

PRACTICAL PUMP AND VALVE TECHNOLOGY

"Master the Operation, Maintenance, and Troubleshooting of Industrial Pumps and Valves for Maximum Efficiency and Reliability."

Schedule

Venue (In-house)	Fees
At Your Organization Premises	Ask For The Quotation

► **Available delivery methods:** In-House Training

Introduction

Pumps and valves are the heart of process systems, and their performance directly impacts efficiency, reliability, and safety. Misoperation, poor maintenance, or incorrect selection can lead to equipment failure, production downtime, and increased operational costs.

The Practical Pump and Valve Technology course equips participants with hands-on knowledge and technical skills to select, operate, maintain, and troubleshoot various types of pumps and valves used in industrial processes. Through real-world examples, practical exercises, and case studies, participants will gain a deep understanding of fluid handling systems and their optimal performance.

Objectives

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

- Understand different types of pumps and valves, their design, and applications.
- Evaluate pump and valve selection for process conditions.
- Perform proper installation, commissioning, and start-up procedures.
- Identify and troubleshoot common operational problems.
- Conduct preventive and predictive maintenance on pumps and valves.
- Assess performance metrics and optimize energy efficiency.
- Ensure compliance with safety standards and best practices.
- Apply industry standards and guidelines in pump and valve management.

Why Attend

Pumps and valves are critical to process reliability and operational efficiency. This course provides practical, hands-on knowledge and problem-solving skills that help participants reduce downtime, improve performance, and extend equipment life. Whether you are an operator, engineer, or maintenance professional, this training will enhance your technical expertise and confidence in managing fluid systems.

Target Audience

This course is suitable for:

- Mechanical, Process, and Maintenance Engineers
- Operations and Plant Managers
- Maintenance Supervisors and Technicians
- Process Equipment Operators
- Reliability and Asset Management Professionals
- Technical Leads responsible for fluid systems

Individual Benefits

- Gain hands-on knowledge of pump and valve technologies.
- Learn to troubleshoot and solve operational issues efficiently.
- Improve preventive and predictive maintenance skills.
- Enhance decision-making in equipment selection and operation.
- Increase professional competence and confidence in fluid system management.

Organizational Benefits

- Improve reliability and efficiency of pumps and valves.
- Reduce downtime, maintenance costs, and operational losses.
- Optimize energy usage and process performance.
- Ensure compliance with safety and industry standards.
- Build internal technical expertise in fluid handling systems.

Instructional Methodology

The training employs a practical, interactive approach:

- Instructor-led demonstrations of pumps and valves
- Hands-on workshops and operational exercises
- Real-world case studies and problem-solving sessions
- Step-by-step guidance on maintenance, troubleshooting, and performance optimization
- Continuous feedback, Q&A sessions, and practical exercises

Course Outline

- Module 1: Introduction to Pumps and Valves – Types, Applications, and Principles
- Module 2: Pump and Valve Selection for Industrial Processes
- Module 3: Installation, Commissioning, and Start-Up Procedures
- Module 4: Operational Principles and Performance Metrics
- Module 5: Troubleshooting Common Problems in Pumps and Valves
- Module 6: Preventive and Predictive Maintenance Techniques
- Module 7: Energy Efficiency and Performance Optimization
- Module 8: Safety Standards, Codes, and Compliance
- Module 9: Case Studies – Real-World Pump and Valve Issues
- Module 10: Practical Exercises – Hands-On Pump and Valve Maintenance and Troubleshooting

Certification

Upon successful completion, participants will receive a Certificate in Practical Pump and Valve Technology, recognizing their expertise in operating, maintaining, troubleshooting, and optimizing industrial pumps and valves for safe, reliable, and efficient process operations.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation’s unique goals.

In-House / Customized Training

Interested in running this course for your team?

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