



**First Select**

## **Centrifugal Pump Repair & Maintenance**

| Date                | Venues | (\$) <b>Fees</b> | Book your seat               |
|---------------------|--------|------------------|------------------------------|
| 14 Dec -18 Dec 2025 | Dubai  | 2900             | <a href="#">Register Now</a> |

### **Objectives:**

1. Identify different types of pumps and their parts
2. Troubleshoot and install mechanical seals
3. Understand pump case repair methods
4. Develop a pump maintenance program

### **You Will Learn:**

- Pumps Repairing
- Pumps Maintenance Preventive
- Troubleshooting Pumps

### **Who should attend?**

- Multi-Craft Technicians
- Maintenance Technicians
- Foreman & Senior Foreman
- Pump System Engineers
- Water Treatment Engineers
- Boiler Operators & Technicians
- Stationary Engineers
- Mechanical & Millwright Technicians
- Building Engineers
- Plant / Facility Managers
- Anyone Interesting In Improving Pump Maintenance & Repair Knowledge!

### **Course Outline:**

#### **CENTRIFUGAL PUMP DESIGN & HISTORY:**

- A Short History of Pumps
- Bernoulli's Principle & the Venturi Effect
- Centrifugal Pump Design

#### **CENTRIFUGAL PUMP PARTS AND IDENTIFICATION:**

- Wetted End Parts
- Dry End Part
- Pump Tree
- Drivers

#### **PUMP BEARING REMOVAL & INSTALLATION:**

- Bearing Types & Life
- Proper Installation of Pump Bearings

## PUMP REPAIRING & MAINTENANCE:

### BEARING FAILURE ANALYSIS

- Disassembling a Bearing for Inspection
- Troubleshooting Bearing Failures

### ACOUSTICAL MEASUREMENT OF PUMP BEARING CONDITION:

- Creation of a Pothole Index
- Spalling and How to Determine When It Occurs
- Pump Bearings Condition Guide
- SPLIT CASE PUMP REBUILDING PROCEDURES & TECHNIQUES

### PUMP CASE REPAIR:

- Spray Metalizing
- Epoxy Repair
- MIG & TIG Repair

### SUCTION & DISCHARGE ENDS REPAIR:

- Piping
- End Suction Pump Rebuilding Procedures & Techniques

### PUMP COUPLING AND SHAFT ALIGNMENT:

- Soft Foot Inspection & Correction
- Shaft Alignment Techniques

### WETTED END PUMP TROUBLESHOOTING:

- Cavitation
- Unbalance of Impellers
- Volute Wear
- Piping Strain
- Air Entrainment
- Seal Failure
- Flange Leaks

### WORKSHOP STYLE:

This will be a participative workshop with a mix of interactive learning sessions, exercises and discussions aimed to provide maximum impact and learning retention for all delegates.



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