Screw Compressors Operation And Maintenance

TR192

Course Overview:

This advanced course is tailored for maintenance and engineering professionals working with screw compressors in industrial settings. It addresses the operational complexities, maintenance needs, and troubleshooting challenges of these critical systems. Participants will gain actionable skills for optimizing compressor performance, reducing downtime, and ensuring safety and compliance in compressed air systems.

Course Objective:

-Understand the design, operation, and applications of screw compressors

-Apply preventive and predictive maintenance techniques to enhance equipment reliability

-Diagnose and resolve common compressor faults using advanced tools

-Optimize compressor efficiency to reduce energy consumption and operational costs

-Ensure safe operations aligned with industry compliance standards

Course Outline:

Module 1: Fundamentals of Screw Compressors

-Design and working principles

-Types and industrial applications

-Key performance characteristics

Module 2: Advanced Maintenance Techniques

-Routine and preventive maintenance

-Condition monitoring methods

-Overhaul and component replacement

Module 3: Troubleshooting and Failure Analysis

-Common failure modes and root causes

-Use of diagnostic tools

-Implementing corrective actions

Module 4: Efficiency Optimization

-Performance enhancement strategies

-Energy conservation techniques

-Cost-reduction analysis

Module 5: Safety and Compliance

-Safety protocols and procedures

-Industry compliance standards

-Risk management practices

Module 6: Emerging Technologies

-Latest innovations in compressor engineering

-Automation and digital monitoring

-Future trends in compressed air systems

Module 7: Case Studies and Industry Insights

-Analysis of real-world compressor issues

-Maintenance challenges and solutions

-Lessons from industry best practices

Training Language:

English

Training Methodology:

The course combines various teaching methods, including instructor-led presentations, group discussions, case study analyses, and assessments through quizzes and a final exam to engage participants and ensure they understand and retain the material.

Venue | Date | Fees

Jubail | 19-10-2025 | 17,250 SAR

Module 8: Interactive Workshops and Training Sessions

-Group discussions and feedback

-Scenario-based learning

-Knowledge sharing sessions

Who Should Attend:

-Maintenance Engineers

-Mechanical Engineers

-Compressor Technicians

-Technical Staff in Industrial Maintenance