



*Training Course:  
Flow of Solids – Pneumatic*

*25 - 29 April 2027  
Cairo (Egypt)*

## Training Course: Flow of Solids & Pneumatic

Training Course code: EN235484 From: 25 - 29 April 2027 Venue: Cairo (Egypt) - Training Course Fees: 4410 € Euro

### Introduction

Pneumatic conveying is a widely used method for transporting bulk solids in industries such as cement, food processing, chemicals, pharmaceuticals, and power generation. Efficient handling of solids flow requires a deep understanding of particle behavior, air-solid interaction, system design, and operational control.

This 5-day intensive training program, developed by Global Horizon Training Center, provides a comprehensive and practical approach to the flow of solids and pneumatic conveying systems. It covers conveying principles, system design, equipment selection, troubleshooting, and optimization techniques.

Participants will gain the knowledge and skills required to design, operate, and maintain pneumatic conveying systems efficiently while minimizing operational issues such as blockages, wear, and energy losses.

### Course Objectives

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

- Understand the fundamentals of solids flow and particle behavior
- Differentiate between dilute phase and dense phase conveying
- Design and analyze pneumatic conveying systems
- Select appropriate equipment blowers, compressors, pipelines
- Identify and troubleshoot conveying problems
- Optimize system performance and energy efficiency
- Reduce wear, erosion, and material degradation

### Target Audience

- Mechanical and Process Engineers
- Plant and Operations Engineers
- Maintenance and Reliability Engineers
- Bulk Material Handling Professionals
- Engineers in cement, food, chemical, and industrial sectors

### Outline

Day 1: Fundamentals of Solids Flow and Pneumatic Conveying

- Characteristics of bulk solids size, density, moisture
- Flow behavior and classification
- Introduction to pneumatic conveying systems
- Advantages and limitations

#### Day 2: Conveying Modes and System Types

- Dilute phase vs dense phase conveying
- Pressure and vacuum systems
- Plug flow and fluidized flow
- Applications in different industries

#### Day 3: System Design and Equipment Selection

- Design parameters velocity, pressure, flow rate
- Pipeline sizing and layout
- Blowers, compressors, and feeders
- Material handling equipment

#### Day 4: Operational Challenges and Troubleshooting

- Blockages, plugging, and material buildup
- Pipe wear and erosion
- Particle degradation
- Air leakage and pressure loss
- Troubleshooting techniques

#### Day 5: Optimization and Performance Improvement

- Energy efficiency and cost reduction
- System monitoring and control
- Maintenance strategies
- Case studies and best practices
- Final workshop: Designing a pneumatic conveying system

## Registration form on the Training Course: Flow of Solids □ Pneumatic

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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
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### Easy Ways To Register

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info@gh4t.com  
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to: Global Horizon  
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