

AEGIS™ SGR Bearing Protection Ring Conductive Epoxy Mounting



PROBLEM:

VFD Induced Shaft Voltages Damage Bearings

The use of variable frequency drives (VFD) with AC motors induce electrical voltages on the motor shaft. Once they exceed the resistance of the bearing lubricant, these voltages discharge to ground (typically the motor housing), causing fusion craters in the bearings. Over time, these craters increase in size and number, resulting in frosting, pitting, fluting, and eventually bearing failure. This type of premature bearing failure can cost thousands of dollars in increased maintenance and lost production.

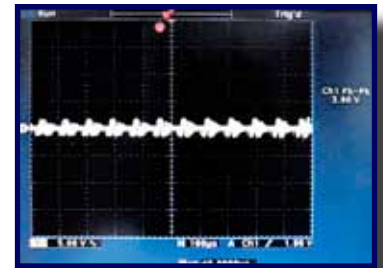


Shaft voltage reading
with no protection

SOLUTION:

AEGIS™ SGR - Electrical Bearing Damage Protection

The AEGIS™ SGR Conductive MicroFiber Bearing Protection Ring prevents electrical damage to motor bearings by safely channeling harmful currents to ground. Using proprietary Electron Transport Technology™, the conductive microfibers inside the AEGIS™ SGR provide the path of least resistance for damaging bearing currents, preventing electrical damage to motor bearings and dramatically extending motor life.



Shaft voltage reading
with AEGIS™ SGR

Learn more about
protecting motors
from VFD-induced
bearing damage at:
www.est-aegis.com

*Don't let
this happen
to your
bearings!*



AEGIS™ SGR Bearing Protection Ring with Conductive Epoxy Mounting

Installation Guide:

1. Shaft must be clean & free of any coatings, paint, or other nonconductive material.
2. Motor end bell must be clean & free of any coatings, paint, or other nonconductive material where AEGIS™ SGR will be mounted using conductive epoxy. This is the discharge path to ground therefore metal to metal contact is essential.
3. AEGIS™ SGR microfibers should not operate over keyway. If AEGIS™ SGR will operate over a keyway, fill keyway with a fast-curing, steel-filled epoxy (Devcon Stock # 10240) in the area of contact.
4. Mix conductive epoxy according to package directions. Apply a layer of epoxy to the back side of the AEGIS™ SGR.
5. Install AEGIS™ SGR so that the aluminum ring is concentric around the shaft. Conductive MicroFibers™ must maintain uniform contact with conductive metal surface of the shaft. Hold ring in place until epoxy is firmly holding the ring.
6. After installation, test for conductive path to ground using Ohm meter. One probe on metal frame of AEGIS™ SGR and one probe on motor frame. NOTE: Motor must be grounded to common earth ground according to applicable standards.
CAUTION: AEGIS™ SGR IS NOT A GROUND FAULT PROTECTION DEVICE.
7. In occasions where AEGIS™ SGR is exposed to excessive debris, additional protection of the fibers may be necessary. Call technical support at 207-998-5140 or email techsupport@est-aegis.com

The Longest Lasting Protection Available

AEGIS™ SGR is the world's most effective shaft grounding technology and it offers the longest lasting protection available.

- Eliminates the need to drill and tap into the end bell
- Proven in hundreds of thousands of applications
- Lasts for the service life of the motor
- No RPM limitations



End bell with cleaned surface



AEGIS™ SGR - Solid Ring



AEGIS™ SGR - Split Ring