

Course Overview:

The Training will introduce delegates to the different types of pumps and valves and their associated terminology. Centrifugal and positive-displacement pumps, packing, mechanical seals and sealing systems, bearings and couplings will all be discussed. Valves for isolation and valves for control will be addressed.

Course Objective:

- Have an understanding of the different types of pumps and their associated terminology
- Have an understanding of Centrifugal and positive displacement pumps, packing, mechanical seals and sealing systems, bearings and couplings
- Have an understanding of different parameters affecting the operation of valves
- Have the ability to select the right valve for the particular application and to perform the necessary calculation for valve sizing
- Have the ability to perform troubleshooting of systems involving valves

Course Outline:

Pumping Systems
Pump Types and Terminology
Pump Performance
Friction in Valves, Piping & Fittings
Cavitation in pumps and valves
Positive Displacement Pumps
Reciprocating Pumps
Reciprocating Pump Valves
Rotary Pumps – scroll and gear types
Failure Mechanisms – identification and monitoring
Centrifugal Pumps
Pump Components
Achieving Pump Reliability
Sealing Systems
Bearings – failure modes and how to extend life
Lubrication
Plain Bearings
Valves Technology
Types of Valves
Valves Troubleshooting & Maintenance

Who Should Attend:

- Technicians
- Supervisors
- Team Leaders

Training Language:

EN / AR

Training Methodology:

- Presentation & Slides
- Audio Visual Aids
- Interactive Discussion
- Participatory Exercise
- Action Learning
- Class Activities
- Case Studies
- Workshops
- Simulation