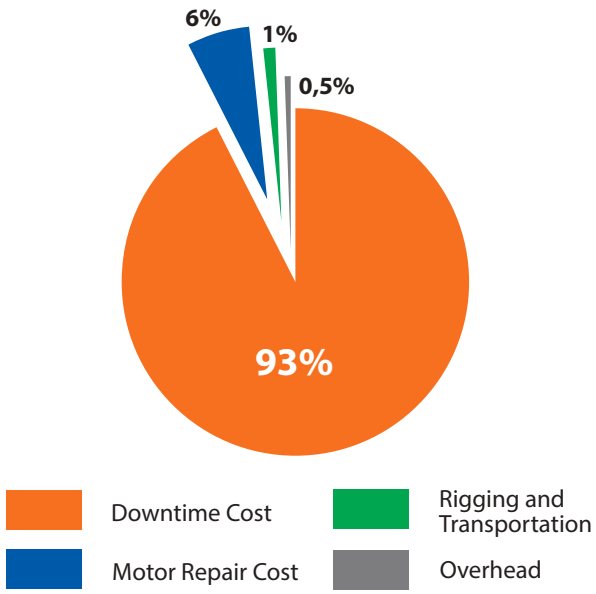
VFD-Driven Motors Are at Risk of Electrical Bearing Damage!

Motors operated by variable frequency drives (VFD) are vulnerable to VFD-induced shaft voltage and bearing currents that can cause premature bearing failure - often in as little as 3 months!
VFDs induce destructive shaft voltage that can discharge high frequency currents which can discharge through motor bearings, burning bearing grease and reducing its effectiveness. Through electrical discharge machining (EDM), these discharges can also cause pitting, frosting, and fluting damage to the motor's bearings and eventual bearing failure. The result is costly repairs, downtime, and lost production.



Protect Motor Bearings With AEGIS® Shaft Grounding Rings

By channeling harmful VFD-induced shaft current away from bearings and safely to ground, AEGIS® Shaft Grounding Rings protect motors from costly bearing damage.

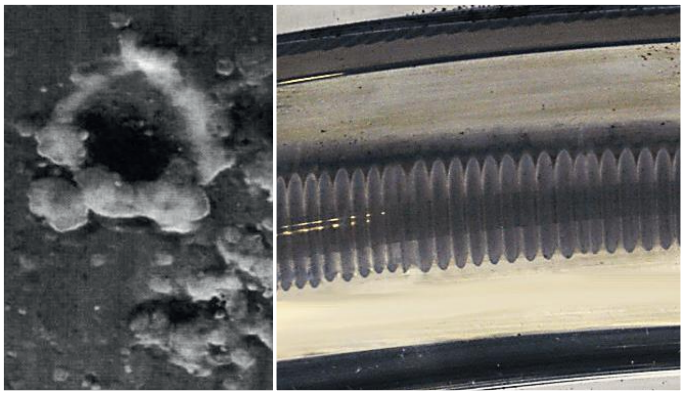
Bearing Protection Best Practices

The AEGIS® Motor Repair Handbook details best practices for protecting VFD-driven motors from electrical bearing damage and preventing costly repairs, downtime and lost production.

Learn about:
- Bearing currents and shaft voltages
- AEGIS® technology
- Shaft voltage testing
- Installation best practices

For detailed recommendations, refer to the AEGIS® Bearing Protection Handbook. An essential reference, the Handbook is available free at

www.est-aegis.com/handbook



Prevent EDM Pitting and Fluting Damage

AEGIS® Shaft Grounding Ring Options

Standard Mounting Clamps (-2)
Shaft diameters: 7.9 to 152.9mm
3 to 4 mounting clamps, M3 x .50 x 8mm cap screws and washers

Split Ring (-2A4)
Shaft diameter: 7.9 to 152.9mm
4 to 6 mounting clamps, M3 x .50 x 8mm cap screws and washers
Installs without decoupling motor

Bolt Through Mounting (-3MFH)
Shaft diameters: 7.9 to 152.9mm M3 x 12mm flat head screws
2 mounting holes up to shaft size 98.9mm
4 mounting holes for larger sizes

Conductive Epoxy Mounting (-0AW, -0A4W)
Shaft diameters: 7.9 to 152.9mm
Solid and Split Ring
Conductive Epoxy Included

Press Fit Mounting (-0A6)
Shaft diameters: 7.9 to 152.9mm
Clean dry press fit
Custom sizes available

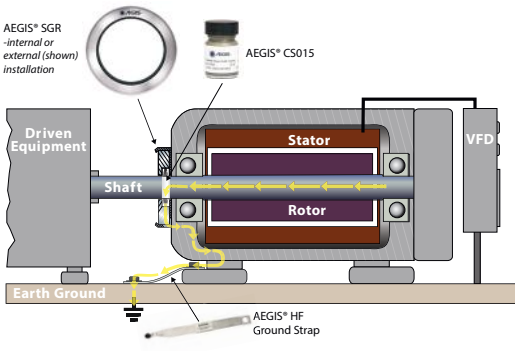
uKIT with Universal Mounting Bracket
Sized for NEMA and IEC frame motors
Solid and Split Ring
Can be mounted with hardware or conductive epoxy

AEGIS® PRO Series
AEGIS® PROSL, PROSLR, PROMAX, PROMR
AEGIS® WTG for Wind Turbine Generators

AEGIS® Shaft Voltage Tester™
100 MHz Digital Oscilloscope, 10:1 probe with SVP tip for measuring voltages on a rotating shaft
AEGIS® One-Touch™ instant image capture

Accessories
HFGS - AEGIS® High-Frequency Ground Strap
CS015 - AEGIS® Colloidal Silver Shaft Coating
EP2400 - AEGIS® Conductive Epoxy

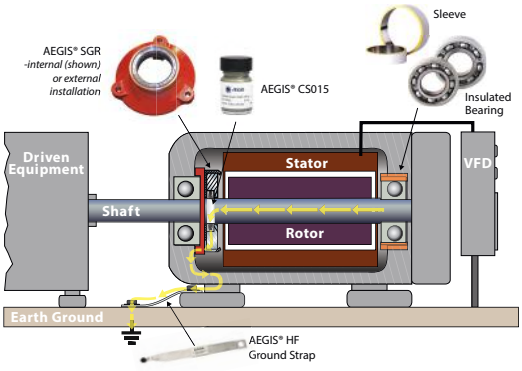
Motors up to and including 75 -100 kW



Install AEGIS® Shaft Grounding Ring – either internally or externally – on drive end or the non-drive end of motor.

Product recommendation: AEGIS® SGR

Motors above 75 -100 kW



- Drive End: Install AEGIS® Shaft Grounding Ring - Internally on the back of the bearing cap or externally on the motor end bracket.
- Non-Drive End: Isolate bearing housing with insulated sleeve or coating or use insulated ceramic or hybrid bearing to disrupt circulating currents.

Product recommendation:
Motors up to 375kW: AEGIS® SGR
Motors oVer 375kW: AEGIS® PRO Series

Electro Static Technology™
An ITW Company

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