

Rotating Equipment & Turbo Machinery Operation & Maintenance

COURSE OVERVIEW

This course provides hands-on, practical training in the operation, maintenance, and reliability of rotating equipment and turbomachinery, including pumps, compressors, turbines, and motors. The curriculum focuses on predictive and preventive maintenance techniques, troubleshooting methods, and best practices for improving equipment integrity and operational efficiency in industrial environments. Participants will deepen their understanding of mechanical performance, vibration analysis, lubrication systems, alignment procedures, and failure prevention strategies essential for ensuring safe and reliable machinery operations.

WHO SHOULD ATTEND?

This course is ideal for mechanical engineers, maintenance engineers, reliability engineers, operations supervisors, plant technicians, and technical personnel involved in rotating equipment and turbomachinery operations. It is also suitable for professionals seeking practical skills in troubleshooting, preventive maintenance, and performance optimization of pumps, compressors, turbines, and motors.

COURSE OUTCOMES

Delegates will gain the skills and knowledge to:

- Analyze rotating equipment and turbomachinery performance to identify operational deficiencies.
- Implement vibration analysis and condition monitoring techniques.
- Execute precision alignment and balancing procedures.
- Troubleshoot bearing, seal, and lubrication system failures.
- Develop and optimize preventive and predictive maintenance programs.
- Conduct root cause analysis and implement corrective actions for equipment failures.

KEY COURSE HIGHLIGHTS

At the end of the course, you will understand;

- Rotating equipment dynamics and turbomachinery performance characteristics.
- Vibration analysis and condition monitoring methodologies.
- Bearing and seal selection, installation, and maintenance.
- Alignment techniques and balancing procedures.
- Lubrication principles and oil analysis.
- Failure analysis and root cause determination.
- Maintenance strategy development and reliability optimization.

All our courses are dual-certificate courses. At the end of the training, the delegates will receive two certificates.

1. A GTC end-of-course certificate
2. Continuing Professional Development (CPD) Certificate of completion with earned credits awarded