# COURSE OVERVIEW ME0122
# Valves, Safety Relief Valves, Strainers & Steam Traps

**Course Title**
Valves, Safety Relief Valves, Strainers & Steam Traps


**Course Date/Venue**
November 16-20, 2025/TBA Meeting Room, The H Hotel, Sheikh Zayed Road Trade Centre, Dubai, UAE



**Course Reference**
ME0122

**Course Duration/Credits**
Five days/3.0 CEUs/30 PDHs

**Course Description**

***This practical and highly-interactive course includes various practical sessions and exercises. Theory learnt will be applied using our state-of-the-art simulators.***

This course is designed to provide participants with a detailed and up-to-date overview of Valves, Relief Valves, Strainers and Steam Traps. Participants will gain a thorough understanding of the principles, applications, maintenance, and troubleshooting of these critical components in fluid and steam systems.

The course will cover the functions and difference among various types of valves covering gate valve, globe valve, plug valve, ball valve, check valve, needle valve, diaphragm valve and butterfly valve; the valve symbols and actuators; and the valve glossary and piping overview.

During this interactive course, participants will learn the safety relief valve types, functions and design features; the types of strainers comprising of temporary strainer, y-type strainer, mono-in-line strainer and duplex-strainer; the types of steam traps covering mechanical steam traps, thermostatic and fixed-orifice traps; the valve maintenance, preventive maintenance, start-up and overhauling; the valve leakage and proper installation, sizing and selection of valve; and the maximum allowable pressure drop.

## Course Objectives

Upon the successful completion of this course, each participant will be able to:-

- Apply and gain an in-depth knowledge on valves, safety relief valves, strainers and steam straps
- Discuss valves and its principal functions
- Distinguish the difference among various types of valves including gate valve, globe valve, plug valve, ball valve, check valve, needle valve, diaphragm valve and butterfly valve
- Illustrate valve symbols and actuators
- Review valve glossary and piping overview as well as safety relief valves, definitions, types, functions and design features
- Discuss numerous types of strainers including temporary strainer, y-type strainer, mono-in-line strainer and duplex-strainer as well as the types of steam traps including mechanical steam traps, thermostatic and fixed-orifice traps
- Employ valve maintenance, preventive maintenance, start-up and overhauling
- Identify valve leakage in all types and carryout proper installation, sizing and selection of valve
- Analyze maximum allowable pressure drop

## Exclusive Smart Training Kit - H-STK®


*Participants of this course will receive the exclusive "Haward Smart Training Kit" (**H-STK®**). The **H-STK®** consists of a comprehensive set of technical content which includes **electronic version** of the course materials conveniently saved in a **Tablet PC**.*

## Who Should Attend

This course provides an overview of all significant aspects and considerations of valves, safety relieve valves, strainers and stream straps for maintenance engineers, application engineers, inspection engineers, mechanical engineers, under-development engineers, electrical/electronics engineers, control systems and instrumentation engineers, production engineers, wellhead & drilling engineers and the new valve designers. Further, this course is essential for supervisors, foremen and other technical staff.

## Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

30% Lectures
20% Practical Workshops & Work Presentations
30% Hands-on Practical Exercises & Case Studies
20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

**Course Certificate(s)**

(1) Internationally recognized Competency Certificates will be issued to participants who completed a minimum of 80% of the total tuition hours and successfully passed the exam at the end of the course. Certificates are valid for 5 years.

**Recertification is FOC for a Lifetime.**

**Sample of Certificates**

The following are samples of the certificates that will be awarded to course participants:-

Haward Technology Middle East

Certifies that

Salem Al Nabhani

Has successfully completed a course on

Valves, Safety Relief Valves, Strainers & Steam Traps

and is hereby awarded 3.0 CEUs (Continuing Education Units) equivalent to 30 PDHs (Professional Development Hours)

| | |
|---|---|
| Dubai, Sep 16-20, 2018<br>Course Location & Date | CC7400/01/ME0122/DXB/20.09.18<br>Certificate Number |
| Sep 20, 2018<br>Certificate Issuance Date | Sep 20, 2021<br>Certificate Expiry Date |

Dr. Ahmed El Sayed
Course Instructor

ACTVET License No.
0588/2013

Ms. Marivel De Guzman
Academic Director

Certificate Accreditation
Please see overleaf

(2) Official Transcript of Records will be provided to the successful delegates with the equivalent number of ANSI/IACET accredited Continuing Education Units (CEUs) earned during the course.

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**Haward Technology Middle East**

Continuing Professional Development (HTME-CPD)

## CEU Official Transcript of Records

**TOR Issuance Date:** 20-Sep-18

**HTME No.** PAR10047

**Participant Name:** Salem Al Nabhani

| Program Ref. | Program Title | Program Date | No. of Contact Hours | CEU's |
|---|---|---|---|---|
| ME0122 | Valves, Safety Relief Valves, Strainers & Steam Traps | September 16-20, 2018 | 30 | 3.0 |

Total No. of CEU's Earned as of TOR Issuance Date **3.0**

**TRUE COPY**

Maricel De Guzman
Academic Director

Haward Technology has been approved as an Authorized Provider by the International Association for Continuing Education and Training (IACET), 1760 Old Meadow Road, Suite 500, McLean, VA 22102, USA. In obtaining this approval, Haward Technology has demonstrated that it complies with the ANSI/IACET 1-2013 Standard which is widely recognized as the standard of good practice internationally. As a result of their Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for programs that qualify under the ANSI/IACET 1-2013 Standard.

Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking Continuing Education Units (CEUs) in accordance with the rules & regulations of the International Association for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology is accredited by

P.O. Box 26070, Abu Dhabi, United Arab Emirates | Tel.: +971 2 3091 714 | Fax: +971 2 3091 716 | E-mail: info@haward.org | Website: www.haward.org

## Certificate Accreditations

Haward's certificates are accredited by the following international accreditation organizations: -

- British Accreditation Council (BAC)

  Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. Haward's certificates are internationally recognized and accredited by the British Accreditation Council (BAC). BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

- The International Accreditors for Continuing Education and Training (IACET - USA)

  Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

  Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units** (CEUs) in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

  Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.

## Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.

## Course Fee

**US$ 5,500** per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

**Course Instructor(s)**

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:

**Mr. Moayyad Sanori** is a **Senior Mechanical & Maintenance Engineer** with almost **30 years** of extensive experience within the , **Valve** Inspection & Testing, **Safety Relief Valves**, **Valves** Installation, Sizing & Selection, **Air Compressor & Nitrogen Generators**, **Centrifugal Pumps & Compressors** Overhauling, **Positive Displacement Pump**, **Heat Exchangers**, **Steam & Gas Turbine**, **Heat Recovery Steam Generator**, **Combined Cycle**, **Pipe Erection** Installation, **Welding** Operations, **Tank Pressure LPG**, **CNC Fabrication**, **Safety Valves**, **Distillation Columns**, **Gearbox**, **Pipe Fitting**, **Lathes**, **Milling**, **Diesel Engines**, **Boiler & Burners**, **Turbines & Motors**, **Root Cause Analysis** Techniques, **Rotating Equipment** Reliability Assurance, **Site Reliability Optimization Plan**, **Oil & Gas, Petrochemical** and **Refinery Industries**. His expertise widely covers in the areas of **Fire Protection & Life Safety** System Testing, **Sprinkler System** Inspection & Maintenance, **Standpipe & Hose** Systems, **Fire Pump** Maintenance, **Water Storage Tank** Inspection**Piping** Assessment, **Mechanical Pipe Fitting**, **Fire Pump** Inspection & Testing, **Fire Suppression** Design, **Fired Heaters & Exchangers**, **Process Plant** Operation, **Hydrocarbon Production** Operation, Monitoring & Maintaining **HSE Systems**, Emergency & Critical Situations Control, Integrated Process Systems Start-up, Shutdown, Monitoring & Control, **Process Plant** Equipment Isolation, **Mechanical Maintenance**, **Maintenance & Reliability** Management, **Preventive & Predictive** Maintenance, Machinery Failure Analysis (**RCFA**), **Condition Based Monitoring**, **Power Piping**, and **ASNT-NDT Inspection** Methods. He is currently the **General Maintenance Supervisor** of **Jable Oil Services** with collaboration of **Waha Oil Company** wherein he is responsible in supervising the maintenance and operation of pumps, compressors, gas turbines, steam turbines, pipe testing and training of new employees.

During Mr. Moayyad's career he has handled key positions as such **Mechanical Maintenance Manager**, **Mechanical Maintenance Supervisor**, **Pipe Testing Supervisor**, **Radiation Supervisor**, **NDT Supervisor**, **General Maintenance Supervisor**, **Piping Testing Engineer**, **NDT Technician**, **Mechanical & Pipe Fitting Instructor** and **Pump Maintenance Technician** of various international companies including **Jordan Petroleum Refinery Company**, **Saudi Aramco**, Rawabi Industrial Support Services, Experts Industrial Testing Company, Petra for Mechanical Testing Company and Al-Waei Metal Forming Establishment.

Mr. Moayyad has an **Associate Diploma** in **Mechanical Engineering**. Further, he is a **Certified Instructor/Trainer**, a **Certified ASNT-NDT Level II** in Radiography (**RT**), Magnetic Particle Testing (**MT**), **Liquid Penetrant Testing** (**PT**) and **Ultrasonic Thickness Testing** (**UTT**) and a **Certified Assessor** by **City & Guilds Level 3 Certificate in Assessing Vocational Achievement** under the **TAQA Qualification** (**Training**, **Assessment & Quality Assurance**). He has further delivered numerous trainings, courses, seminars, workshops and conferences internationally.

## Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

***Day 1:*** ***Sunday, 16th of November 2025***

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|---|---|
| *0730 – 0800* | *Registration & Coffee* |
| *0800 – 0815* | *Welcome & Introduction* |
| *0815 – 0830* | ***PRE-TEST*** |
| *0830 – 0930* | ***Introduction to Valves*** |
| *0930 – 0945* | *Break* |
| *0945 – 1100* | ***Principal Functions of Valves*** |
| *1100 – 1230* | ***Gate Valve*** |
| *1230 – 1245* | *Break* |
| *1245 – 1420* | ***Globe Valve*** |
| *1420 – 1430* | ***Recap*** |
| *1430* | *Lunch & End of Day One* |

***Day 2:*** ***Monday, 17th of November 2025***

| | |
|---|---|
| *0730 – 0930* | ***Plug Valve*** |
| *0930 – 0945* | *Break* |
| *0945 – 1100* | ***Ball Valve*** |
| *1100 – 1230* | ***Check Valve*** |
| *1230 – 1245* | *Break* |
| *1245 – 1420* | ***Needle Valve*** |
| *1420 – 1430* | ***Recap*** |
| *1430* | *Lunch & End of Day Two* |

***Day 3:*** ***Tuesday, 18th of November 2025***

| | |
|---|---|
| *0730 – 0930* | ***Diaphragm Valve*** |
| *0930 – 0945* | *Break* |
| *0945 – 1100* | ***Butterfly Valve*** |
| *1100 – 1230* | ***Valve Symbols*** |
| *1230– 1245* | *Break* |
| *1245 – 1420* | ***Valve Actuators*** |
| *1420 – 1430* | ***Recap*** |
| *1430* | *Lunch & End of Day Three* |

***Day 4:*** ***Wednesday, 19th of November 2025***

| | |
|---|---|
| *0730 – 0830* | ***Valve Glossary & Piping Overview*** |
| *0830 – 0930* | ***Safety Relief Valves***<br>*Definitions ● Types ● Functions ● Design Features* |
| *0930 – 0945* | *Break* |
| *0945 – 1100* | ***Types of Strainers***<br>*Temporary Strainer ● Y-Type Strainer ● Mono-in-Line Strainer ● Duplex Strainer* |

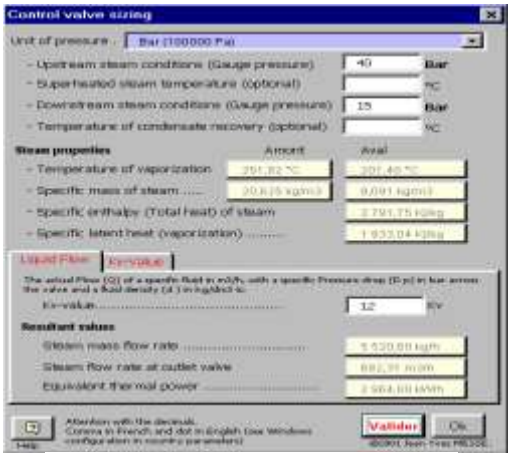
| | |
|---|---|
| *1100 – 1230* | ***Types of Steam Traps***<br>*Mechanical Steam Traps ● Thermostatic ● Fixed-Orifice* |
| *1230 – 1245* | *Break* |
| *1245 – 1420* | ***Valve Maintenance***<br>*Preventive Maintenance ● Prior to Start-up ● After Start-up ● Workshop Overhaul & Maintenance Tips* |
| *1420 – 1430* | ***Recap*** |
| *1430* | *Lunch & End of Day Four* |

***Day 5:*** ***Thursday, 20th of November 2025***

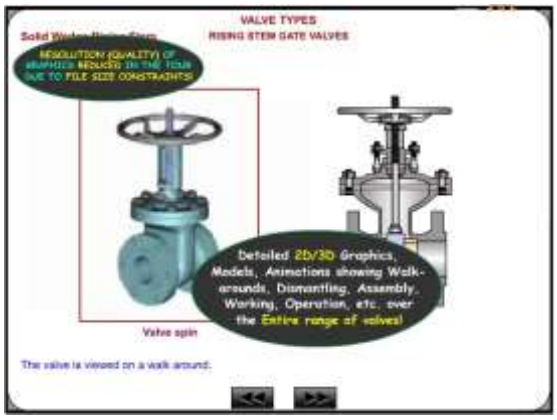
| | |
|---|---|
| *0730 – 0930* | ***Valve Leakage*** |
| *0930 – 0945* | *Break* |
| *0945 – 1100* | ***Valve Installation*** |
| *1100 – 1230* | ***Valve Sizing & Selection*** |
| *1230 – 1245* | *Break* |
| *1245 – 1300* | ***Maximum Allowable Pressure Drop*** |
| *1300 – 1315* | ***Course Conclusion*** |
| *1315 – 1415* | ***COMPETENCY EXAM*** |
| *1415 – 1430* | *Presentation of Course Certificates* |
| *1430* | *Lunch & End of Course* |

## Simulator (Hands-on Practical Sessions)

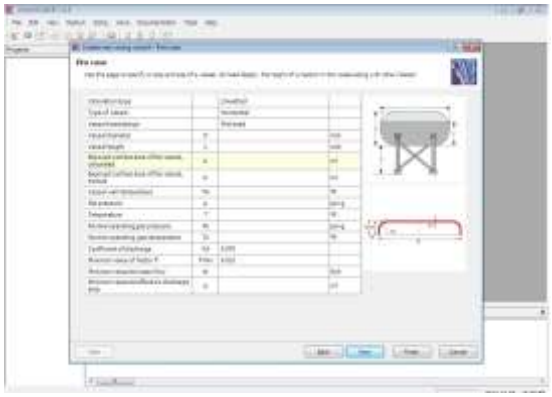
Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using the "Valve Sizing Software, Valve Software 3.0, Valvestar 7.2 Software, PRV2SIZE Software" simulator.




**Valve Sizing Software**




**Valve Software 3.0**



**Valvestar 7.2 Software**


**PRV²SIZE Software**

## Course Coordinator

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