

PDMA CORPORATION TRAINING INTRODUCTION TO MCEMAX® AC MOTORS

Course Length: 4 Days

Date(s) March 12-15

Location: 4110 US Hwy 61 St. Francisville, LA 70775

Cost per person: \$2,000 (lunch provided)



RSAW

RED STICK ARMATURE WORKS



Course Description

Upon completion of the course, you should be able to safely perform all AC MCE and EMAX tests and use the test results to evaluate the condition of a motor circuit.

The course is intended both for technicians who perform testing and analyst who evaluate the results.

Day 1

The course begins with a classroom lecture and discussion on offline (de-energized) Motor Circuit Evaluation (MCE) using the six Fault Zones. Throughout the day students will operate the tester to perform each of the MCE tests: AC Standard Test, Rotor Influence Check (RIC), Polarization Index, and Step Voltage Test. Students will perform a motor circuit analysis on the tested motors, using the collected MCE test results. Having one or more three-phase induction motors will be available in the classroom for training purposes.

Day 2

The students will participate in additional hands-on practice for MCE testing on de-energized equipment. The class will then continue with a classroom lecture and discussion on the use of the EMAX to perform AC motor Current Signature Analysis (CSA) and Power Analysis testing.

Day 3

The class will complete the lecture and discussion on EMAX testing. The students will then perform hands-on AC EMAX testing under the direct supervision of the instructor. They will then analyze the collected data to evaluate the condition of the tested motors. Additional MCE testing may also be performed depending on the students' request.

Day 4

The final day includes time for practical training and data interpretation with the instructor. At the end of the day there will be a detailed review of both MCE and EMAX AC motor testing and the Six Fault Zone approach to analyzing data collected by the MCEMAX.

Presented by:



To sign up please email: sales@rsaworks.com

Educational Objectives

- *EO 1* List and describe the six Fault Zones in an electric motor circuit, including which tests are used to determine the condition of each Fault Zone.
- *EO 2* Identify the equipment safety parameters.
- *EO 3* Describe the purpose and operation of all major hardware and software components and their associated controls.
- *EO 4* Describe all tests, including initial conditions, performance of the test, basic interpretation of test results, and theory of motor operation as it applies to the test.
- *EO 5* Identify the conditions that may cause the tester to capture inaccurate or unusable data.
- *EO 6* Given results from specific tests, identify the most likely suspect/faulty motor circuit component and the next troubleshooting step to be performed.
- *EO 7* Match applicable industry standards used by the tester to applicable tests.
- *EO 8* Discuss the importance