

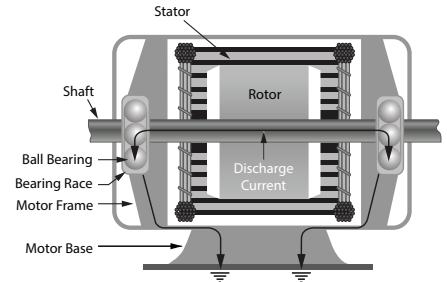
Helwig Carbon - The Bearing Protector™



The Need for Bearing Protection

The Bearing Protector™ is a shaft grounding assembly that diverts static and induced electrical currents in motor shafts away from the bearings. This protects the bearings from potential pitting and fluting which causes the bearings to fail.

Among the bearing protection options available, *Helwig's Bearing Protector* is the best choice. It provides years of service while providing a safe path to ground and minimizing stray currents passing through the bearings. And, unlike carbon fiber rings, the Helwig Bearing Protector keeps shaft voltage to a minimum.



Comparison of Shaft Grounding Technologies

Technology	Cost	Ease of Installation	Comments
Insulated Bearings	\$\$\$	Difficult	Motor designed to facilitate insulation, can still fail over time
Ceramic Bearings	\$\$\$\$	Difficult	Best done on new motor
Conductive Grease	\$	Simple	Conductive particles increase bearing wear
Metal Fiber Brushes	\$\$\$	Moderate to Simple	Can have very high wear rates Debris between fibers render useless Cannot carry significant current
Carbon Fiber Rings	\$\$\$	Moderate	Motor needs to be uncoupled to mount Need different sizes for each shaft size Very limited amp capacity Leaves some induced voltage in the shaft
Helwig Bearing Protector	\$\$	Moderate to Simple	Can mount without removing motor Covers wide range of shaft sizes Low to high current carrying capacity Different grade options to match conditions Will protect bearing due to lower contact resistance Many years of service from a single brush



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Helwig's Shaft Grounding Assembly protects against premature bearing failure, a major cause of motor downtime.

- Easy to install and maintain
- Stock kits fit most motors & various shaft sizes *(larger sizes and custom kits also available)*
- Works effectively in contaminated environments
- Various grade options available for custom applications
- 2 mounting options include super-strong velcro, or 2 and 4 mounting hole for drill and tap

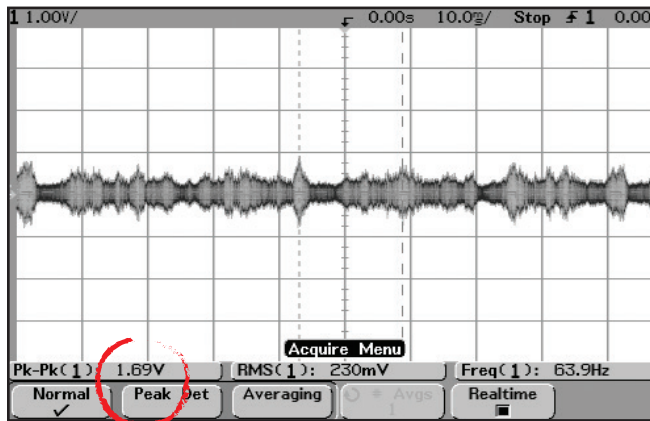
Fluting caused by induced currents through bearings



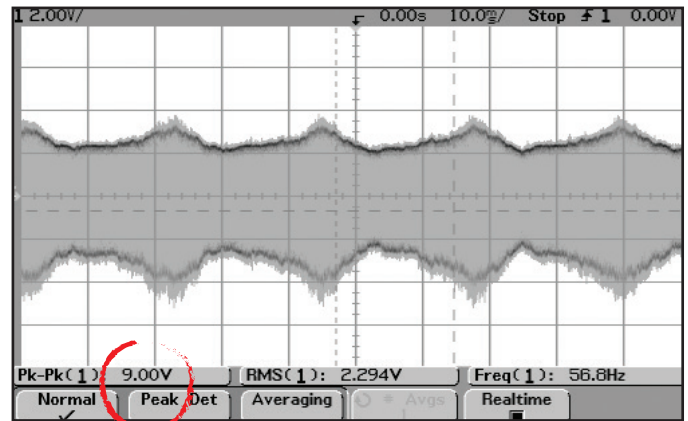
Minimize shaft voltage with Helwig's Bearing Protector

Following test validation, the graphs below show induced shaft voltage with Helwig Bearing Protector vs. Carbon Fiber Ring. Lower value equals better bearing protection. Peak-to-peak voltage for Helwig's kit is about 5 times lower than carbon fiber ring.

Shaft voltage with Helwig Bearing Protector



Shaft voltage with carbon fiber grounding ring



Comparison of Helwig Bearing Protector vs. Leading Competitor

	Helwig Bearing Protector	Leading Competitor
Excellent conductivity	YES	NO
Long-term effectiveness	YES	?
Ease of use	YES	NO
Low lifetime cost	YES	NO
Ease of replacement	YES	NO
Low Maintenance	YES	NO
Cost effectiveness	\$\$ One size fits all	\$\$\$\$ Many sizes needed

Call today to order The Bearing Protector™ Kit and extend the life of your motors! **800-962-4851**



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