MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

Phone: +601116373203 | **Email:** info@mawaevents.net

INNOVATIVE COMPRESSOR SYSTEMS: MAINTENANCE AND TROUBLESHOOTING EXCELLENCE

"Master advanced techniques for maximizing compressor performance, reliability, and efficiency."

Schedule

Date	Venue	Fees (Face-to-Face)
06 - 10 Jul2026	London - UK	USD 3495 per delegate

► **Available delivery methods:** Face-to-Face & Online Training

Introduction

This course provides a comprehensive and practical approach to the maintenance and troubleshooting of innovative compressor systems used in various industries. Participants will gain deep insights into compressor design, operation, failure mechanisms, and cutting-edge maintenance strategies to ensure peak performance and minimal downtime.

Through a mix of theory, real-world examples, and hands-on exercises, the course equips professionals with the tools to identify, analyze, and resolve compressor issues effectively. It is designed to help participants reduce operational costs, extend equipment life, and enhance overall system reliability.

Objectives

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

- Understand the fundamental principles of compressor operation and design
- Apply advanced troubleshooting techniques for compressor systems
- Identify common failure modes and implement preventive solutions
- Develop effective maintenance strategies for various compressor types
- Optimize compressor performance and energy efficiency

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Why Attend

- Master best practices for compressor system maintenance and troubleshooting
- Learn how to diagnose and address operational issues before they escalate
- Improve equipment reliability, reduce downtime, and lower maintenance costs
- Gain hands-on experience through real-world case studies and exercises
- Strengthen your ability to plan and execute comprehensive maintenance programs

Target Audience

This program is designed for:

- Maintenance engineers and technicians working with compressor systems
- Reliability engineers seeking to improve compressor performance
- Plant and operations managers responsible for equipment uptime
- Mechanical engineers involved in system design and maintenance
- Technical professionals and supervisors overseeing industrial compressor operations

Individual Benefits

Key competencies that will be developed include:

- Troubleshooting and diagnostic skills specific to compressor systems
- Advanced knowledge of compressor components and operating principles
- Practical ability to perform maintenance and system optimization
- Skills to develop preventive and predictive maintenance schedules
- Confidence in addressing compressor failures with effective solutions

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Enhanced compressor reliability and extended equipment lifespan
- Reduced unscheduled downtimes and maintenance-related disruptions
- Improved energy efficiency and reduced operational costs
- A systematic approach to troubleshooting and maintenance planning
- Strengthened maintenance team capabilities and technical expertise

Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Expert Lectures – Detailed exploration of compressor systems, components, and failure modes
- Case Studies – Real-world examples of compressor maintenance successes and challenges
- Hands-On Workshops – Practical exercises for troubleshooting and optimizing compressor systems
- Interactive Discussions – Peer exchange of experiences and solutions to common issues
- Technical Tools – Access to diagnostic tools, checklists, and maintenance templates

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Course Outline

Detailed 5-Day Course Outline

Training Hours: 7:30 AM – 3:30 PM **Daily Format:** 3–4 Learning Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

Day 1: Compressor Fundamentals and System Overview

- Module 1: Introduction to Compressor Systems (07:30 – 09:30)
- Types of compressors and their applications
- Basic operating principles and key components
- Understanding system configurations and performance parameters
- Module 2: Compressor Design and Operating Conditions (09:45 – 11:15)
- Design considerations for reliability and efficiency
- Impact of operating conditions on compressor performance
- Identifying critical parameters for optimal operation
- Module 3: Workshop: System Walkthrough and Analysis (11:30 – 01:00)
- Hands-on exercise reviewing compressor system layouts and identifying improvement areas

Day 2: Maintenance Best Practices

- Module 4: Preventive Maintenance Strategies (07:30 – 09:30)
- Establishing preventive maintenance routines
- Key inspection points and service intervals
- Lubrication management and parts replacement
- Module 5: Predictive Maintenance Techniques (09:45 – 11:15)
- Introduction to condition monitoring tools and technologies
- Vibration analysis, thermography, and oil analysis
- Integrating predictive maintenance into operational plans
- Module 6: Workshop: Designing a Maintenance Plan (11:30 – 01:00)
- Group exercise creating a customized maintenance schedule for compressor systems

Day 3: Troubleshooting and Diagnostics

- Module 7: Common Failure Modes and Root Causes (07:30 – 09:30)
- Identifying and analyzing typical compressor failures
- Mechanical, electrical, and process-related failure mechanisms
- Module 8: Advanced Troubleshooting Techniques (09:45 – 11:15)
- Systematic approach to fault detection and resolution
- Using diagnostic tools and interpreting results
- Module 9: Workshop: Troubleshooting Scenarios (11:30 – 01:00)
- Practical exercises resolving compressor system issues

Day 4: Performance Optimization

- Module 10: Enhancing Compressor Efficiency (07:30 – 09:30)
- Strategies to optimize energy consumption
- Reducing pressure drops and leaks
- Performance tuning and control systems
- Module 11: Reliability Improvement Techniques (09:45 – 11:15)
- Balancing maintenance costs and equipment uptime
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Implementing reliability-centered maintenance (RCM)

- Continuous improvement practices
- Module 12: Workshop: System Optimization Planning (11:30 – 01:00)
- Developing an action plan for performance improvement

Day 5: Review and Certification

- Module 13: Final Review and Q&A (07:30 – 09:30)
- Summary of key takeaways and technical discussions
- Module 14: Group Presentation: Maintenance and Troubleshooting Plan (09:45 – 11:15)
- Team presentations and peer feedback on maintenance strategies
- Module 15: Certification and Closing Remarks (11:30 – 01:00)
- Awarding of certificates and final course wrap-up

Certification

Participants will receive a Certificate of Completion in Compressor Maintenance and Troubleshooting Excellence, recognizing their expertise in maintaining, troubleshooting, and optimizing compressor systems for industrial applications.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation’s unique goals.

In-House / Customized Training Interested in running this course for your team? Please contact us:	TEL: **+601116373203**	EMAIL: **info@mawaevents.net**