

# Bearing Fluting Tools and Materials

## Checking for Magnetization:

One simple magnetometer is the **Mac** (-20,0,+20) device, from **Magnetic Analysis Corp**, Mt. Vernon, NY. 914-699-9450. You can purchase these from [www.lessemf.com](http://www.lessemf.com) – under their catalog number **W142-20**, cost is about \$40. You can also use a paper clip, which will hang from a magnetized structure with as little as 10 gauss.

## Ceramic “Hybrid” Bearing (Balls made of Ceramic):

SFK “Hybrid” MRC bearings

**313S-HYB#1** for 447/449 motors – replaces standard 6313/C3 bearing

**316S-HYB#1** for 5000/5800 motors – replaces standard 6316/C3 bearing

Note: These part numbers (313S-HYB#1) are setup in the **Baltimore Parts** system even though they do not conform to the XXX-XXXXX-XXX part number format.

## Shaft Grounding Brushes:

**SGR-63.0-1** for 447/449 motors

**SGR-78.9-1** for 5000/5800 motors

Order from -

Electro Static Technology (Aegis)

31 Winterbrook Road

Mechanic Falls, Maine 04256

866-738-1857

[www.est-aegis.com](http://www.est-aegis.com)

Our sales rep is Adam Willwerth, 207-998-5140

## Tools Needed to Replace Motor Bearings (for 405 through 5800 series frames – up to 2000 HP)

All part numbers are **Grainger** catalog numbers:

**1AC05** Puller, 20 Ton, 3 Jaw                      Cost \$246.

**4TDK2** Bessey Cone Heater                      Cost \$429.

**5T360** Thermal Mittens, 800 degree              Cost \$38.

You will also need to have some **Threaded Rods**, 12” in length, as follows:

400 series motors use 9/16-12UNC threads to remove/mount the end brackets

440 and 5000 series motors use 5/8-11UNC threads to remove/mount the end brackets

5800 series motors use 3/4-10UNC threads to remove/mount the end brackets

400-449 series motor inner bearing caps use a 5/16-18UNC thread

5000/5800 series inner bearing caps use a 3/8-16UNC thread