


BEARING PROTECTION KITS™ FOR

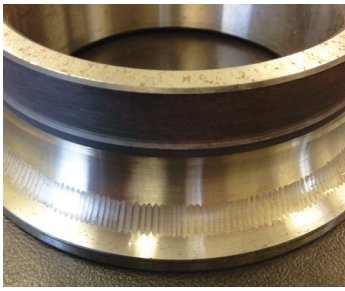
# TECO Westinghouse



## Bearing Protection Kits (BPK) provide:

- A proven solution to protect your motor bearings.
- Sealed and protected from outside elements and contamination.
- Brass body for industrial applications and severe duty motors.
- Most effective technology for minimizing shaft voltages & damaging currents.
- Very long life; brush life typically exceeds the warranty of the motor.
- Constant force spring for consistent low resistance contact.
- Easy to install externally or internally; adjustable height slotted mounting holes.
- UL approved. 
- Patented product.

Frame	BPK Kit Part #
140T	BPK-IM2-1101BA
140T	BPK-IM2-1102BA
180T	BPK-IM2-1103BA
213/215T	BPK-IM2-1104BA
444T, 445T, 447T, 449T	BPK-SB-1105BA
404T, 405T	BPK-SB-1106BA
364T, 404TS, 405TS	BPK-SB-1107BA
444TS, 445TS, 447TS, 449TS	BPK-SB-1108BA
324T, 324TS, 364TS	BPK-SB-1109BA
284T, 284TS, 286T, 286TS	BPK-SB-1110BA
254T, 254TS, 256T, 256TS	BPK-SB-1111BA



## Causes of Bearing Damage

AC and DC Motors with variable frequency drives (VFD) produce induced electrical currents on the motor shaft. This current seeks the path of least resistance to ground which is typically through the motor bearings. When current passes through the bearings electrical arcs take place leading to fluting, pitting, and bearing damage. The fluted or damaged bearing surface cause noise, vibration, and premature bearing failure. This can lead to costly downtime and lost revenue.

## Preventing Bearing Damage

Helwig Carbon uses proven silver graphite brush technology in a variety of bearing protection kits (BPK) for motor shaft grounding. Our kits effectively divert induced electrical currents away from the bearings, protecting them from damage.

## THE BPK-SB PROTECTS

- MOTORS WITH VFD**
- HVAC UNITS**
- PUMP MOTORS**
- FANS**
- AIR HANDLING**
- COMPRESSORS**
- ELEVATORS**
- DATA CENTERS**
- CHILLERS**
- CONVEYORS**
- REFRIGERATION**
- GENERATORS**
- DRILLING RIGS**
- PROPULSION SYSTEMS**
- CRANES**

## SHAFT GROUNDING TEST RESULTS

Performed on a 0.75 HP 230V Motor

### UNPROTECTED

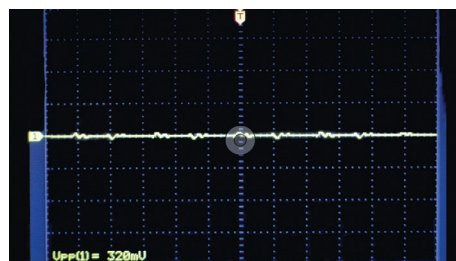


Discharges: 475 Peak-to-Peak Voltage 8V

ABOUT  
**35%**  
LESS

DISCHARGES

### PROTECTED BY TECO WESTINGHOUSE BPK



Discharges: 310 Peak-to-Peak Voltage <1V

ABOUT  
**96%**  
LESS

PEAK-TO-PEAK  
VOLTAGE



8900 West Tower Avenue | Milwaukee, WI 53224-2849  
Toll Free: (800) 962-4851 | Phone: (414) 354-2411 | Fax: (800) 365-3113  
Email: carboncrew@helwigcarbon.com

