



**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 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**

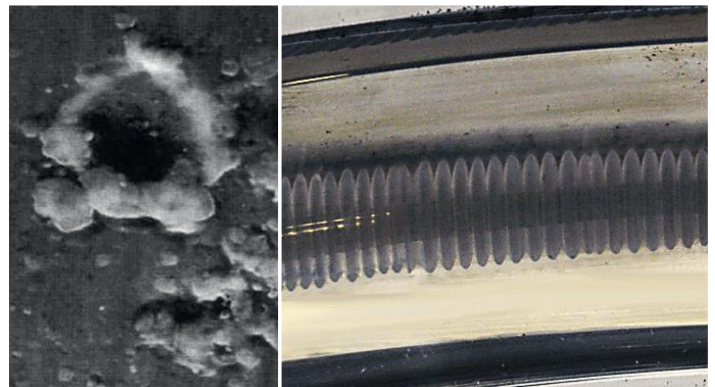
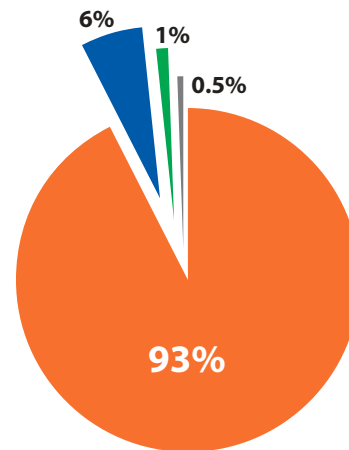
The AEGIS® Motor Repair Handbook details best practices for protecting VFD-driven motors from electrical bearing damage and preventing costly repairs, downtime and lost production.

Learn about:

- Bearing currents and shaft voltage
- 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](http://www.est-aegis.com/handbook)



Prevent EDM Pitting and Fluting Damage

## AEGIS® Shaft Grounding Ring Options



### Standard Mounting Clamps (-1)

Shaft diameters: 0.311" to 6.02"  
3 to 4 mounting clamps, 6-32 x 1/4" cap screws and washers



### Split Ring (-1A4)

Shaft diameter: 0.311" to 6.02"  
4 to 6 mounting clamps, 6-32 x 1/4" cap screws and washers  
Installs without decoupling motor



### Bolt Through Mounting (-3FH)

Shaft diameters: 0.311" to 6.02", 6-32 x 1/2" flat head screws  
2 mounting holes up to shaft size 3.395"  
4 mounting holes for larger sizes



### Conductive Epoxy Mounting (-0AW, -0A4W)

Shaft diameters: 0.311" to 6.02"  
Solid and Split Ring  
Conductive Epoxy Included



### Press Fit Mounting (-0A6)

Shaft diameters: 0.311" to 6.02"  
Clean dry 0.004" 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® Shaft Voltage Tester™

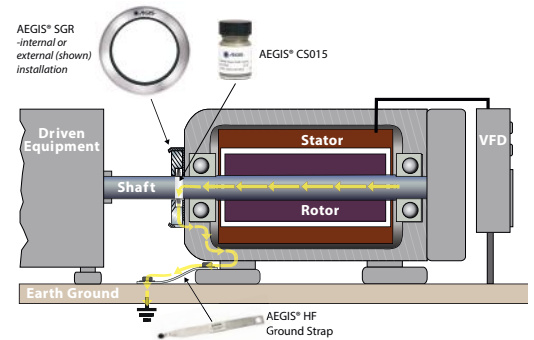
100 MHz Digital Oscilloscope, 10:1 probe with SVP tip for measuring voltages on a rotating shaft  
AEGIS® One-Touch™ instant image capture



### Accessories

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

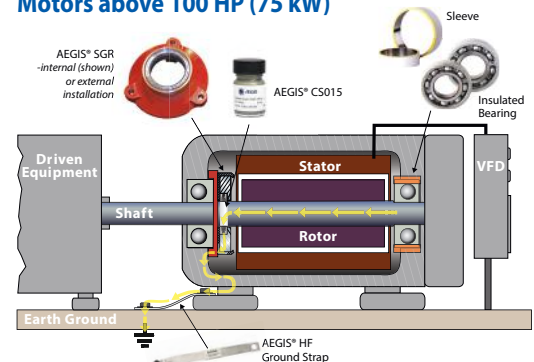
## Motors up to and including 100 HP (75 kW)



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 100 HP (75 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:

**LV Motors up to 500HP: AEGIS® SGR**

**LV Motors over 500HP: AEGIS® PRO Series**

**MV Motors: AEGIS® PRO Series**