

EM- 106 MAINTENANCE AND SERVICING OF EXPLOSION PROOF EQUIPMENT

Purpose

We are specialized in providing customized technical training based on **IEC 60079-19** for “Maintenance and Servicing of Explosion Proof Equipment” including Rotating Machines based on client's individual requirements. Courses are designed to comply with current legislative, regulatory standards, directives and guidelines. Training Courses meet the needs of the operator dealing with Explosion Proof (Ex) equipment in Hazardous Areas

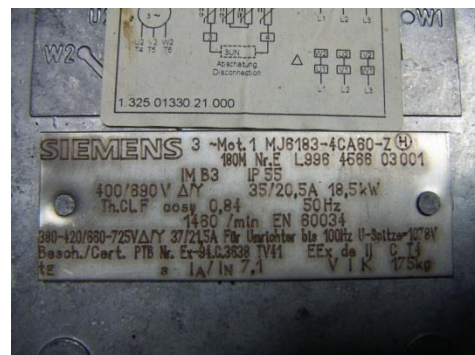
Objectives

1. What are the Health and Safety Practices?
2. Understand the principles of Electrical Motor.
3. Identify and understand the 5 keys losses found in a motor.
4. How to minimize the energy losses in a motor.
5. Understand the usage of Energy Efficiency Motors.
6. Understanding and implementation of Energy Management Program in your work place.
7. Identify and understand the different types of protection used in the Hazardous Area.
8. Understanding the IEC 60079 series and application
9. Standards and Certification and Marking on motors
10. Procedures to Servicing and Maintenance of Explosion Proof Motors.
11. Correct Documentation and Reporting Procedures.
12. Record Keeping.



Who Should Attend

- Facilities Maintenance and Services Engineers
- Facilities Maintenance and Services Supervisors
- All Facilities Services Technicians
- All Maintenance and Services Staffs



Trainer:

Dr. Villalan Ramasamy Erg. M (UBI);MBA (UBI), MCIM (UK), TPM (Ger), MMIM, ASTD (USA), AMP (USA) PSMB
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Content	
<p>Session I: PRINCIPLES OF ELECTRICITY</p> <ul style="list-style-type: none"> • Basic Terminology. • Ohms Laws and its Applications • Basic circuits Analysis • What is Electrical Power? • Differences between AC and DC Current • Alternating Current • Components of AC Circuit • Power Factor • Three Phase Power <p>Session II: ELECTRIC MOTOR</p> <ul style="list-style-type: none"> • Types of Motors • Identify the components of a motor and explain their functions. • Explain how a rotating field is created in an AC motor. • Explain and calculate synchronous speed and explain induction and its effect on a rotor. • Describe the design of a squirrel cage rotor and explain how it works. <p>Session III: EXPLOSION PROOF EQUIPMENTS</p> <ul style="list-style-type: none"> • Area Classification. • Ignition Temperature • Temperature Classification • Ingress Protection • Standards and Certification and Marking on motors • Identify the Flameproof Motor –Ex d. • Identify the Increased Safety Motor-Ex e • Identify the Non Sparking Motor-Ex n • Identify the characteristics of Ex de motors • Assessment 	<p>Session IV: MOTOR MAINTENANCE PROCEDURES</p> <ul style="list-style-type: none"> • Health and Safety • Best Workshop Practice. <ul style="list-style-type: none"> - Storage of Tools and Equipment. - Calibration of Tools and Equipment • Energy Losses in Induction Motor • Overhauling Motor • Rewinding Motor <ul style="list-style-type: none"> - Collecting Winding Data. - Method of stripping winding and its benefits. • Balancing of Rotating Parts • Installation of Bearings and Application of Grease. • Checking Motor Auxiliaries • Assembling of Motor • Testing of Motor • Test Report. • Practical Exercise <ul style="list-style-type: none"> - Understand Motor Name Plate - Testing of Motor - Checking and Measurement of Motor Components. • Practical <p>Session V: MOTOR SERVICE CENTER CHECKLIST</p> <ul style="list-style-type: none"> • Guidelines to a Good Motor Repair • Identifying a Good Motor Service Center. • Service Center Evaluation Guide. <p>PRACTICAL</p>

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