

# **Rotating Equipment Maintenance And Troubleshooting**





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Ref: 321624\_142250 Date: 13 - 17 Jan 2025 Location: Prague (Czech) Fees: 4400 Euro

#### Introduction:

Pumps and compressors are the tow pieces of equipment which are used in almost all manufacturing and processing plants. The effectiveness of their selection, specifications, operations, maintenance and troubleshooting has tremendous impact on plant productivity. An understanding of the basic principles involved, how they work, what can go wrong, troubleshooting and preventive maintenance can go a long way to increase productivity. In addition, pumps and compressors are generally critical machines in any production process, and hence it is vital that maintenance is most effective for these units.

# **Course Objectives of Rotating Equipment Maintenance And Troubleshooting**

- The program assumes familiarity with troubleshooting and maintenance of rotating equipment.
- the program investigates the root causes of failure, and relates these to operating conditions and process parameters.
- mechanisms are identified and a detailed understanding of the troubleshooting and diagnostic methods needed to detect and identify these is developed.
- The program provides participants with the knowledge needed to be effective in the inspection, monitoring and diagnostics of pumps and compressors, with emphasis placed upon the importance of a combined condition monitoring and strip-down inspection approach to maintenance.
- This program aims to provide delegates with a comprehensive understanding of how to use a combined predictive and preventive maintenance approach to achieve maximum reliability and greatest understanding of any deterioration that may occur.
- This course focuses on the essentials to add to the skills of those who are responsible for plant equipment to reduce breakdowns and get more operation hour.
- The program provides participants with the knowledge needed to be effective in the inspection, monitoring and diagnostics of pumps and compressors, with emphasis placed upon the importance of a combined condition monitoring and strip-down inspection approach to maintenance.

# Rotating Equipment Maintenance And Troubleshooting Course Outlines

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PARTNER

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#### DAY 1

- Rotating equipment overview
- Fluid mechanics and systems, an overview
- Pump fundamentals
- Pump selection and sizing
- Pump installation and operation

#### DAY 2

- Compressor installation and operation
- Alignment and mechanical consideration
- Antifriction and hydrodynamic bearings
- Flexible coupling installation and operation

#### DAY 3

- The effect of a gas density change
- Compressor selection and sizing
- Compressor design and maintenance
- Shaft sealing

#### DAY 4

- Steam turbine function and types
- Steam turbine operation and maintenance
- Gas turbine types, applications and operation
- Gas turbine performance and maintenance

#### **DAY 5**

- Functions and failures, predictive and preventive maintenance
- Failure consequences and analysis
- Steam turbine troubleshooting
- Pumps and compressors system troubleshooting



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