Maintenance & Operation Of Rotating Equipment

Introduction:

This training program aims at providing the participants with a comprehensive theoretical and practical knowledge, and enhancing their skills for the maintenance and operation of rotating equipment. Emphasis shall be laid on topics relevant to machinery maintenance requirements, identify and diagnose the typical faults and troubles of rotating equipment. This includes equipment lubrication, bearing, different types of sealing, coupling, alignment, balance, vibration and analyzes the performance of the rotating equipment components. Selecting the most efficient maintenance strategy will be addressed too.

Who Should Attend?

The training program is designed and targeted to rotating equipment technicians and engineers in charge of troubleshooting, operating and maintaining of rotating equipment. Also personnel involved in balancing, aligning and analyzing vibration of rotating machinery

Methodology:

This interactive Training will be highly interactive, with opportunities to advance your opinions and ideas and will include;

- Lectures
- Workshop & Work Presentation
- Case Studies and Practical Exercise
- Videos and General Discussions

Course Objectives:

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

- Understand different types of pumps, compressors and turbines.
- Operate pumps, compressors and turbines close to the design efficiency.
- Monitor pump compressor and turbine reliability and availability and cost effectiveness
- Select the best operation and maintenance strategy
- Troubleshoot pump, compressor and turbine problems

Course Outline:

Principles and procedures

- Rotating machinery maintenance requirement
- Types of maintenance and the scope of implementation
- Basic guidelines for implementing the convenient type of maintenance.
- Symptoms indicating rotating equipment condition

Rotating equipment Maintenance

- Rotating equipment monitoring techniques
- Diagnosis the rotating equipment
- Troubleshooting data and investigation guidelines
- Build up a troubleshooting expert system

Vibration monitoring and analysis

- Vibration detection and analysis
- Balancing single plane and two planes
- Computer vibration based balancing.

Alignment monitoring and correction

- Alignment theory and alignment methods
- Measuring and correction misalignment
- Laser, rim and face, reverse indicator alignment

Bearings

- Bearings types
- Bearings applications
- Bearings selection
- Lubrication purpose, method of lubrication and tools for application

Gears and Gearbox

- Gearbox, coupling and other rotating machinery components
- Failure analysis techniques of gearbox, bearing, coupling and shafts
- Rotating equipment replacement analysis