

COURSE OVERVIEW FE0028-4D
API 598: Valve Inspection & Testing

Course Title

API 598: Valve Inspection & Testing

Course Reference

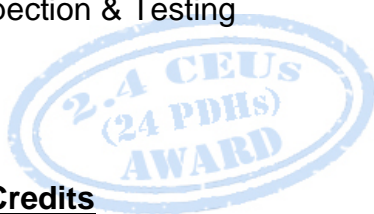
FE0028-4D

Course Duration/Credits

Four days/2.4 CEUs/24 PDHs

Course Date/Venue

Session(s)	Date	Venue
1	January 08-11, 2024	Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE
2	April 22-25, 2024	Al Aziziya Hall, The Proud Hotel Al Khobar, Al Khobar, KSA
3	July 08-11, 2024	Club B Meeting Room, Ramada Plaza by Wyndham Istanbul City Center, Istanbul, Turkey
4	October 07-10, 2024	Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE



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 participant with a detailed and up-to-date overview of valve inspection and testing in accordance with API 598. It covers the API requirements needed to perform inspection, examination, supplementary examinations and pressure testing requirements for resilient-seated, non-metallic-seated and metal-to-metal-seated valves of the gate, globe, plug, ball, check and butterfly types.



During this interactive course, participants will learn to inspect, examine and perform supplementary examination; carryout pressure testing, Identify test location, test equipment and test required; differentiate high-pressure closure test and high-pressure pneumatic test; identify test fluid; test pressures, test duration and test leakage; employ pressure testing procedures including backseat testing, shell testing, low-pressure and high-pressure closure testing, double block and bleed high-pressure closure testing; and explain in details the valve certification and retesting.

Course Objectives

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

- Apply and gain an-depth knowledge on valve inspection and testing in accordance with the international standard API 598
- Inspect, examine and perform supplementary examination covering inspection of valve manufacturer's plant, inspection notice and extent of inspection
- Carryout pressure testing as well as identify test location, test equipment and tests required
- Differentiate high-pressure closure test and high-pressure pneumatic test
- Describe test fluid, test pressures, test duration and test leakage
- Employ pressure testing procedures including backseat testing, shell testing, low-pressure and high-pressure closure testing, double block and bleed high-pressure closure testing
- Explain in details the valve certification and retesting comprising of certificate of compliance and retesting

Who Should Attend

This course provides a wide understanding and deeper appreciation for an overview of all significant aspects and considerations of valve inspection and testing in accordance with the international standard API 598 for process, piping, pipelines and pressure vessels engineers and supervisors. Further, it is suitable for inspection and QA & QC engineers, boilers and process plant equipment owners, maintenance staff who inspect and install pressure relief devices and engineers involved in plant turnaround and upgrade projects.

Exclusive Smart Training Kit - H-STK®



Participants of this course will receive the exclusive "Howard Smart Training Kit" (H-STK®). The H-STK® consists of a comprehensive set of technical content which includes **electronic version** of the course materials, sample video clips of the instructor's actual lectures & practical sessions during the course conveniently saved in a **Tablet PC**.

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)

Internationally recognized certificates will be issued to all participants of the course who completed a minimum of 80% of the total tuition hours.

Certificate Accreditations


Certificates are accredited by the following international accreditation organizations:-

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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 **2.4 CEUs** (Continuing Education Units) or **24 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.

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British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. 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.

Accommodation

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

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. Manuel Dalas MSc, BSc, is a **Senior Mechanical Engineer** with over **20 years** of industrial experience in **Oil, Gas, Refinery, Petrochemical, Power** and **Nuclear** industries. His wide expertise includes **Valve Inspection & Testing, Valve Troubleshooting & Maintenance, Valve Technology, Safety Design Valve, Valve Selection, Piping System & Process Equipment Layout, Process & Utility Piping, Pipe Support & Hangers, Pumps & Piping, Stress Analysis, Piping Layout, Machinery Failure Analysis, Maintenance, Planning, Scheduling & Work Control, Machinery Troubleshooting, Root Cause Analysis, Maintenance and Operation of Pressure Vessels, Piping Support, Piping Design, Carbon Steel & Alloy Piping Prefabrication, Carbon Steel & Alloy Piping Supports Prefabrication, Carbon Steel Heat Exchangers Fabrication, CS Vertical Columns/Pressure Vessels Fabrication, Steel Structures, Ironworks, Hydraulic System & Troubleshooting, Hydraulic Tools, Mechanical Alignment, Rotating & Static Equipment (Pumps, Valves, Boilers, Pressure Vessels, Tanks, Heat Exchangers, Bearings, Compressors, Diesel Engines, Pipelines, Motors, Turbines, Gears, Seals), Vibration Analysis, Construction Management, Building Structures and Electrical-Mechanical Equipments**. Currently, he is the **Technical Consultant** of the **Association of Local Authorities of Greater Thessaloniki** where he is in charge of the mechanical engineering services for piping, pressure vessels fabrications and ironwork.

During his career life, Mr. Dalas has gained his practical and field experience through his various significant positions and dedication as the **Technical Manager, Project Engineer, Safety Engineer, Deputy Officer, Instructor, Construction Manager, Construction Engineer, Consultant Engineer** and **Mechanical Engineer** for numerous multi-billion companies including the **Biological Recycling Unit** and the **Department of Supplies of Greece, Alpha Bank Group, EMKE S.A, ASTE LLC** and **Polytechnic College of Evosmos**.

Mr. Dalas has a **Master's degree in Energy System** from the **International Hellenic University, School of Science & Technology** and a **Bachelor's degree in Mechanical Engineering** from the **Mechanical Engineering Technical University of Greece** along with a **Diploma in Management & Production Engineering** from the **Technical University of Crete**. Further, he is a **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership and Management (ILM)**, a **Certified Project Manager Professional (PMI-PMP)**, a **Certified Instructor/Trainer**, a **Certified Energy Auditor for Buildings, Heating & Climate Systems**, a **Member** of the **Hellenic Valuation Institute** and the **Association of Greek Valuers** and a **Licensed Expert Valuer Consultant** of the **Ministry of Development and Competitiveness**. He has further delivered numerous trainings, courses, seminars, conferences and workshops internationally.

Course Fee

Dubai	US\$ 4,500 per Delegate + VAT . This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Al Khobar	US\$ 4,500 per Delegate + VAT . This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Istanbul	US\$ 5,000 per Delegate + VAT . This rate includes Participants Pack (Folder, Manual, Hand-outs, etc.), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Abu Dhabi	US\$ 4,500 per Delegate + VAT . This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course 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

0730 – 0800	<i>Registration & Coffee</i>
0800 – 0815	<i>Welcome & Introduction</i>
0815 – 0830	PRE-TEST
0830 – 0930	Introduction
0930 – 0945	<i>Break</i>
0945 – 1100	Inspection, Examination & Supplementary Examination <i>Inspection at the Valve Manufacturer's Plant</i>
1100 – 1200	Inspection, Examination & Supplementary Examination (cont'd) <i>Inspection Outside the Valve Manufacturer's Plant</i>
1200 – 1215	<i>Break</i>
1215 – 1420	Inspection, Examination & Supplementary Examination (cont'd) <i>Inspection Notice</i>
1420 – 1430	Recap
1430	<i>Lunch & End of Day One</i>

Day 2

0730 – 0900	Inspection, Examination & Supplementary Examination (cont'd) <i>Extent of Inspection</i>
0900 – 0915	<i>Break</i>
0915 – 1030	Inspection, Examination & Supplementary Examination (cont'd) <i>Examination</i>
1030 – 1200	Inspection, Examination & Supplementary Examination (cont'd) <i>Supplementary Examination</i>
1200 – 1215	<i>Break</i>
1215 – 1420	Pressure Tests <i>Test Location</i>
1420 – 1430	Recap
1430	<i>Lunch & End of Day Two</i>

Day 3

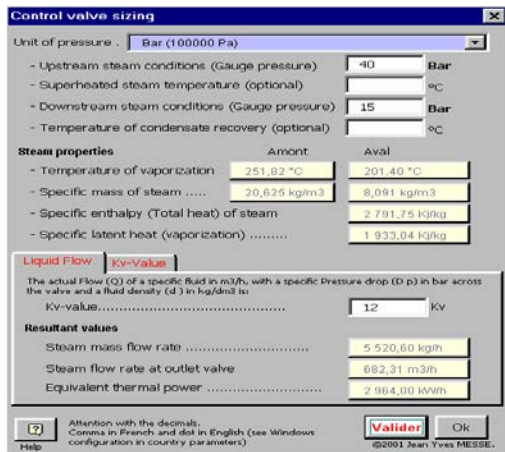
0730 – 0900	Pressure Tests (cont'd) Test Equipment
0900 – 0915	Break
0915 – 1030	Pressure Test (cont'd) Test Required
1030 – 1200	Pressure Test (cont'd) High Pressure Closure Test • High Pressure Pneumatic Shell Test
1200 – 1215	Break
1215 – 1420	Pressure Test (cont'd) Test Fluid • Test Pressures • Test Duration • Test Leakag
1420 – 1430	Recap
1430	Lunch & End of Day Three

Day 4

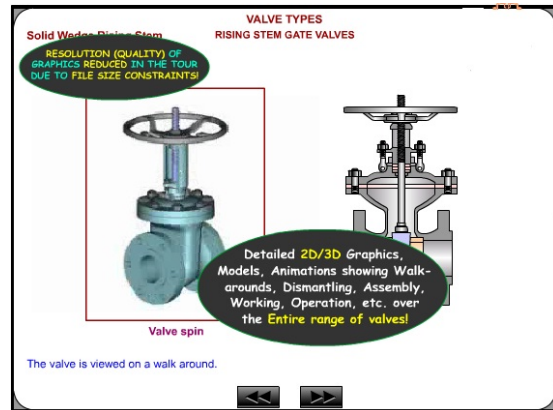
0730 – 0930	Pressure Test Procedures General • Backseat Test • Shell Test
0930 – 0945	Break
0945 – 1100	Pressure Test Procedures (cont'd) Low-Pressure Closure Test • High-Pressure Closure Test • Double Block & Bleed High-Pressure Closure Test
1100 – 1200	Valve Certification & Retesting Certification of Compliance
1200 – 1215	Break
1215 – 1345	Valve Certification & Retesting (cont'd) Retesting
1345 – 1400	Course Conclusion Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course
1400 – 1415	POST-TEST
1415 – 1430	Presentation of Course Certificates
1430	Lunch & End of Course

Simulators/Equipments (Hands-on Practical Sessions)

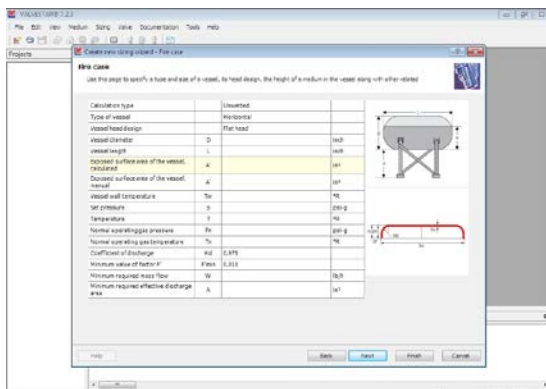
Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using our state-of-the-art simulators “Valve Sizing Software”, “Valve Software 3.0”, “Valvestar 7.2 Software” and “PRV²SIZE Software”.



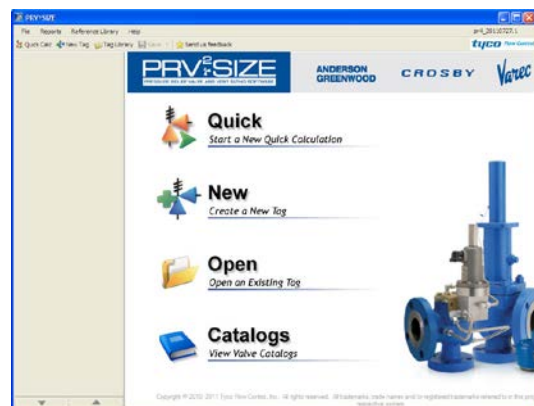
Valve Sizing Software



Valve Software 3.0



Valvestar 7.2 Software



PRV²SIZE Software

Course Coordinator

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