

## Shaft Alignment Z MEC-40

### Duration

Three days 24 Hours

### Who should attend?

Engineers, Supervisors & technicians whose work is connected with machinery maintenance or inspection and those who wish to be familiar with machinery maintenance systems



### Language

Arabic , English

### Overview

Misalignment is a major cause of vibration, bearing & seal failures, oil leakage from bearing frames broken shafts and coupling failures the resulting premature bearing and seal wear has a significant effect on machine life, production availability and ultimately, plant's profitability. Precise & consistent alignment of all rotating equipment will help reduce maintenance costs and unscheduled downtime increase process quality, and extend machine life. The course explains the basic concepts of alignment and how to measure it. The most common methods of correct misalignment are presented to keep equipment running properly and thereby extend equipment life

The course Review the basic concepts of alignment Highlight the requirements for proper alignment and give participants guide to the right steps of pre-alignment, This course Discuss the various methods to correct misalignment, the effect of soft foot on alignment

### Topics

- INTRODUCTION TO ALIGNMENT
  - The need for Proper Alignment
  - Types of Misalignment
  - Foundations, Base plates, and Machine Casings
  - Flexible Couplings
- SOFT FOOT
  - Measuring soft foot conditions
  - Analyzing soft foot conditions
  - Correcting soft foot
  - Troubleshooting, shaft deflection and coupling strain problems, optimal moves/solutions
  - Thermal growth, targets and deliberate misalignment

- **PRE-ALIGNMENT**
  - Base preparation Checks and procedures
  - Procedures and precautions for taking accurate readings and measurements
- **MEASURING & CORRECTING MISALIGNMENT**
  - Misalignment Measuring Tools
  - Allowable Alignment Tolerances
  - Mathematical methods for Proper Machinery Moves
  - Moving Machinery in the field
- **SHAFT ALIGNMENT METHODS**
  - Face and Rim Method
  - Reverse Indicator Method
  - Laser Optical Method