PdMA® CORPORATION A Leader in Electric Motor Testing

Tip Of The Week

January 15, 2018

Motor Reliability Commitment for 2018 - Part 2

Continuing with the January fresh start for a new year of commitments we will focus on motor efficiency best practices. The following are some considerations for best practice in optimizing your motor efficiency and overall power consumption:

- **Size Your Motor Correctly**. Your motor operates much more efficiently when it is running above 60% of rated horsepower. The efficiency drops significantly when running below 50%.
- **Reliability Before Efficiency.** No matter how efficient your motor is, if it is running in a reduced reliability state you risk a short life expectancy, which will eliminate any savings. Establish a predictive maintenance approach to test your electric motors on a routine basis.
- **Establish a Replacement Strategy.**
  - *Immediate Replacement* - If a motor offers a quick return through energy savings it should be considered for immediate replacement. Examples include older inefficient motors that run continuously. Especially oversized motors.
  - *After Failure Replacement* - Motors offering only a moderate payback period can be replaced with a high efficiency motor at the time of failure.
  - *No Replacement Necessary* - Motors already exhibiting acceptable efficiency with an extended payback period should not be included in the replacement plan. Especially motors that run only intermittently.

System Efficiency vs. Motor Efficiency. When evaluating electric motors for improved efficiency always look at the total system efficiency including the driven load for the best overall cost effective solution.

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. 166 or lou@pdma.com.