VFD-Driven Motors Are at Risk of Electrical Bearing Damage!
Motors operated by variable frequency drives (VFD) are vulnerable to VFD-induced shaft voltages and bearing currents that can cause premature bearing failure - often in as little as 3 months! VFDs induce destructive shaft voltages and 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® Rings
By channeling harmful VFD-induced shaft voltages 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
Motors up to and including 100 HP (75 kW)

- **Low Voltage**
  - • Install AEGIS® Bearing Protection Ring – either internally or externally – on drive end or the non-drive end of motor. Use AEGIS® Colloidal Silver Shaft Coating (PN CS015) on motor shaft where fibers touch.
  
  **Product recommendation:** AEGIS® SGR

Motors Greater than 100 HP (75 kW)

- • Drive End: Install AEGIS® Bearing Protection Ring - Internally on the back of the bearing cap or externally on the motor end bracket. Use AEGIS® Colloidal Silver Shaft Coating on motor shaft
- • 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

**Accessories**

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

**Download the AEGIS® Best Practices Handbook:**
www.est-aegis.com/handbook