Bearing Gard™ bearing isolator
with electrical grounding

Bearing Gard isolators with AEGIS® grounding ring technology provide superior reliability and extended life for electric motors using Variable Frequency Drives.

Complete motor protection

The growing population of Variable Frequency Drives (VFDs) as motor controllers has revealed electrical grounding through the bearings to be a major cause of premature motor failure. The Bearing Gard with electrical grounding is specifically designed to prevent motor failure from electrical fluting and contamination ingress.

- Bearing Gard technology provides superior static and dynamic protection against contamination ingress
- AEGIS® bearing protection ring utilizes Electron Transport Technology™ and conductive microfibers™ to provide the most reliable current diversion technology
- Prevents electrical discharge damage including fluting in bearings
- Protects against lubrication breakdown due to electrical arcing and contamination
- Standard design accommodates axial shaft movement of 0.63 mm (0.025 inch) TIR

VFD induced shaft voltage

without protection

with protection

Test 1

Test 2

0

10

20

30

40

Volts

Protected interface

Oversized contamination channel

Unique double drive ring design

Innovative static labyrinth shut-off

AEGIS® bearing protection ring

Conductive microfibers™

Experience In Motion
Working to keep industry running, Flowserve offers the Bearing Gard with electrical grounding in many stocked sizes. Custom sizes ship in 2 days or less.

General guidelines for electrical grounding designs:

- Shaft diameters 23-152 mm (0.875 - 6.000 inch)
- Housing bore: 20 - 50 mm (0.750 - 2.000 inch) over shaft diameter
- Lengths: Standard and Slimline (see cross section view)
- Maximum axial movement: 0.63 mm (0.025 inch) TIR
- Maximum radial runout: 0.13 mm (0.005 inch) TIR
- Shaft temperature: up to 190°C (375°F)
- Speed: up to 5000 rpm
- Rotor and Stator: Bronze
- O-rings: Fluoroelastomer
- Bearing lubrication: Grease or dry lubrication

Reliable discharge of voltage

VFD motor without protection discharges 20.8V through the bearings. VFD motor and Bearing Gard with electrical grounding provides a 98% drop in shaft voltage

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