



A Leader in Electric Motor Testing

Tip Of The Week

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Location, Location, Location

When performing a Power Test with the EMAX, there are many parameters to consider. With proper loading, current imbalance is an ideal leading indicator of a system anomaly. However, current imbalance has been referred to as a burglar alarm because, like a burglar alarm, it is a broad indicator and doesn't often give you details about the exact source of the alarm. However, EMAX voltage readings can cut the possible sources in half giving you a much better idea of the severity of a current imbalance. If a high voltage imbalance along with the current imbalance is present, the fault is upstream toward the transformer. No voltage imbalance would indicate the source of the current imbalance is downstream toward the motor. Once you have determined the source is downstream you can use impedance imbalance to further isolate the fault to the power circuit or motor. An impedance imbalance equal or less than the current imbalance leans toward the power circuit like a high resistance connection. An impedance imbalance much higher than the current imbalance leans toward the stator windings as the source of the anomaly.

To see a case study on using current and test location as a troubleshooting tool visit our website at:
<http://www.pdma.com/webinars/PetroChem/PetroChem.mp4>

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.

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