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Don't Forget Reliability

Given the sometimes frenzied movement in the effort to go green, maintenance management may overlook the fact that maintaining reliability can pay dividends towards efficiency while improving the bottom line. This brings us to the end of the Don't Forget Reliability six tip series which explored the impact of each of the six fault zones on motor efficiency.

Part Six – Air Gap

The gap between the rotor and stator assures efficiency when it is evenly distributed around 360 degrees of rotation. A non-symmetrical distribution will result in excessive vibration and eventual bearing failure or worse, a rotor/stator rub. Either of these faults increases the mechanical loading of the motor resulting in more power drawn to deliver the same load by the motor. More power in for the same energy out equals lower efficiency.

For more information on the effects of reliability on motor efficiency go to http://www.pdma.com/pdfs/Articles/WhitePapers/Motor_Efficiency_and_Fault_Zone_Analysis.pdf

To watch a short discussion on the Air Gap Zone go to http://www.pdma.com/webinars/Air_Gap_Fault_Zone/AirGap.html

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.