

# MECHANICAL COURSES

## MECHANICAL TROUBLESHOOTING for PUMPS, BEARINGS and LUBRICATION (M34B)

**OBJECTIVE:**

This course covers maintenance troubleshooting for most pumps, compressors, bearings and lubrication.

**WHO SHOULD ATTEND?**

The course is recommended for maintenance technicians, supervisors, and those who are involved with maintenance and rotating equipment.

**COURSE CONTENT:**

- Pumps
- Propeller and Turbine Pumps
- Pump Characteristics
- Pump Operation
- Packing and Seals
- Types of Positive Displacement Pumps
- Pump Troubleshooting
- Anti-friction Bearing Types
- Bearing Maintenance and Troubleshooting
- Lubricant Characteristics
- Dynamic Compressors
- Reciprocating Compressors
- Rotary Compressors
- Compressors Control System
- Compressor Maintenance and Troubleshooting

**PRACTICAL TASKS:**

- Disassembling centrifugal positive displacement pumps, types of antifriction bearings and types of lubricants.
- Video tapes of operation maintenance of pumps and compressors.

**Duration: 10 Days**

Date:	Venue:	Cost:
Mar 8-19	Dammam	SR10,000
Aug 23-Sep 3	Dammam	SR10,000

## MILLING PROCEDURES (M17B)

**OBJECTIVE:**

This seminar is designed to provide both theoretical and practical understanding of milling machine operations, processes, and indexing methods.

**WHO SHOULD ATTEND?**

This course is recommended for technicians involved in workshop processes.

**COURSE CONTENT:**

**Milling Procedures:**

- Using a Horizontal Milling Machine
- Slab Milling Procedures
- Milling Slots and Angles
- Straddle, Side and Face Milling
- Milling Key Seats, Squares and Flats

**PRACTICAL TASKS:**

- Milling Open and Closed End Keyseat
- Identify types of Milling Cutters
- Dimensions of Woodruff Key Cutter

**Milling Indexing**

- Using the Dividing Head
- Dividing Head Set-Up
- Milling Spur Gears
- Milling Helical Gears

**PRACTICAL TASKS:**

- Milling Helical Gear

**Duration: 10 Days**

Date:	Venue:	Cost:
Apr 26-May 7	Dammam	SR10,000
Nov 1-12	Dammam	SR10,000