

## ADVANCED CONTROL VALVES TECHNOLOGY

*“Maximizing Plant Efficiency through Advanced Valve Selection, Operation, and Maintenance”*

### Schedule

Date	Venue	Fees (Face-to-Face)
04 – 05 Jun 2026	Dubai, UAE	USD 1995 per delegate
11 – 12 Aug 2026	Doha, Qatar	USD 1995 per delegate

► **Available delivery methods:** Face-to-Face & Online Training

### Introduction

This intensive 2-day training is designed to provide engineers, technicians, and maintenance professionals with deep expertise in advanced control valve technology. Participants will explore the latest innovations in valve design, selection, operation, and maintenance to ensure optimal plant performance and reliability.

By combining theoretical insights with hands-on exercises, the course enables participants to understand complex control systems, troubleshoot common valve issues, and apply best practices for extending equipment life and improving process efficiency.

### Objectives

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

- Understand the principles and functions of advanced control valves
- Select appropriate valves for various industrial applications
- Diagnose and troubleshoot valve performance issues
- Apply best practices in valve maintenance and calibration
- Enhance overall system reliability and process efficiency

## Why Attend

- Gain advanced knowledge of modern control valve technologies
- Improve plant performance through better valve selection and maintenance
- Reduce downtime and operational risks by mastering troubleshooting techniques
- Enhance technical competency and confidence in handling complex systems
- Stay updated with industry standards and technological advancements

## Target Audience

This program is designed for:

- Mechanical, process, and instrumentation engineers
- Maintenance supervisors and technicians
- Plant managers and reliability engineers
- Professionals involved in plant operations and system optimization
- Anyone responsible for the performance and upkeep of control valve systems

## Individual Benefits

Key competencies that will be developed include:

- Expertise in advanced control valve principles and applications
- Ability to perform effective valve selection and sizing
- Skills in diagnosing operational issues and implementing solutions
- Knowledge of preventive maintenance practices to extend equipment life
- Improved technical decision-making and problem-solving capabilities

## Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Enhanced plant performance and efficiency through optimized valve systems
- Reduced maintenance costs and equipment downtime
- Improved reliability and safety of critical operations
- Stronger technical teams capable of addressing complex challenges
- Better alignment with industry best practices and standards

## Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Strategy Briefings - Deep dives into advanced valve technologies and their operational roles
- Case Studies - Real-world examples of valve performance improvements and failures
- Workshops - Hands-on exercises in valve selection, calibration, and maintenance procedures
- Peer Exchange - Group discussions on troubleshooting experiences and best practices
- Tools - Reference materials, checklists, and troubleshooting guides for practical use

## Course Outline

**Training Hours:** 7:30 AM – 3:30 PM **Daily Format:** 3-4 Learning Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

### Day 1: Fundamentals and Advanced Applications

- Module 1: Principles of Control Valves (07:30 – 09:30)
  - Overview of control valve functions and types
  - Understanding flow characteristics and valve performance
  - Key considerations in valve selection and sizing
- Module 2: Advanced Valve Technologies (09:45 – 11:15)
  - Latest innovations in control valve design
  - Smart valves and digital valve controllers
  - Integration of valves into automated control systems
- Module 3: Valve Operation and Diagnostics (11:30 – 01:00)
  - Common operational issues and performance losses
  - Diagnostic tools and techniques for valve assessment
  - Case examples of troubleshooting complex valve problems

### Day 2: Maintenance, Calibration, and Optimization

- Module 1: Maintenance Best Practices (07:30 – 09:30)
  - Preventive vs. predictive maintenance approaches
  - Calibration techniques for maintaining optimal performance
  - Common pitfalls and how to avoid maintenance errors
- Module 2: Improving System Efficiency (09:45 – 11:15)
  - Strategies for optimizing valve performance in the plant
  - Impact of proper valve management on process efficiency
  - Benchmarking and performance measurement
- Module 3: Practical Applications and Case Studies (11:30 – 01:00)
  - Hands-on exercises in valve calibration and adjustment
  - Group discussion of real-world challenges and solutions
  - Developing an action plan for workplace application

## Certification

Participants will receive a Certificate of Completion in Advanced Control Valves Technology, validating their expertise in the selection, operation, and maintenance of advanced control valve systems for improved plant performance and reliability.

## Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
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