LION PRECISION

TechNote

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SEA Masterball Grounding Brush

Applicable Equipment:

SEA Systems Using Single or Dual Masterballs

Applications:

Spindle Error Analysis

Summary:

A method for reliably grounding masterballs.

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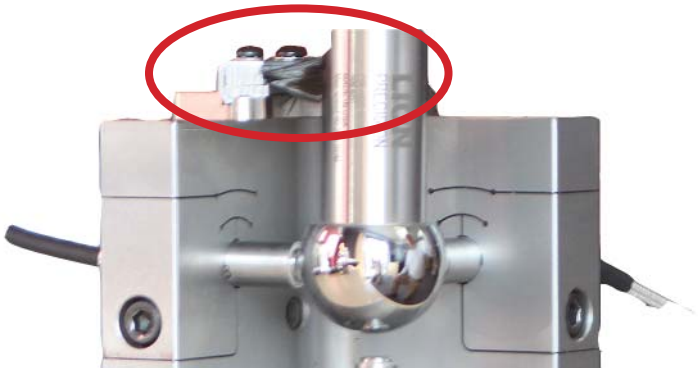
Masterball Target Grounding:

Peak performance is achieved with capacitive sensors when the target is reliably grounded. The rotor of a spindle may not be reliably connected to ground because of separation between the rotor and stator caused bearing grease or the nonconductive bearing technology such as ceramic or air.

To provide a reliable ground to a rotating shaft, the Lion Precision microfiber ground brush assembly (P017-4350) can be used. The brush is installed on the 3- or 5-probe nest such that conductive microfibers remain in contact with the rotating shaft while being measured.

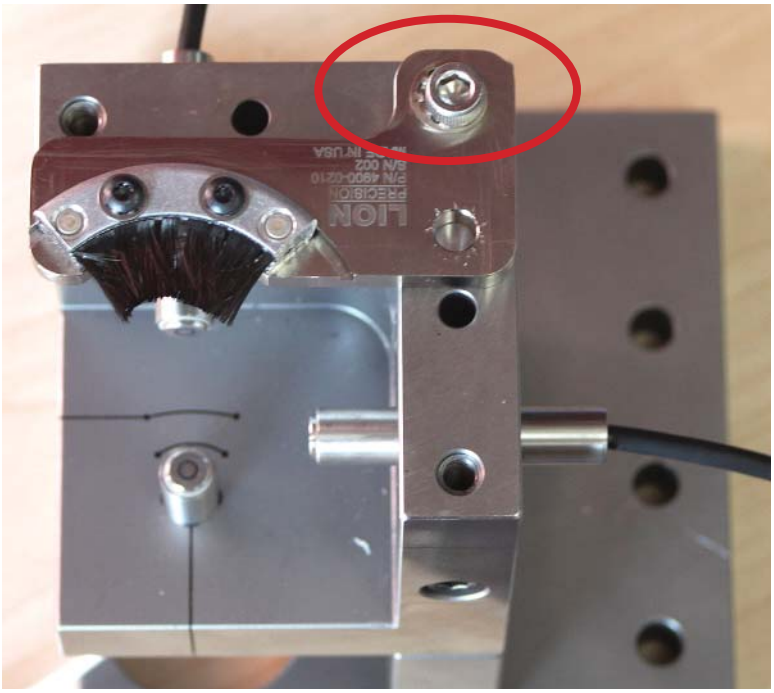
The brush is positioned to contact the masterball shaft as shown below.



It is recommended that the system be installed and positioned before the brush is installed. This will prevent any accidental contact between the masterball and the grounding brush frame which could damage the masterball's precision surface.

Installation is achieved with a single screw into existing threaded holes on the probe nests. Different mounting holes are provided for mounting on the 3- and 5-probe nests. See the following page for details.

3-Probe Nest:



5-Probe Nest: