



*Training Course:  
Compressor & Pump Technology*

*13 - 24 June 2027  
Istanbul (Turkey)  
DoubleTree by Hilton Istanbul Esentepe*

## Training Course: Compressor & Pump Technology

Training Course code: EN6024 From: 13 - 24 June 2027 Venue: Istanbul (Turkey) - DoubleTree by Hilton Istanbul Esentepe Training Course Fees: 11150 ₺ Euro

### Introduction

Compressors and pumps are critical rotating equipment in industrial systems, responsible for the movement and compression of fluids in sectors such as oil & gas, petrochemicals, power generation, and manufacturing. Their performance directly impacts process efficiency, energy consumption, and operational reliability.

This program, designed by Global Horizon Training Center, provides a comprehensive 10-day training that equips participants with advanced knowledge and practical skills in the design, operation, maintenance, and optimization of compressors and pump systems.

### Course Objectives

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

- Understand the principles of pump and compressor operation
- Identify different types and applications of pumps and compressors
- Analyze performance characteristics and system behavior
- Perform sizing and selection calculations
- Diagnose operational issues and failures
- Apply maintenance and reliability strategies
- Optimize system efficiency and energy usage
- Ensure compliance with industry standards API, ISO

### Target Audience

This program is designed for:

- Mechanical and Process Engineers
- Maintenance and Reliability Engineers
- Plant Operators and Technicians
- Oil & Gas and Industrial Professionals
- Facility and Utility Engineers
- Technical staff working with rotating equipment

### Outline

#### Day 1: Fundamentals of Pumps and Compressors

- Overview of rotating equipment
- Fluid dynamics basics
- Differences between pumps and compressors
- Components and terminology
- Safety considerations

#### Day 2: Pump Technology and Applications

- Centrifugal and positive displacement pumps
- Pump selection and applications
- Performance characteristics
- System requirements
- Case examples

#### Day 3: Pump Performance and System Analysis

- Pump curves and system curves
- Efficiency and energy consumption
- Cavitation and NPSH
- Flow control methods
- Performance optimization

#### Day 4: Pump Installation, Operation, and Maintenance

- Installation best practices
- Alignment and commissioning
- Preventive and predictive maintenance
- Troubleshooting pump issues
- Reliability improvement

#### Day 5: Compressor Types and Principles

- Reciprocating compressors
- Centrifugal compressors
- Screw and rotary compressors
- Applications and limitations
- Selection criteria

#### Day 6: Compressor Performance and Operation

- Compression processes and thermodynamics
- Performance curves and efficiency
- Surge and stall phenomena
- Control systems
- Monitoring and diagnostics

#### Day 7: Compressor Installation and Maintenance

- Installation and commissioning
- Lubrication and cooling systems

- Maintenance strategies
- Fault diagnosis and troubleshooting
- Reliability management

#### Day 8: System Integration and Optimization

- Integration of pumps and compressors in systems
- Energy efficiency improvement
- Load management and control
- Process optimization
- Digital monitoring tools

#### Day 9: Failure Analysis and Reliability Engineering

- Common failure modes
- Root cause analysis RCA
- Condition monitoring techniques
- Reliability-centered maintenance RCM
- Case studies

#### Day 10: Standards, Best Practices, and Case Studies

- API standards API 610, API 617, API 618
- ISO standards and compliance
- Best practices in operation and maintenance
- Real-world industrial case studies
- Final review and assessment

## Registration form on the Training Course: Compressor & Pump Technology

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Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

### Delegate Information

Full Name (Mr / Ms / Dr / Eng): .....  
Position: .....  
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Personal E-Mail: .....  
Official E-Mail: .....

### Company Information

Company Name: .....  
Address: .....  
City / Country: .....

### Person Responsible for Training and Development

Full Name (Mr / Ms / Dr / Eng): .....  
Position: .....  
Telephone / Mobile: .....  
Personal E-Mail: .....  
Official E-Mail: .....

### Payment Method

- ☐ Please find enclosed a cheque made payable to Global Horizon
- ☐ Please invoice me
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### Easy Ways To Register

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info@gh4t.com  
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