

AC MOTOR PERFORMANCE & EFFICIENCY TESTING

This seminar is an in-depth review of AC Motors used in industrial processes, focusing on the larger multi-kilowatt machines. Engine performance theory and measurements are covered in great detail, along with live demonstrations of various measurement techniques. Load - Source matching and the cost of mismatching is reviewed, with calculations of the cost of improperly sized motors. Various efficiency enhancements are covered including power correction capacitors, voltage clipping and variable frequency drives, again with live demonstrations. Additional information relating to new vs. rewind motors, motor starting and coupling is also covered. Finally industrial energy assessments and testing services are described.

The emphasis is on demonstrating actual, practical techniques using real equipment. Additionally time is provided for discussion of questions from the industrial audience.

Covered Topics Include:

- * AC Motor Basics
 - Motor Performance: Torque, Current and Efficiency
- * Load - Source Matching
- * Motor Measurements
 - On-Line Measurements
 - Dynamometer Measurements
- * Load Mismatch and Efficiency
- * Starting Considerations
- * Efficiency Improvements:
 - Power Factor Capacitors
 - Voltage Clippers
 - Variable Frequency Drives (Inverters)
- * Other Considerations:
 - Standard vs. Premium Efficiency Motors
 - New vs. Rewound Motors
 - Bearings, Belting and etc.
- * Industrial Assessment and Motor Testing Services

