

# Application Notes for AEGIS™ Bearing Protection Ring



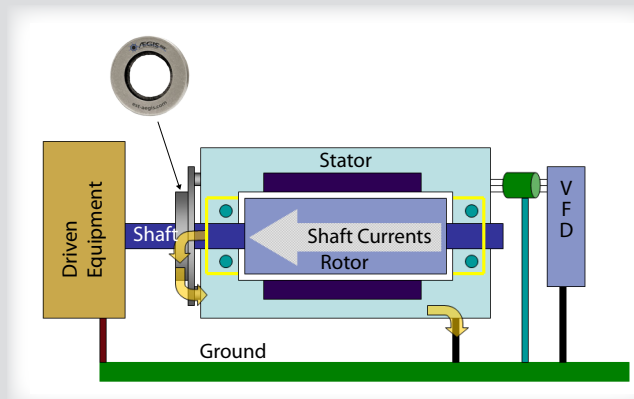
## General Notes for all applications:

- » Shaft must be clean and free of any coatings, paint, or other nonconductive material. The shaft must be clean to bare metal. Depending on the condition of the shaft, it may require using emery cloth or Scotch Brite. If the shaft is visibly clean, a non petroleum based solvent may be used to remove any residue. If possible, check the conductivity of the shaft using an ohms meter.
- » Ohms test: Place the positive and negative meter leads on the shaft at a place where the microfibers will contact the shaft. Each motor will have a different reading but in general you should have a maximum reading of 2 ohms. If the reading is higher, clean the shaft again and retest.
- » AEGIS™ SGR should not operate over a keyway. If AEGIS™ SGR will operate over a keyway, fill keyway with a fast-curing epoxy putty in the area of contact.
- » Install the AEGIS™ SGR so that the aluminum brush holder maintains an even clearance around the shaft. Conductive MicroFibers™ must be in contact with conductive metal surface of the shaft.
- » Do not use Loctite® or any other nonconductive material to secure the screws.
- » 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 with drive according to applicable standards.
- » Where AEGIS™ SGR is exposed to excessive debris, additional protection of the AEGIS™ SGR fibers may be necessary. Contact AEGIS Customer Service/Engineering for assistance with specific applications.
- » Colloidal Silver Shaft Coating is recommended for all applications (See page 5 in the AEGIS™ catalog). This is especially important where the motor's shaft may rust. It is essential to maintain a conductive path between the shaft surface and the Conductive Microfiber™ of the ring to ground.

## Motors up to 100 HP (75 kW)

For horizontally mounted motors with single row radial ball bearings on both ends of the motor:

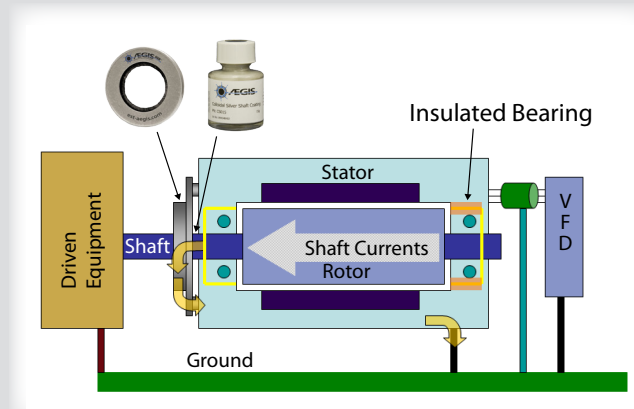
- Install one AEGIS™ SGR Bearing Protection Ring on either the drive end or the non-drive end of the motor.
- AEGIS™ SGR can be installed internally on the back of the bearing cap or externally on the motor end bracket.
- ★ Recommend Colloidal Silver Shaft Coating PN CS015



## Motors Greater than 100 HP (75 kW) up to 449T Frame Size

For horizontally mounted motors with single row radial ball bearings on both ends of the motor:

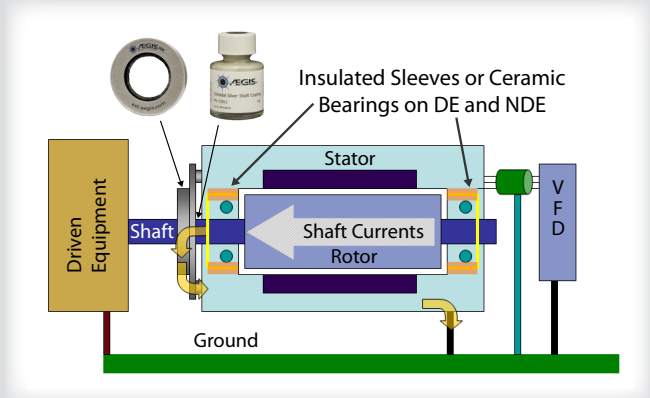
- Non-Drive end: Bearing housing must be insulated or use insulated ceramic or hybrid bearing to disrupt circulating currents
- Drive end: Install one AEGIS™ SGR Bearing Protection Ring
- AEGIS™ SGR can be installed internally on the back of the bearing cap or externally on the motor end bracket.
- ★ Recommend Colloidal Silver Shaft Coating PN CS015



## All Motors Where Both Bearings are Insulated in Low or Medium Voltage Applications:

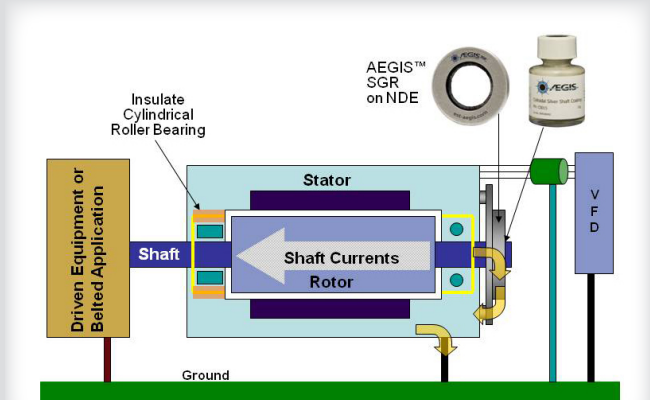
For horizontally mounted motors with single row radial ball bearings on both ends of the motor:

- Install one AEGIS™ SGR Bearing Protection Ring on either the drive end or the non-drive end of the motor to protect bearings in attached equipment (gearbox, pump, fan bearing and encoder, etc.).
- AEGIS™ SGR can be installed internally on the back of the bearing cap or externally on the motor end bracket.
- ★ Colloidal Silver Shaft Coating PN CS015 is required for this type of application.



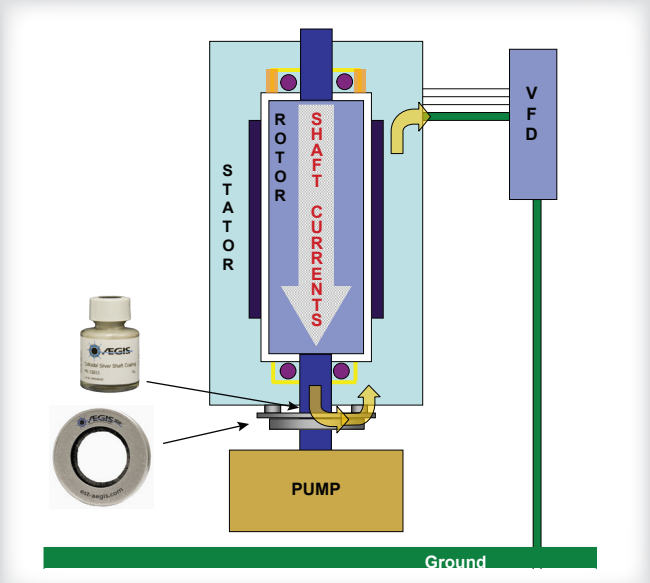
## All Horizontal Motors with Cylindrical Roller Bearings up to 449T Frame Size:

- Cylindrical Roller Bearing End (DE): Bearing housing should be insulated or use hybrid insulated bearing.
- Opposite End (NDE): Install one AEGIS™ SGR Bearing Protection Ring.
- AEGIS™ SGR can be installed internally on the back of the bearing cap or externally on the motor end bracket.
- ★ Colloidal Silver Shaft Coating PN CS015 is required for this type of application.



## Vertical Motors:

- Top Bearing (NDE): Bearing journal must be insulated or insulated ceramic or hybrid ceramic bearing installed
- Drive End (DE): Install one AEGIS™ SGR Bearing Protection Ring on drive end.
- AEGIS™ SGR can be installed internally on the back of the bearing cap or externally on the motor end bracket.
- ★ Colloidal Silver Shaft Coating PN CS015 is required for this type of application.



Purpose of Application Notes: Application notes are intended as general guidance to assist with proper application of AEGIS™ SGR Bearing Protection Ring to protect motor bearings. All statements and technical information contained in the application notes are rendered in good faith. User must assume responsibility to determine suitability of the product for its intended use.