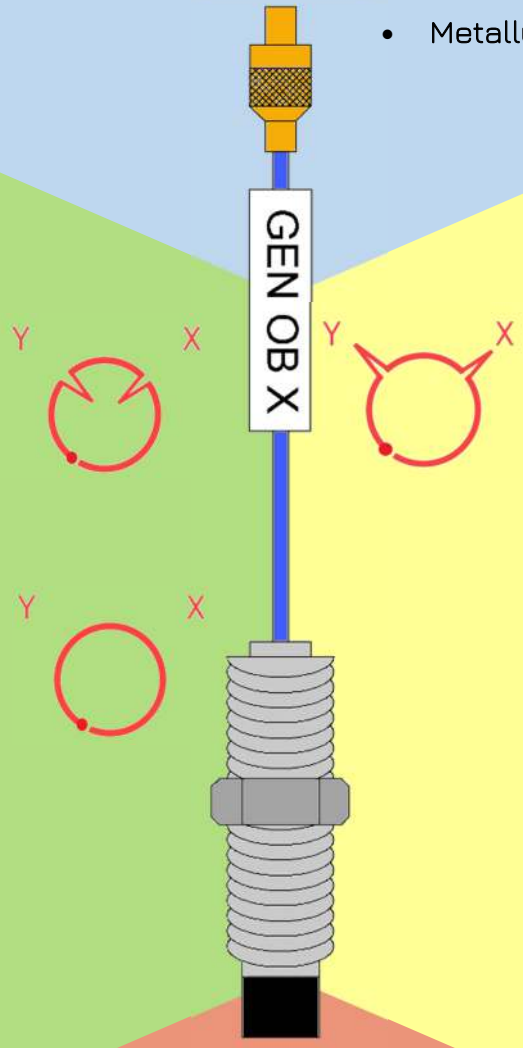
Proximity Probe Glitch Guide

Mechanical

- Surface Damage
- Bowing/Nonconcentric

Electrical

- Residual Magnetism
- Residual Stress
- Grain Structure
- Material Overlays
- Metallurgical Composition



Surface Damage

Typically due to scratches, dents, or burrs in the probe viewing area. Scratches are most common and present as two divots into the orbit plot.

Bowing/ Nonconcentric

A shaft that is bowed or a probe viewing area that is non concentric will result in a sinusoidal pattern that gives the orbit a circular appearance at low speeds.

Residual Magnetism

Typically due to one portion of the probe viewing area exhibiting a different magnetic field than the rest. Typical presentation is “ears” on the orbit plot.

Additional Causes of Electrical Runout

Residual stress, grain structure, material overlays, and metallurgical composition can all impact how an eddy current proximity probe interacts with the shaft surface potentially leading to runout. A jagged appearance of the orbit or peculiar frequencies present at low speeds can be indicative of these types of runout.

AVS Engineering
Vibration Solutions

WWW.AVSENGINEERING.NET