



## MLSF™ Bearings:

### Creating Long Life, Low Maintenance, and Minimal Downtime

#### PRODUCT OVERVIEW

Waukesha Bearings® provides uniquely engineered multi-lobe, semi-floating (MLSF) bearings that improve stability and ensure long life and maximum reliability compared to conventional floating ring bearings. Using proven technology, the MLSF bearing is designed to run at optimum temperatures with minimal vibrations, extending the life of the equipment and surrounding parts.

#### BENEFITS

##### Long Life & Low Maintenance

MLSF bearings minimize vibrations, promoting longer lasting equipment and lessening the likelihood of early failure.

The first MLSF bearing has been in the field for over 30,000 hours of operation and counting, surpassing a competitive bearing in the same application lasting only 500 hours. The MLSF bearing meets industry demands for increased longevity and MTBR (mean time between repair).

##### Minimal Downtime

A failed bearing can lead to equipment failure or downtime for a replacement bearing. A bearing system operating at an optimized temperature - cool enough to prevent coking yet hot enough to maintain optimum viscosity - solves the problem of failure, minimizing both downtime and power loss.

##### Reduced Overall System Emissions

With industry demands for reduced emissions (greenhouse gases), the MLSF bearing helps provide the solution. The MLSF design improves the overall system efficiency and leads to reduced emissions.

#### PERFORMANCE IS WHAT COUNTS

Waukesha Bearings continually works toward optimized bearing designs to solve challenging applications and engineer proven results. Whether an application requires reduced temperature, minimal power loss, elimination of coking or maximized efficiency, we provide proven results.

Waukesha Bearings offers complete bearing analysis for radial and thrust bearings and squeeze film dampers, providing rotordynamic coefficients, temperature predictions, oil flow requirements, and power loss estimations. The result is a more reliable bearing that produces tens of thousands of hours of continuous service along with global customer support.

#### FACTS AT A GLANCE

##### Sizes

- IDs as small as 0.5"
- Bearing L/Ds as needed
- Single bearing or cartridge

##### Load Capacity

- Static unit load as small as 10 psi (.07 MPa)
- Dynamic unit load can exceed 700 psi (4.8 MPa)

##### Materials Used

- Bronze grades available including lead-free option

##### Temperature Ranges

- Up to 300°F (149°C)
- Higher temperature available

##### Lubricant Options

- Multi-viscosity oils

##### Ideal Solution For

- Smaller, high speed turbomachinery
- Turbochargers in large diesel or natural gas engines



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