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## What is a Baseline Worth?

Several identical motors were installed at a facility. Upon installation, the motors ran hot and didn't produce the expected horsepower and all of the motors behaved in the same manner. Instead of performing a Root Cause Analysis (RCA) as to why the motors weren't performing to specification, the facility proceeded to use the motors as is. Eventually, one of the motors failed and was sent in for repair. It was found that half of the windings (on all three phases) were blackened. The motor was repaired and returned to service only to fail again with the same failure. This time, the motor was sent to a different motor shop for repair. After some investigation, the external connections were found to be incorrect, resulting in only half of the stator windings being used. Situations such as this remind us all that it is important to perform both offline and online baseline testing when installing a motor. This situation could have been avoided if baseline data including running current, running speed, start-up time, running temperature, and winding resistance and inductance were available to compare to the motor manufacturer's specifications. So how much is a baseline worth? In this situation about two motor rewinds and countless hours of installation.

You are invited to submit an Electric Motor Testing Tip of your own and receive a free PdMA mug or hat if we publish it! Contact Lou at 813-621-6463 ext. 126 or [lou@pdma.com](mailto:lou@pdma.com).

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