COURSE OVERVIEW FE0028

API 598: Valve Inspection & Testing

Course Title
API 598: Valve Inspection & Testing

Course Date/Venue
August 25-29, 2024/TBA Meeting Room, The Tower Plaza Hotel, Dubai, UAE

Course Reference
FE0028

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 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

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, sample video clips of the instructor's actual lectures & practical sessions during the course conveniently saved in a **Tablet PC**.*

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.

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.

Accommodation

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

Course Certificate(s)

Internationally recognized certificates will be issued to all participants of the course.

Certificate Accreditations

Certificates are accredited by the following international accreditation organizations:-

- 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.

- 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.

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. Steve Magalios, CEng, PGDip (on-going), MSc, BSc, is a **Senior Mechanical & Maintenance Engineer** with almost **40 years** of extensive **On-shore/Offshore** experience in the **Oil & Gas**, **Construction**, **Refinery** and **Petrochemical** industries. His expertise widely covers in the areas of **Preventive & Predictive** Maintenance, **Reliability Centered** Maintenance, **Applied Maintenance** Management, **Reliability** Modelling, **Reliability** Techniques, **Reliability Design** Techniques, Advanced **Root Causes** Analysis & Techniques, **Reliability** Management, **Pipeline Hot Tapping**, **Hot Tapping** Equipment, **Hot Tapping Operation**, **Boiler** Inspection & Maintenance, **Boiler** Systems, **Boiler** instrumentation & Controls, **Boiler** Start-up & Shutdown, **Boiler** Operation & Steam System Management, **Pipe Cuttings**, **Flange Bolt Tightening** Sequence, **Hydro Testing**, **Pump** Technology, Fundamentals of **Pumps**, **Pump** Selection & Installation, **Centrifugal Pumps & Troubleshooting**, **Reciprocating & Centrifugal Compressors**, **Screw Compressor**, **Compressor** Control & Protection, **Gas & Steam Turbines**, **Turbine** Operations, **Gas Turbine** Technology, **Valves**, **Process Control Valves**, **API 598: Valve Inspection and Testing**, **Bearings & Lubrication**, Advanced **Machinery Dynamics**, **Rubber Compounding**, **Elastomers**, **Thermoplastic**, **Industrial Rubber Products**, **Rubber** Manufacturing Systems, **Heat Transfer**, **Vulcanization Methods**, **Welding** Engineering, **Fabrication** & Inspection, **Welding** Techniques, Practical **Welding** Technology, **Welding** Inspection, **Welding & Machine Shop**, **Welding & Machining**, **Welding** Types & Applications, **Welding** Safety, **Welding** Defects Analysis, **TIG & Arc Welding**, **Shielded Metal Arc Welding**, **Gas Tungsten & Gas Metal Arc Welding**, **Welding** Procedure Specifications & Qualifications (WPS & WPQ), **Aluminium Welding**, Safe **Welding**, International **Welding Codes**, **Welding Procedure** Specifications, **Welding & Brazing**, **Welder** Performance Qualification, **Pipeline** Operation & Maintenance, **Pipeline** Systems, **Pipeline** Design & Construction, **Pipeline** Repair Methods, **Pipeline** Engineering, Pipeline Integrity Management System (**PIMS**). Currently, he is the **Chartered Professional Surveyor Engineer & Urban-Regional Planner** wherein he is deeply involved in providing exact data, measurements and determining properly boundaries. He is also responsible in preparing and maintaining sketches, maps, reports and legal description of surveys.

During his career, Mr. Magalios has gained his expertise and thorough practical experience through challenging positions such as a **Project Site Construction Manager**, **Supervision Head/Construction Manager**, **Construction Site Manager**, **Project Manager**, **Deputy PMS Manager**, **Head of the Public Project Inspection Field Team**, **Technical Consultant**, **Senior Consultant**, **Consultant/Lecturer**, **Construction Team Leader**, **Lead Pipeline Engineer**, **Project Construction Lead Supervising Engineer**, **Lead Site Engineer**, **Senior Site Engineer Lead Engineer**, **Senior Site Engineer**, **Mechanical Engineer**, **R.O.W. Coordinator**, **Site Representative**, **Supervision Head**, **Contractor**, Client Site Representative and Acting Client Site Representative for international Companies such as the Public Gas Corporation, Penspen International Limited, Eptista Servicios de Ingeneria S.I., J/V ILF Pantec TH. Papaioannou & Co. – Emenergy Engineering, J/V Karaylannis S.A. – Intracom Constructions S.A., Ergaz Ltd., Alkyonis 7, Palaeo Faliro, Piraeus, Elpet Valkaniki S.A., Asprofos S.A., J/V Depa S.A. just to name a few.

Mr. Magalios is a **Registered Chartered Engineer** and has **Master** and **Bachelor** degrees in **Surveying Engineering** from the **University of New Brunswick**, **Canada** and the **National Technical University of Athens**, **Greece**, respectively. Further, he is currently enrolled for **Post-graduate** in **Quality Assurance** from the **Hellenic Open University**, **Greece**. He has further obtained a Level 4B Certificates in Project Management from the National & Kapodistrian University of Athens, Greece and Environmental Auditing from the Environmental Auditors Registration Association (EARA). Moreover, he is a **Certified Instructor/Trainer**, a **Chartered Engineer** of Technical Chamber of Greece and has delivered numerous trainings, workshops, seminars, courses and conferences internationally.

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 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, 25th of August 2024***

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

Day 2: ***Monday, 26th of August 2024***

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

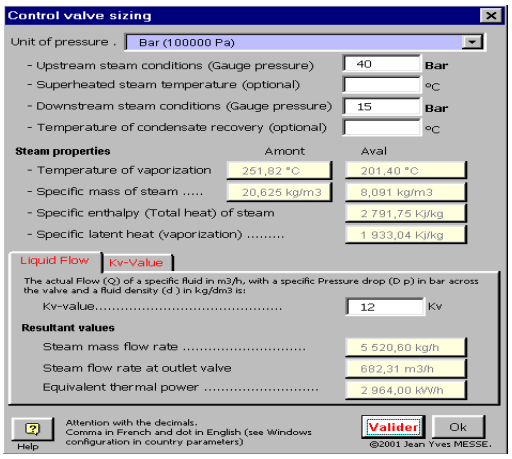
Day 3:	Tuesday, 27th of August 2024
0730 – 0900	***Pressure Tests (cont'd)*** *Test Equipment*
0900 – 0915	*Break*
0915 – 1030	***Pressure Test (cont'd)*** *Test Required*
1030 – 1200	***Pressure Test (cont'd)*** *High Pressure Closure Test*
1200 – 1215	*Break*
1215 – 1420	***Pressure Test (cont'd)*** *High Pressure Pneumatic Shell Test*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Three*

Day 4:	Wednesday, 28th of August 2024
0730 – 0900	***Pressure Test (cont'd)*** *Test Fluid*
0900 – 0915	*Break*
0915 – 1030	***Pressure Test (cont'd)*** *Test Pressures*
1030 – 1200	***Pressure Test (cont'd)*** *Test Duration*
1200 – 1215	*Break*
1215 – 1420	***Pressure Test (cont'd)*** *Test Leakage*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Four*

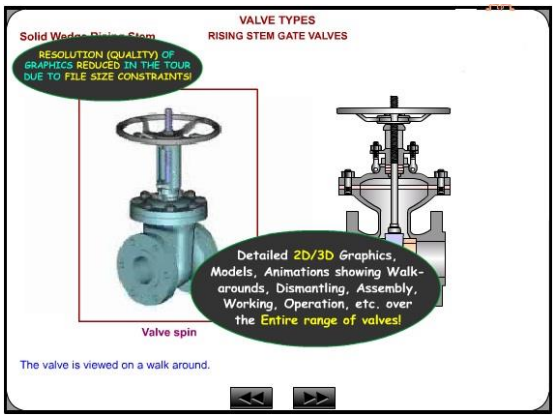
Day 5:	Thursday, 29th of August 2024
0730 – 0930	***Pressure Test Procedures*** *General ● Backseat Test ● Shell Test*
0930 – 0945	*Break*
0945 – 1100	***Pressure Test Procedures (cont'd)*** *Low-Pressure Closure Test ● High-Pressure Closure Test ● Double Block & Bleed High-Pressure Closure Test*
1100 – 1200	***Valve Certification & Retesting*** *Certification of Compliance*
1200 – 1215	*Break*
1215 – 1345	***Valve Certification & Retesting (cont'd)*** *Retesting*
1345 – 1400	***Course Conclusion***
1400 – 1415	***POST-TEST***
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & End of Course*

Simulators/Equipments (Hands-on Practical Sessions)

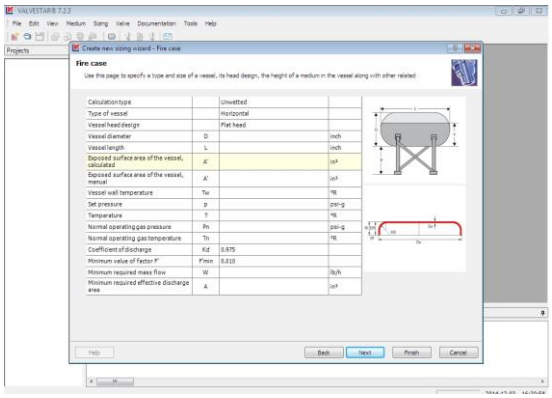
Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using our state-of-the-art simulators "Valve Sizing Software", "Valve Software 3.0", "Valvestar 7.2 Software" and "PRV2SIZE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



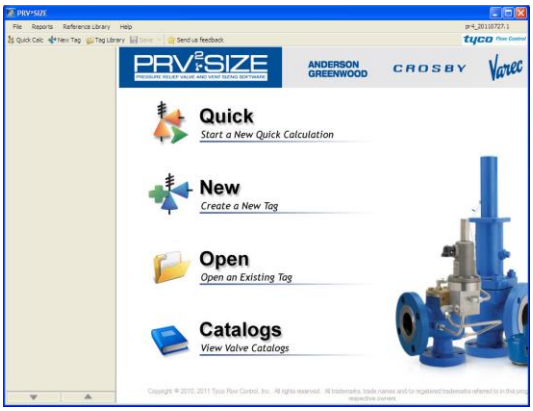
Valve Sizing Software



Valve Software 3.0



Valvestar 7.2 Software



PRV²SIZE Software

Course Coordinator

Mari Nakintu, Tel: +971 2 30 91 714, Email: mari1@haward.org