



Electric Motor Testing Tip of the Week

revolutionizing *electrical* reliability

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Non-Symmetric Thermal Expansion of Rotors

Thermal imbalances exist in rotors and can be caused by starting or running conditions. Some imbalances are due to design or operation of the motor outside the design parameters. Some causes of imbalance are:

- Frequent starting
- Uneven heat transfer between rotor core and bars
- Rotor bowing due to thermal cycling
- Vibration from uneven fit between shaft and rotor
- Hot spots on the rotor
- Uneven circulating currents caused by broken bars

For more details and information on non-symmetric heating of rotors go to <http://www.pdma.com/RotorFaultZone.pdf>

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.

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