Pumps, Compressors And Turbines Troubleshooting Training

Description:

This course is to provide the trainees with a strong background in the field of Advanced Rotating Equipment (Pumps, Compressors, and turbines) maintenance and troubleshooting.

In addition, the trainee will have a background in Pumps, Compressors, and turbines

Performance and construction. The emphasis is placed on understanding the advanced and new techniques of troubleshooting and different methods of maintenance.

During the course participant's discussion, comments, bringing up their own problems are welcomed and encouraged.

Who Should Attend?

Process and Mechanical engineers & technicians who are involved with troubleshooting, selection, operation and maintenance of rotating equipment (Pumps, Compressors, turbines and other mechanical equipment's). Entry level engineers, technicians all the way to senior level will benefit because of the course structure. The course targets engineers in the petrochemical, chemical, refining and power industries.

Course Objectives:

- Familiarize the Attendees with different types of rotating equipment
- Learn the principles of operation of the pumps, compressors, and turbines.
- Highlight the importance of seals and bearings on rotating equipments availability
- To enable the attendees to grasp the advanced information in preventive as well as
- predictive maintenance of rotating equipment
- To present the advanced condition monitoring technologies stressing on vibration and oil analysis.
- Learn the troubleshooting the rotating equipment

Course Outline:

Day 1:

- Pumps
- Centrifugal Pump: Construction Performance Maintenance Troubleshooting
- Positive-Displacement Pumps: Types, Performance, Troubleshooting
- Compressors: Overview: Compression Methods
- Positive-Displacement Compressors
- Roto-Dynamic Compressors

Day 2:

- Compressors: Centrifugal Maintenance and Troubleshooting
- Rotary Maintenance and Troubleshooting

- Turbines: Design and construction of different types of gas turbines.
- Auxiliary systems: air inlet system, exhaust system, regenerators, seals.
- Gas turbine Maintenance and common problems.
- Gas turbine troubleshooting

Day 3:

- Vibration Monitoring and Analysis:
- Vibration Analysis: Application and Overview
- Vibration: Sources and Theory
- Machine Dynamics
- Vibration Analysis Techniques

Day 4:

- Machine and Lubricant Condition Monitoring

Day 5:

- Rotating Equipment Seals: Types Classification Failure Troubleshooting
- Case studies and discussion of problems provided by attendees.