Global Horizon
TRAINING CENTER

Training Course:
Pipes and Piping Systems Optimisation

21 - 25 September 2026
Cape Town (South Africa)
DoubleTree by Hilton Cape Town - Upper Eastside

Training Course:
Pipes and Piping Systems Optimisation

Training Course code: EN6048 From: 21 - 25 September 2026 Venue: Cape Town (South Africa) - DoubleTree by Hilton Cape Town - Upper Eastside Training Course Fees: 7500 Euro

Introduction

Piping systems are critical to the safe and efficient transport of fluids in industries such as oil & gas, petrochemicals, power generation, and manufacturing. Optimizing piping systems improves flow efficiency, reduces energy consumption, minimizes pressure losses, and enhances system reliability.

This program, designed by Global Horizon Training Center, equips participants with the technical knowledge and practical skills required to analyze, design, and optimize piping systems for improved performance, safety, and cost efficiency.

Course Objectives

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

- Understand piping system design principles and configurations
- Analyze fluid flow behavior and pressure losses
- Optimize pipe sizing and routing for efficiency
- Select appropriate materials and components
- Apply relevant codes and standards ASME, API
- Identify and resolve operational issues in piping systems
- Improve energy efficiency and reduce operational costs
- Ensure safety and system reliability

Target Audience

This program is designed for:

- Mechanical and Piping Engineers
- Process Engineers
- Maintenance and Reliability Engineers
- Oil & Gas and Industrial Professionals
- Design and Project Engineers
- Technical staff involved in piping systems

Outline

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Day 1: Fundamentals of Piping Systems

- Overview of piping systems and applications
- Types of piping systems and layouts
- Pipes, fittings, valves, and supports
- Materials and specifications
- Codes and standards ASME B31

Day 2: Fluid Flow and Hydraulic Analysis

- Fluid properties and flow behavior
- Pressure drop and head loss calculations
- Flow regimes and Reynolds number
- Pump and system curves
- Hydraulic optimization

Day 3: Piping Design and Optimization Techniques

- Pipe sizing and routing strategies
- Minimizing pressure losses
- Energy efficiency considerations
- System balancing and control
- Design optimization methods

Day 4: Stress Analysis and Integrity Management

- Thermal expansion and flexibility analysis
- Stress analysis basics
- Corrosion and erosion management
- Inspection and maintenance strategies
- Risk-based inspection RBI

Day 5: Troubleshooting, Optimization, and Case Studies

- Identifying and resolving piping issues
- Root cause analysis
- Performance optimization techniques
- Cost reduction strategies
- Case studies and real-world applications

Registration form on the Training Course: Pipes and Piping Systems Optimisation

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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: .....
Telephone / Mobile: .....
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
- ☐ Please invoice my company

Easy Ways To Register

Telephone: +201095004484 to provisionally reserve your place.	Fax your completed registration form to: +20233379764	E-mail to us : info@gh4t.com or training@gh4t.com	Complete & return the booking form with cheque to:Global Horizon 3 Oudai street, Aldouki, Giza, Giza Governorate, Egypt.