



Inspect and Performance Evaluation of Rotating Equipment

Course Duration : 5 days

Date : 09-Sep-2024 to 13-Sep-2024

Location : Prague, Czech Republic

Summary:

this course is essential for anyone who is involved in the selection, applications, performance evaluation or maintenance of rotating equipment because it covers the various types of rotating equipment including Centrifugal Pumps, Positive Displacement Pumps, Compressor Components, Reciprocated Compressors and steam Turbines. The course provides an understanding of how this equipment operates, introduces participants to the latest preventive and predictive maintenance techniques, and provides guidelines and rules that ensure the performance evaluation and successful operation of this equipment to increase reliability of the equipment and reduce operation and maintenance costs.

Objective:

Participants will learn how to:

- Introduce and define types of rotating machinery in oil production
- Operation and maintenance of Rotating equipments
- Establish and describe the principles of operation and maintenance of rotating machinery
- Become familiar with the evaluation techniques for the performance of rotating equipment.
- Develop a clear understanding of maintenance function and the role of maintenance personnel

Contents:



Centrifugal Pumps

- Centrifugal force
- Fundamentals of a centrifugal pumps
- Various kinds of impellers
- Single stage pump
- Double suction pump
- Multi- stage pumps
- Bearings
- Packed glands and mechanical seals
- Operation of centrifugal pumps
- Trouble shooting

Positive Displacement Pumps

- Pump types
- Reciprocating pumps
- Piston- plunger
- Diaphragm
- Rotary pumps
- Pumps main components
- Steam driven reciprocating pumps
- Troubleshooting

Compressor Components

- Compressor components
- Compressor seals
- Seal Oil system
- Start up operation and shutdown

Reciprocated Compressors

- Single acting cylinder
- Double acting cylinder



- Reciprocated compressors main components
- Compressors cooling
- Reciprocated compressor performance
- Mechanical efficiency
- Volumetric efficiency
- Compressor Control
- Trouble shooting

Steam Turbines

- Impulse type
- Reaction type
- Type steam turbines main components
- Bearing and glands
- Governors
- Start up and shutdown

Coupling Alignment

- Types of misalignment
- Straightedge/feeler gauge method
- Dial indicator method
- Practical application