



Process Solutions



KML Poly-Guard IP69 Sealing System



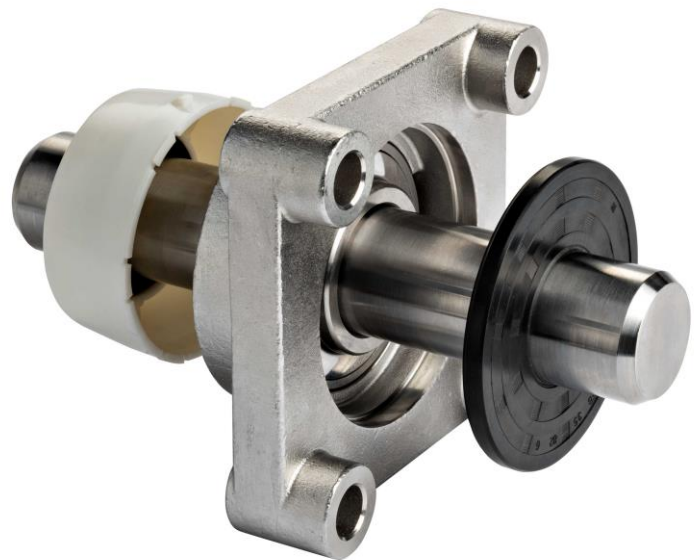
The System is the Solution!

***KML Poly-Guard Sealing System* performance is unmatched by previous designs**



- ✓ Standard front caps are fully enclosed
- ✓ Open front caps are available for through shaft applications
- ✓ Open caps fit both inch and metric applications with correct diameter shaft seals
- ✓ Caps are compression fit with locking tabs to withstand high pressure washdown without dislodging
- ✓ Cap seals for through shaft feature correct double-lip TC type seals

- ✓ Rear seals are flush-press-fit into a counterbore in the rear face.
- ✓ Rear seals feature TC double lip design with garter spring shaft compression
- ✓ Bearing cavity and installation slot are completely sealed eliminating harborage areas
- ✓ Wide inner ring bearing inserts are utilized for optimum shaft engagement while being hermetically sealed within the mounting cavity
- ✓ Stand-out housing mount allows cleaning around the housing



***KML Poly-Guard Sealing System* provides the next level of sanitary enclosure in high moisture bearing applications. This exciting next generation design provides outstanding protection that will increase bearing life expectancy.**

What??? The **KML Poly-Guard Sealing System** meets **IP69K specifications?**

Why IP69K? The IP69K rating is the highest water ingress protection available! It is normally used to certify electrical enclosures, motors and gearboxes in washdown environments.

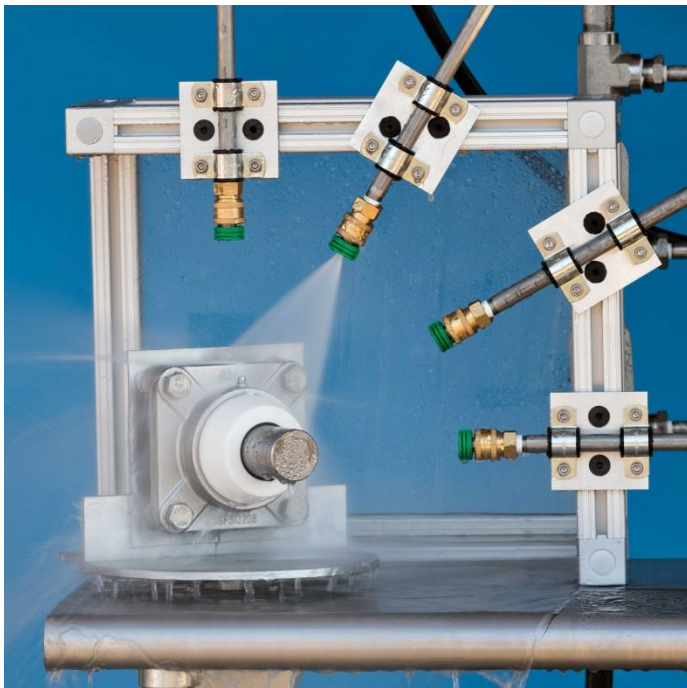
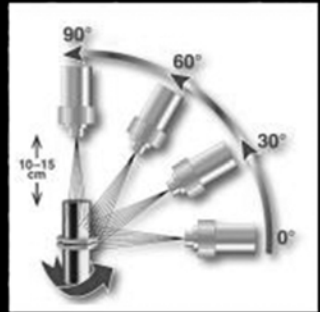
What is IP69K?

The IP69K rating provides protection against the ingress of dust and high temperature, high pressure water; thereby, making products with this certification ideal for use in conditions where equipment must be cleaned and sanitized.

In industries such as food processing, where hygienic design and sanitizing are paramount, equipment must be able to withstand rigorous high pressure, high temperature washdown procedures.

IP69K Test Measures

The IP69K test is designed to insure that the device is able to withstand high-pressure and steam cleaning: The test device sits on a turntable that rotates once every 12 seconds (5 rpm) while a nozzle mounted 10 - 15 cm away sprays the device with water heated to 80°C (176°F) and pressurized to 80 - 100 bar with a flow rate of 14 - 16 Liters per min. The test is run with the nozzle at angles of 0° (horizontal), 30°, 60° and 90° (vertical) for 30 seconds each.



The **KML** IP69K Test Stand Parameters

- 1,500 psi nozzle pressure
- Four application wands at IP69K specified angular locations
- Product located 10-15cm from the tip of the nozzle
- 360° product table rotation @ 5 RPM during exposure
- 30 seconds exposure at each nozzle location constitutes a complete test cycle
- Product to be fitted with closed front cap and rear seal with shaft installed for a complete test cycle
- Product to be fitted with an open front cap and rear seal with shaft installed for a complete test cycle

This is the answer both OEMs and Consumer Packaged Goods Companies (CPGs) need in this fast-paced, post *Food Safety and Modernization Act (FSMA)* environment that requires forward-looking solutions. The **KML** Poly-Guard Sealing System encapsulates the bearing protecting it from the high velocity chemical washdown solutions. This helps prevent corrosion of the critical bearing surfaces and also reduces the chemical damage and embrittlement to critical sealing surfaces.



Our *Rapid Advanced Product Internal Development System (RAPIDS)* allowed us to marry the revolutionary **KML Stand-Out Housing** design with the ground breaking **Poly-Guard IP69 Seal System** to produce a benchmark product that meets the needs of Food Equipment Hygenic Design and Clean-in-Place (CIP) criteria.

The result. »» The **KML Poly-Guard Sealing System!**



Offering 40+ years of bearing development and fabrication expertise, **KML** Bearing USA is able to provide the best possible combination of Washdown Rated Corrosion Resistant Bearing Products. With substantial inventory-availability coupled with reliable supply chain logistics, all **KML** Food Service Application Products offer Tier One Features and Benefits at competitive prices. Not only do these **KML** Next Generation Features extend the service life of sanitary equipment, but **KML** Corrosion Resistant Products also provide cost reductions for OEM, MRO and end-user alike.

KML Poly-Guard IP69 Sealing System – Tested tough!



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