

Bearing Isolator Family

Garlock KLOZURE®

The best alternative to Radial Lip Seals



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Garlock KLOZURE® Bearing Isolators

COMMON INDUSTRY CHALLENGES

- » **Premature bearing damage** – Bearing damage shortens Mean Time Between Failure (MTBF). Traditional lip seals cannot offer the performance and service life that is required to protect bearings.
- » **Lubrication, contamination and leakage** – Moisture, dust and dirt are just a few examples of contaminants that could enter the bearing housing. Contamination causes a number of issues such as seal degradation, which leads to leakage that poses a safety hazard to employees and harm to the environment.
- » **Different lubrication system** – Lubrication systems have evolved; splash, submerged, force feed, oil mist, air-oil and etc. Each has unique seal requirements.
- » **Costly shaft repair** – Shaft grooving from lip seals is costly to repair, and increases Mean Time to Repair (MTTR).
- » **Installation issues** – Lip seals are unidirectional seals. Training is required for proper installation as well as seal and material selection.

FEATURES

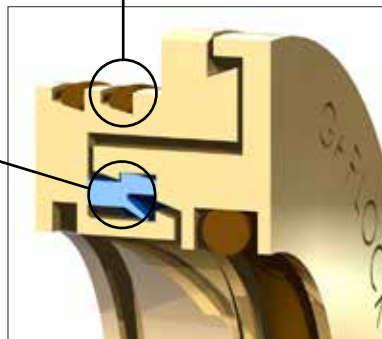
- » Labyrinth technology - Non-contact seals with no wear components for long service life and reduced drag on shaft, reducing power consumption
- » Unitized design – Bidirectional sealing designed to both exclude contaminants and retain lubrication
- » Fluoroelastomer o-ring fit – Allows easy installation without an arbor press or other tools, while providing a static secondary seal that does not score the shaft
- » Metallic and non-metallic design – different material for compliance with industry standards. API-610, IEEE841, NEMA MG-1, MSHA
- » Wide variety of sizes, configurations and customizable – Machined part with no tooling requirement for custom fit

TYPICAL APPLICATIONS

- » Pump bearing frames
- » Electric motors
- » Gear boxes
- » Split pillow block bearings
- » Fans
- » Turbines (steam)

GARLOCK PATENTED UNITIZING RING

The patented unitizing ring is a machined component with tight tolerance to maintain a labyrinth; eliminating internal metal-to-metal contact that generates metal shavings that could damage the bearing.



GARLOCK PATENTED CAM-LOCK DESIGN

The patented Cam-Lock design provides superior retaining force compared to standard bearing isolator designs. This design also allows easy installation by hand, without the need for an arbor press or other tools.

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We offer a complete line of high-performance bearing isolators specifically designed and engineered to give you the maximum performance on your rotating equipment.

METALLIC	GUARDIAN® 	<p>Key Benefits: Multi-purpose general service seal, designed to reduce downtime from equipment failure. Bi-directional sealing provides both ingress and egress protection</p> <p>Target Application: Ancillary equipment in dirty, dusty and wet environments. Electric-motors, pumps, gearboxes and pillow-blocks</p>	<ul style="list-style-type: none"> » Size ranges from 0.875" (22.2mm) to 23.250" (590.6mm) » Temperature limit -22°F(-30°C) to 400°F(204°C) » Speeds up to 12,000 fpm (60.9m/s), except bore >11.5" speed rated to 4500fpm » Meets NEMA MG-1 » Surpasses IEEE 841 test standard » Conforms to API 610
	MICRO-TEC® II 	<p>Key Benefits: Ability to filter dust and small particulates from entering the bearing chamber by adding a microcellular foam into the labyrinth pathway</p> <p>Target Application: Application in/near a heavy airborne contaminant area. Ancillary equipment in mining industry with dusty environment or bakeries with air borne raw material</p>	<ul style="list-style-type: none"> » Size ranges from 0.875" (22.2mm) to 23.250" (590.6mm) » Temperature limit -22°F(-30°C) to 400°F(204°C) » Speeds up to 4,500 fpm (22.9m/s) » Meets NEMA MG-1 » Surpasses IEEE 841 test standard » Conforms to API 610
	SGi® 	<p>Key Benefits: Integrated AEGIS® Shaft Grounding Ring to divert stray shaft current on electric motor driven by VFD's. AEGIS® Shaft Grounding Ring provides continuous 360° constant connection to the shaft</p> <p>Target Application: Electric motor driven by VFD (Variable Frequency Drive) that could introduce electric discharge into the bearing</p>	<ul style="list-style-type: none"> » Size ranges from 0.875" (22.2mm) to 6" (152.4mm) » Temperature limit -22°F(-30°C) to 400°F(204°C) » Speeds up to 12,000 fpm (60.9m/s)
COMPOSITE	ISO-GARD® 	<p>Key Benefits: Glass filled PTFE construction provides great chemical compatibility.</p> <p>Target Application: Rotating equipment with chemical wash-down. Example, food and beverage industry</p>	<ul style="list-style-type: none"> » Size ranges from 0.875" (22.2mm) to 11" (279.4mm) » Temperature limit -22°F(-30°C) to 400°F(204°C) » Speeds up to 4,500 fpm (22.9m/s) » Meets NEMA MG-1 » Surpasses IEEE 841 test standard » FDA compliant PTFE

* Specification is based on standard Flanged design

CAPABILITY, SERVICE & SUPPORT

Same day and 24hours Turnaround Service Available

We support our customers' needs for emergency service by offering same day* or next day* service on select bearing isolators.

Plant and Mill Surveys

Understanding how to gain greater productivity while lowering overall costs is a KLOZURE® specialization. On-going assessments are also available to determine the best sealing strategy for each unique plant/facility.

Customer Training

We partner with our customers to be sure that their on-site knowledge is as comprehensive as possible. Training sessions are available on all key KLOZURE® products, and specialized or custom training sessions can be implemented on an as-needed basis.

Applications Support

Garlock application engineers are available to ensure customer requirements are translated into the appropriate KLOZURE® product recommendations, maximizing service life.

Seals & Application Failure Analysis

Forensic analysis of seal failure is critical to our customers. This service is available upon request.

Engineering Expertise

KLOZURE® innovation extends to the customer's facility with our custom engineering capability. We have successfully designed custom solutions across a broad range of industries and applications to meet our customer's toughest challenges.

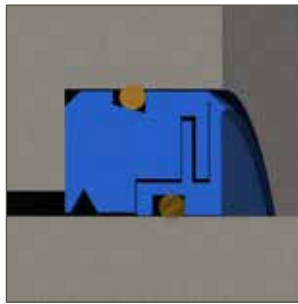
CONFIGURATIONS

Garlock KLOZURE® bearing isolators are offered in various configuration for a perfect fit to your equipment

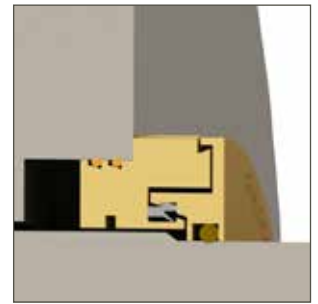
- » Flanged
- » Flangeless
- » Split
- » Surface Mounted
- » Flange Mounted (Bolt-on)
- » Narrow Width
- » Pillow Block (replacing LER)
- » Grease Purge
- » Vertical Mount
- » Step Shaft
- » Custom/Special design



FLANGED



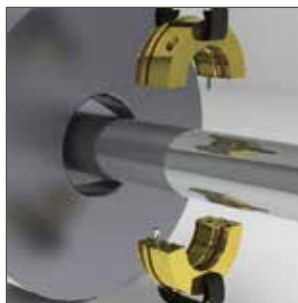
FLANGELESS



STEP-SHAFT



SURFACE MOUNT



SPLIT



PILLOW BLOCK

* Order must be placed by 11am EST for same day turnaround and 4pm EST for 24 hour turnaround. Max. of 5 pc with OD of 6" or below. Limited to Flange (29602), Flangeless (29619), Narrow Width (29609), Small cross-section (29607) configurations only.

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GARLOCK

an *EnPro* Industries family of companies

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