



# Electric Motor Testing Tip of the Week

revolutionizing *electrical* reliability

**December 17, 2007**

## Resistive Imbalance in Multiple Lead Motors

A resistive imbalance is usually caused by a loose connection on the cabling or the final connection to the motor. These imbalances, however, may also be caused by the motor lead connections on multiple lead motors such as 9 and 12 leads. If these connections are loose, or in any way not correctly made, they can cause an imbalance that can be confused with an internal issue. A one quarter turn on a bolt connecting two leads can cause an imbalance of over 3%.

When performing MCE testing, the motor leads must be connected properly, the same way they would be connected for operation. Using the MCE test leads to hold together two or more leads is not enough to have a good connection and get reliable results.

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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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