XCELERATE TRAINING INSTITUTE

your learning & development partner

MECHANICAL ENGINEERING

Pump and Valve Engineering Training Course

DURATION	LANGUAGE	FORMAT
5 days	English	Classroom / Online

Upcoming dates

Dates	Venue	Format	Fee
22 – 26 Feb 2027	Live online	Online (live)	€1,200
2 – 6 Aug 2027	Live online	Online (live)	€1,200
6 – 10 Sep 2027	Boston	Classroom	€5,500

Register or ask a question

Online: staging.x8ti.com/course/pump-and-valve-engineering-training-course/

+491631686678 · info@x8ti.com

Pump and Valve Engineering Training Course

Introduction

Introduction

Pump and valve engineers are responsible for determining and analyzing details of pump and valve design, maintenance activities and study of pump and valves supply and installation and maintenance. Any plant uses pump and valves for pumping and controlling of fluid or liquid. It has devices used such as pump operated by using a prime move similar to electric motor and valves used for controlling the flow of fluid. These pumps are of different varieties and types being used along with the values.

This pump and valves training course will make you competent to understand the application and types of pumps and valves. This will focus on how the pump and valve operates and functions. It will also tell you how to make a pump and valves work efficiently. The maintenance and operation of pump to determine excessive consumption and losses in the system, will be explained.

Why pump and valve engineering?

The methods adopted to practice maintenance of pumps and make efficient processes is an essential requisite for mechanical engineers. This training course will look at piping and flanges used in the pump and piping system. The program covers all studies related to pump function, its system maintenance management and operation.

In this Xcelerate Training Institute course, you will be provided with opportunities to enhance your skills, capacity and help organizations to make pumps and valves operate more efficiently.

Learning Objectives

- Creating an understanding of all aspects of pumps and valves
- To provide knowledge and skills to operate the pumps
- To provide an idea on various important aspects of pumps and valve
- Perform detailed knowledge of pumping system
- The ways and analysis of system parameters of pumps
- To identify ways of operation of valves
- The ability and potential to use a reliable pumping system
- The required understanding and information of guidelines with legislations and regulations
- Creating enhanced analytical skills to select a suitable pump for a given application
- Priming and self-priming and VFD drive for pump

Training Methodology

All courses at Xcelerate Training Institute can be tailor-made to meet the needs of our training audience. In being proactive, our training content reviewed to check for exactness and relevance. The training is delivered by an experienced professional from the relevant domain. Two-way participation in the program is encouraged through group activities, projects, role-plays, etc. Kin esthetic learning and situational

examinations form a major part of the training course.

Benefit for Your Organization

- Understanding of the types of pumps to be used for specific applications in the organization
- Regular training of other employees on pumps and valves concepts and methods
- Application of new and advanced technology for operation of pumps and valves
- Introduction of modern technology for efficient operation
- Maintenance and operation of pump and valves
- Knowledge of legislation and regulations of pumps and valves
- Knowledge of piping and flanges and their maintenance
- Types and maintenance of bearings in machines
- Types and safety of pressure vessels

Benefits for You

- Comprehensive understanding of all aspects of pumps and valves
- Study of various pump and valves devices and measures of performance
- Greater knowledge of new concepts and methods for pumps and valves
- Better understanding and information about required regulations and standards & measurements
- Enhanced analytical and strategic skills to interpret data and conclude pumping operation and valve operations
- Knowledge of pump & valve devices and methods

Target Audience

- Senior/middle and junior level employees of an organization
- Employees involved in the pump and valve-related activities
- Managers responsible for pump and valve and supply of liquids
- Maintenance and operations personnel in industry
- Quality and leaks checkers and valve & pump operators
- Any professional across any profile in any industry
- Any other professional interested in being trained as a pump and valve operator or manager

Course Outline:

Overview of pumps and valves

- Function and purpose of pumps
- Function and purpose of valves
- Utilization pumps and valves with application

Pumps

- Positive displacement pumps
- Rotary pumps
- Reciprocating pumps
- Gear and vane pump

- Maintenance and failure of pumps

Valves

- Types of valves
- Construction of valves
- The actuator used in valves
- Valve maintenance and repairs

Pressure vessel

- Type of pressure vessels and applications
- Separators and fillers
- Scrubbers and columns
- De-equators
- Maintenance and troubleshooting of pressure vessels

Bearing

- Bearing types
- Bearing loads and failures
- Maintenance of bearings
- Life assessment of bearing
- Bearing replacement

Seals used

- Types of Seals
- Seals used for bearing
- Seals used in piping
- Seal failures
- Maintenance and repairs of seal

Piping and flange

- Purpose of flanges and piping
- Material of piping
- Type Flanges used
- Gasket used in pumps and piping

Coupling and planned maintenance

- Types pump coupling
- Pump alignment and vibrations
- Life and predictive maintenance
- Syphon, priming and self-priming
- Types of pump prime movers

Copyright and intellectual property
This course, "Pump and Valve Engineering Training Course", is an original course by Xcelerate Training Institute. All materials, content and structure are the intellectual property of Xcelerate Training Institute. Reproduction, distribution or use of any part of this course without written consent is prohibited.

Registration Form

Pump and Valve Engineering Training Course

Preferred dates: ..... Venue or online: .....

Duration: 5 days Language: .....

Please complete and email this form to us, or register online. We confirm your place and send the invoice within one working day.

Delegate information

Full name (Mr / Ms / Dr / Eng): .....

Position: ..... Telephone / mobile: .....

Official email: ..... Personal email: .....

Company information

Company name: .....

Address: .....

City / country: ..... VAT / tax number: .....

Person responsible for training & development

Full name (Mr / Ms / Dr / Eng): .....

Position: ..... Telephone / mobile: .....

Email: .....

Payment

☐ Please invoice me ☐ Please invoice my company

Signature: ..... Date: .....

Call
+491631686678

Email this form
info@x8ti.com

Register online
Open the course page