500 fpm (22.9 m/s) | ± 0.015" (0.38mm) | ± 0.020" (0.25mm)     | Ambient              |
| <b>Flangeless</b><br>29519<br>          | <ul style="list-style-type: none"> <li>Excellent chemical resistance</li> <li>Meets NEMA MG 1-2003</li> <li>Meets IEEE 841-2001 test standards</li> <li>Does not extend past face of housing</li> </ul>                   | <ul style="list-style-type: none"> <li>FDA-compliant, blue glass-filled PTFE*</li> <li>Fluoroelastomer O-rings standard</li> </ul> | -40°F (-40°C) to 400°F (204°C) | 4,500 fpm (22.9 m/s) | ± 0.015" (0.38mm) | ± 0.020" (0.25mm)     | Ambient              |
| <b>Split Pillow Block</b><br>29516<br> | <ul style="list-style-type: none"> <li>Excellent chemical resistance</li> <li>Meets NEMA MG 1-2003</li> <li>Meets IEEE 841-2001 test standards</li> <li>Standard and custom design for split pillow blocks</li> </ul>     | <ul style="list-style-type: none"> <li>FDA-compliant, blue glass-filled PTFE*</li> <li>Fluoroelastomer O-rings standard</li> </ul> | -40°F (-40°C) to 400°F (204°C) | 4,500 fpm (22.9 m/s) | ± 0.015" (0.38mm) | ± 0.020" (0.25mm)     | Ambient              |
| <b>Grease Purge</b><br>29518<br>       | <ul style="list-style-type: none"> <li>Excellent chemical resistance</li> <li>Meets NEMA MG 1-2003</li> <li>Meets IEEE 841-2001 test standards</li> <li>Allows for degreasing without disassembly of equipment</li> </ul> | <ul style="list-style-type: none"> <li>FDA-compliant, blue glass-filled PTFE*</li> <li>Fluoroelastomer O-rings standard</li> </ul> | -40°F (-40°C) to 400°F (204°C) | 4,500 fpm (22.9 m/s) | ± 0.015" (0.38mm) | ± 0.020" (0.25mm)     | 5 psi max. (0.3 bar) |
| <b>Vertical</b><br>29520<br>           | <ul style="list-style-type: none"> <li>Excellent chemical resistance</li> <li>Meets NEMA MG 1-2003</li> <li>Meets IEEE 841-2001 test standards</li> </ul>   | <ul style="list-style-type: none"> <li>FDA-compliant, blue glass-filled PTFE*</li> <li>Fluoroelastomer O-rings standard</li> </ul> | -40°F (-40°C) to 400°F (204°C) | 4,500 fpm (22.9 m/s) | ± 0.015" (0.38mm) | ± 0.020" (0.25mm)     | Ambient              |
| 29521<br>                              | <ul style="list-style-type: none"> <li>Vertical for top applications only</li> </ul>  | <ul style="list-style-type: none"> <li>FDA-compliant, blue glass-filled PTFE*</li> <li>Fluoroelastomer O-rings standard</li> </ul> | -40°F (-40°C) to 400°F (204°C) | 4,500 fpm (22.9 m/s) | ± 0.015" (0.38mm) | ± 0.020" (0.25mm)     | Ambient              |
| <b>Step Shaft</b><br>29597<br>         | <ul style="list-style-type: none"> <li>Excellent chemical resistance</li> <li>Meets NEMA MG 1-2003</li> <li>Meets IEEE 841-2001 test standards</li> <li>Custom designed for individual application</li> </ul>             | <ul style="list-style-type: none"> <li>FDA-compliant, blue glass-filled PTFE*</li> <li>Fluoroelastomer O-rings standard</li> </ul> | -40°F (-40°C) to 400°F (204°C) | 4,500 fpm (22.9 m/s) | ± 0.015" (0.38mm) | ± 0.020" (0.25mm)     | Ambient              |

\* Other materials available. Please consult KLOZURE Dynamic Seals.

Special designs available upon request.

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# EQUALIZER® Bearing Isolator

| EQUALIZER®   | Features   | Material  | Temperature                    | Surface Speed        | Axial Motion      | Misalignment & Runout | Pressure |
|--|--|---|--------------------------------|----------------------|-------------------|-----------------------|----------|
| <b>Standard Design</b><br>24802<br>     | <ul style="list-style-type: none"> <li>Multi-position capability</li> <li>Unique pumping/fanning action</li> <li>Excellent chemical resistance</li> </ul>  | <ul style="list-style-type: none"> <li>Graphite-filled PTFE*</li> <li>Fluoroelastomer O-rings standard</li> </ul> | -40°F (-40°C) to 400°F (204°C) | 4,500 fpm (22.9 m/s) | ± 0.015" (0.38mm) | ± 0.015" (0.38mm)     | Ambient  |
| <b>Small Cross Section</b><br>24807<br> | <ul style="list-style-type: none"> <li>Multi-position capability</li> <li>Unique pumping/fanning action</li> <li>Excellent chemical resistance</li> <li>Fits in c/s as small as 0.188" (4.76mm)</li> </ul> | <ul style="list-style-type: none"> <li>Graphite-filled PTFE*</li> <li>Fluoroelastomer O-rings standard</li> </ul> | -40°F (-40°C) to 400°F (204°C) | 4,500 fpm (22.9 m/s) | ± 0.015" (0.38mm) | ± 0.015" (0.38mm)     | Ambient  |
| <b>Flangeless</b><br>24801<br>          | <ul style="list-style-type: none"> <li>Multi-position capability</li> <li>Unique pumping/fanning action</li> <li>Excellent chemical resistance</li> <li>Does not extend past face of housing</li> </ul>    | <ul style="list-style-type: none"> <li>Graphite-filled PTFE*</li> <li>Fluoroelastomer O-rings standard</li> </ul> | -40°F (-40°C) to 400°F (204°C) | 4,500 fpm (22.9 m/s) | ± 0.015" (0.38mm) | ± 0.015" (0.38mm)     | Ambient  |

\* Other materials available. Please consult KLOZURE Dynamic Seals. Special designs available upon request.

A U T H O R I Z E D D I S T R I B U T O R

**WARNING:**

Properties/applications shown throughout this brochure are typical. Your specific application should not be undertaken without independent study and evaluation for suitability. For specific application recommendations consult Garlock. Failure to select the proper sealing products could result in property damage and/or serious personal injury. Performance data published in this brochure has been developed from field testing, customer field reports and/or in-house testing.

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ISO 9001:2000  
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**KLOZURE® Dynamic Seals**

A Division of Garlock Sealing Technologies  
 1666 Division Street  
 Palmyra, New York 14522 USA  
 1.315.597.4811  
 Fax: 1.315.597.3140  
 Toll Free: 1.866.KLOZURE (1.866.556.9873)  
 Toll Free Fax: 1.866.OILSEAL (1.866.645.7325)

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**Other Garlock brand facilities are located in:**

|                                |                 |                      |
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| <b>Sydney, Australia</b>       | 61-2-9793-2511  | Fax: 61-2-9793-2544  |
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PRINTED IN U.S.A.

KLZ 2:74 GPS-REV-A 2/05



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