



*Training Course:  
Oil and Gas Processing Flow Measurement*

*27 September - 8 October 2026  
Dubai (UAE)*

## Training Course: Oil and Gas Processing Flow Measurement

Training Course code: EN616 From: 27 September - 8 October 2026 Venue: Dubai (UAE) - Training Course Fees: 9240 € Euro

### Introduction

Flow measurement is a critical function in oil and gas processing, directly impacting production efficiency, process control, and financial accountability. Accurate measurement of liquids, gases, and multiphase flows is essential across upstream, midstream, and downstream operations.

This program, designed by Global Horizon Training Center, provides a comprehensive 10-day training that equips participants with advanced technical knowledge and practical skills to design, operate, calibrate, and optimize flow measurement systems in oil and gas facilities in compliance with international standards.

### Course Objectives

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

- Understand advanced principles of fluid flow and measurement
- Select and design flow measurement systems for oil and gas processes
- Apply measurement techniques for liquids, gases, and multiphase flow
- Perform calibration, proving, and uncertainty analysis
- Integrate flow measurement systems with control and data systems
- Analyze measurement data and detect errors
- Apply international standards API, ISO
- Optimize measurement accuracy and system performance

### Target Audience

This program is designed for:

- Instrumentation and Control Engineers
- Process and Production Engineers
- Measurement and Calibration Specialists
- Oil & Gas Operations Personnel
- Pipeline and Facility Engineers
- Technical professionals involved in metering systems

### Outline

#### Day 1: Fundamentals of Flow Measurement

- Fluid flow principles laminar, turbulent
- Flow measurement units and standards
- Types of fluids liquid, gas, multiphase
- Measurement system overview
- Safety considerations

#### Day 2: Fluid Properties and Flow Behavior

- Density, viscosity, and compressibility
- Flow regimes and Reynolds number
- Pressure and temperature effects
- Multiphase flow behavior
- Measurement challenges

#### Day 3: Differential Pressure Flow Meters

- Orifice plates, venturi, and flow nozzles
- Design and installation
- Flow equations and calculations
- Advantages and limitations
- Performance optimization

#### Day 4: Mechanical and Positive Displacement Meters

- Turbine meters
- Positive displacement meters
- Application in custody transfer
- Accuracy and maintenance
- Calibration techniques

#### Day 5: Advanced Flow Measurement Technologies

- Ultrasonic flow meters
- Coriolis flow meters
- Electromagnetic flow meters
- Selection criteria and applications
- Installation best practices

#### Day 6: Multiphase Flow Measurement

- Principles of multiphase flow measurement
- Measurement techniques and technologies
- Challenges and limitations
- Applications in upstream operations
- Data interpretation

#### Day 7: Calibration, Proving, and Uncertainty Analysis

- Calibration standards and procedures
- Proving systems pipe provers, master meters

- Measurement uncertainty calculations
- Traceability and compliance
- Quality assurance

#### Day 8: Data Acquisition and Control Systems

- Flow computers and data logging
- Integration with SCADA and control systems
- Signal processing and communication
- Data validation and reporting
- Cybersecurity considerations

#### Day 9: Troubleshooting and Maintenance

- Identifying measurement errors
- Diagnostic tools and techniques
- Preventive and predictive maintenance
- Root cause analysis
- System reliability improvement

#### Day 10: Standards, Optimization, and Case Studies

- API MPMS and ISO standards
- Compliance and auditing
- Performance optimization strategies
- Best practices in flow measurement
- Case studies and real-world applications

## Registration form on the Training Course: Oil and Gas Processing Flow Measurement

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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  
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