

Compressor Control Course

Consultant / Trainer

Jan van Opstal



The **Petrogenium.** Compressor Control Course is focused on the Process Control of Axial- and Centrifugal compressors, driven by Gas turbines, Electrical motors and Steam turbines. The course covers Compressor Capacity controls and Anti-Surge Controls. This course is provided by a trainer with 35 years of industry experience, and the main focus is on practical cases as well as demonstrations in UNISIM®* Dynamics simulation software.



Participants

This **Petrogenium.** course can be adapted for a variety of professionals, including:

- Process Engineers, Mechanical Engineers
- Operations Personnel (Operators, Supervisors, Technicians)
- Instrumentation & Control (I&C) Engineers/Technicians
- Reliability Engineers and Safety Engineers
- Project Engineers



Learning Objectives

- Compressor Capacity Control Methods
- Compressor Anti-Surge Control Systems
- Project execution of Compressor Control systems
- Commissioning and Start-up of Compressor Control Systems
- Surge testing of Axial- and Centrifugal compressors
- Steam Turbine Control system focused on Woodward® 509

Programme

DAY 1

Compressor Capacity Control

- General introduction to Centrifugal- and Axial Compressors
- Types of Compressor Capacity Controls
- Types of Compressor drives: GT, Steam Turbine and Electrical drives
- Compressor Performance Curves
- UNISIM® Dynamics demonstration

Compressor Anti-Surge Controls

- Components in Anti-Surge Control
- From Compressor Performance curves to Anti-Surge Control strategy
- Anti-Surge Control Instrumentation
- UNISIM® Dynamics demonstration

DAY 2

- General Control Theory
- General PID controller tuning
- Parallel Compressor Control strategies
- Compressor Surge testing
- Compressor Control designs all phases of projects

DAY 3

Compressor Control extension

- Anti-surge control valves
- Coast Down Surge
- Compressor Control Troubleshooting
- Compressor Control Monitoring
- Compressor with IGVs
- Steam Turbine control Woodward® 5009

DAY 4

Compressor Control and Process Safety

- Compressors and Overpressure Scenarios
- Compressor and HAZOP studies
- Compressor and LOPA Studies
- Compressor and IEC-61511 Process Safety compliances

Onsite Training can be customized for Clients

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Why select Petrogenium.?

The above support will be provided by principal consultants with 30+ years world-class experience in the technology and hands-on know-how from operation of refinery units.

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Email: training@petrogenium.com

Website: <https://www.petrogenium.com/training/>

Because Experience Matters