

# PUMP MAINTENANCE AND TROUBLESHOOTING

# **MCE005**

# **COURSE DESCRIPTION**

The high cost of maintenance has prompted many organizations to view the management of the maintenance function with more urgency. The increase in the size and complexity of pumps has resulted in maintenance being accepted as an important mainstream function in such companies.

This course provides the participants with the means to properly operate and support the pumps in a way based on the good acquaintance with the modern technologies applied in this field. Troubleshooting & forecasting break downs are inclusive.

#### **COURSE GOAL**

To enhance the participants' knowledge, skills, and abilities necessary to give him some practical exposure to helps maintain pumps in good operational conditions and cope with the emergency cases of breakdown.

#### **COURSE OBJECTIVES**

By the end of this course, participant will be able to:

- Identify performance characteristics.
- Understand how do pumps actually operate.
- Determine loss of capacity.
- Determine proper procedures for repairing.
- Identify the importance of pump preventive maintenance.

#### WHO SHOULD ATTEND

- Operation & maintenance field engineers.
- Technicians.

#### **COURSE DURATION**

5 Working Days

# **COURSE OUTLINES**

- 1. Positive Displacement Pumps.
  - Performance characteristics.



- How do these pumps actually operate?
- Installation of positive displacement pumps.
  - Leveling.
  - Piping.
- Alignment.
  - Proper alignment.
  - Experienced procedures.
- Troubleshooting.
  - Determining loss of capacity.
- Overhauls / Repairs.
  - Proper procedures for repairing.

### 2. Centrifugal Pumps.

- Performance characteristics.
- How do these pumps actually operate?
- How centrifugal pumps are installed?
  - Leveling.
  - Piping.
- Alignment.
  - Proper alignment.
  - Experienced procedures.
- Troubleshooting & repair.
  - Determining loss of capacity.
  - Proper practices for overhauls, inspection & repair.
  - Proper procedures for repairing.

#### 3. Vertical Pumps.

- Perform.
- How do these pumps actually operate?
  - Nomenclature.
- How vertical pumps are installed.
  - Leveling.
  - Piping.
- Alignment.
  - Proper alignment.



- Experienced procedures.
- Troubleshooting / inspection & repair.
  - Determining loss of capacity.
  - Proper procedures.
- 4. Pump preventive maintenance.
- 5. Typical pump problems and their solutions.

