PUMPS & COMPRESSORS: OPERATION, TROUBLESHOOTING & CONTROL

5-Day Training Program

AIMS

- Be more familiar with the different types of pumps and compressors
- Be able to understand reasons behind choosing different types for different applications
- Be able to troubleshoot the problems and faults concerning these machines
- Be able to read and use the related international standards

BENEFITS

- Learns more about the problems and solutions for compressors and pumps
- Gain knowledge of parameters affecting pumps and compressors operation
- Learn methods of troubleshooting & controlling these machines

OBJECTIVES

- Upgrading the knowledge of problems and solutions for pumps and compressors
- Exercising examples of troubleshooting methods
- Highlight the importance of cavitation in pumps and stall in compressors
- Highlight the importance of seals and bearings on pumps and compressors availability

PROGRAM

Day One

PUMPS PERFORMANCE, AND OPERATION

- Pumping methods
- Range of operation
- Pumps performance curves
- Specific speed and specific diameter
- Design operating conditions
- Parameters affecting the pump performance

DAY TWO

PUMPS CONTROL AND SELECTION

- Pump curves and piping system curves
- Capacity control
- Pumps Specifications
- Parameters affecting the pump selections

DAY THREE

CENTRIFUGAL COMPRESSORS

- Compression Methods
- Positive displacement compressors

DAY FOUR

CENTRIFUGAL COMPRESSORS

- Performance curves
- Affinity laws
- Operation and control of centrifugal Compressors

DAY FIVE

TROUBLESHOOTING AND MAINTENANCE

- Principles of troubleshooting
- Statistics of more frequent troubles
- Mechanical seals
- Bearings
- Cavitation in pumps
- Surge in compressors
- Shaft deflection
- Off-design operating conditions