



COURSE OVERVIEW FE0029

API 576: Inspection of Pressure-Relieving Devices

Course Title

API 576: Inspection of Pressure-Relieving Devices

Course Reference

FE0029

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs



Course Date/Venue

Session(s)	Date	Venue
1	January 12-16, 2025	Oryx Meeting Room, Double Tree by Hilton Al Saad, Doha, Qatar
2	April 13-17, 2025	Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE
3	July 07-11, 2025	Ajman Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE
4	October 12-16, 2025	Al Khobar Meeting Room, Hilton Garden Inn, Al Khobar, KSA

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 delegates with a detailed and up-to-date overview of pressure-relieving devices inspection in accordance with API 576. It covers the recommended practice that describes the inspection and repair practices for automatic pressure-relieving devices commonly used in the oil and petrochemical industries. As a guide to the inspection and repair of these devices in the user's plant, it is intended to ensure their proper performance.



Further, the course will also discuss the dimensional characteristics of pressure-relief valves; the operational characteristics of system and device pressures; the pressure-relief devices; and the causes of improper performance of pressure relieving devices in corrosion, damaged seating surfaces, failed spring, improper setting and adjustment.



During this interactive course, participants will be able to describe the plugging and sticking, misapplication of materials, improper location, history or identification and rough handling; the improper differential between operating and set pressures, improper discharge piping test procedures and improper handling, installation and selection of rupture disks; the inspection and testing of pressure relieving devices; the shop inspection and overhauling, visual on-stream inspection, inspection frequency and time of inspection; and the records and reports, its objectives, responsibilities, sample records and report systems.



Course Objectives

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

- Inspect pressure relieving devices in accordance with the international standard API 576
- Recognize the dimensional characteristics of pressure-relief valves as well as the operational characteristics of system and device pressures
- Discuss pressure-relief devices including pressure-relief valve, safety valve, relief valve, safety-relief valve, conventional and balanced safety-relief valve, pilot operated pressure relief valve, pressure and vacuum vent valve and rupture disk device
- Analyze the causes of improper performance of pressure relieving devices in corrosion, damaged seating surfaces, failed spring, improper setting and adjustment
- Describe plugging and sticking, misapplication of materials, improper location, history or identification and rough handling
- Determine improper differential between operating and set pressures, improper discharge piping test procedures and improper handling, installation and selection of rupture disks
- Inspect and test pressure relieving devices in a professional manner
- Carryout shop inspection and overhauling, visual on-stream inspection, inspection frequency and time of inspection
- Review the records and reports and discuss its objectives, responsibilities, sample records and report systems

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 inspection of pressure relieving devices in accordance with the international standard API 576 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.

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 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 **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.

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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.





Course Instructor

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



Mr. Den Bazley, PE, BSc, is a **Senior Piping & Pipeline Engineer** with over **25 years** of industrial experience within **Oil, Gas, Petrochemical** and **Power** industries. His specialization widely covers **ASME B31 Piping & Pipeline Design, Construction, Operation, Inspection, Pigging, Maintenance, Repair & Integrity Assessment, Process Equipment, Maintenance Management, Reliability Management, Reliability Centred Maintenance (RCM), Total Plant Maintenance (TPM) and Reliability-Availability-Maintainability (RAM), Engineering Drawings, Codes & Standards, P&ID Reading, Interpretation & Developing**. His experience covers **Design, Construction and Maintenance of Storage Tank, Hydraulic Control Valves, Rotating and Static Equipment** including **Safety Relief Valves, Boilers, Pressure Vessels, Tanks, Heat Exchangers, Bearings, Compressors, Pumps, Pipelines, Motors, Turbines, Gears, Lubrication Technology and Mechanical Seals**. Further, he has experience in **Waste Water Treatment, Water Treatment, Welding, NDT, Vehicle Fleet and Budgeting & Cost Control**. He is well-versed in **CMMS** and various International Standards including **ISO 14001**.

During his career life, Mr. Bazley has gained his practical and field experience through his various significant positions and dedication as the **General Manager, Branch Manager, Refinery Chairman, Engineering Manager, Maintenance Engineer, Construction Engineer, Project Engineer, Mechanical Engineer, Associate Engineer, Oil Process Engineer, Mechanical Services Superintendent, Quality Coordinator, Planning Coordinator, Consultant/Instructor, Lecturer/Trainer and Public Relations Officer** for numerous international companies like **ESSO, FFS Refinery, Dorbyl Heavy Engineering (VECOR), Vandenbergh Foods (Unilever), Engen Petroleum, Royle Trust and Pepsi-Cola**.

Mr. Bazley is a **Registered Professional Engineer** and has a **Bachelor** degree in **Mechanical Engineering**. Further, he is a **Certified Engineer** (Government Certificate of Competency GCC Mechanical Pretoria), a **Certified Instructor/Trainer**, a **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership and Management (ILM)**, an active member of the **Institute of Mechanical Engineers (IMechE)** and has delivered numerous trainings, courses, seminars and workshops 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 Fee

Doha	US\$ 6,000 per Delegate. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Dubai	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.
Abu Dhabi	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.
Al Khobar	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 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 – 1000	Introduction <i>Dimensional Characteristics of Pressure-Relief Valves • Operational Characteristics (System Pressures, Device Pressures)</i>
1000 – 1015	<i>Break</i>
1015 – 1130	Pressure-Relieving Devices <i>Pressure-relief Valve • Safety Valve • Relief Valve</i>
1130 – 1230	Pressure-Relieving Devices (cont'd) <i>Safety- relief Valve • Conventional Safety- relief Valve • Balanced Safety- relief Valve</i>
1230 – 1245	<i>Break</i>
1245 – 1420	Pressure-Relieving Devices (cont'd) <i>Pilot-Operated Pressure-relief Valve • Pressure-and/or Vacuum-vent Valve • Rupture Disk Device</i>
1420 – 1430	Recap
1430	<i>Lunch & End of Day One</i>

Day 2

0730 – 1000	Causes of Improper Performance <i>Corrosion • Damage Seating Surfaces</i>
1000 – 1015	<i>Break</i>
1015 – 1130	Causes of Improper Performance (cont'd) <i>Failed Spring • Improper Setting & Adjustment</i>
1130 – 1230	Causes of Improper Performance (cont'd) <i>Plugging & Sticking</i>
1230 – 1245	<i>Break</i>





1245 – 1420	Causes of Improper Performance (cont'd) <i>Misapplication of Materials</i>
1420 – 1430	Recap
1430	<i>Lunch & End of Day Two</i>

Day 3

0730 – 1000	Causes of Improper Performance (cont'd) <i>Improper Location, History or Identification</i>
1000 – 1015	<i>Break</i>
1015 – 1130	Causes of Improper Performance (cont'd) <i>Rough Handling • Improper Differential between Operating & Set Pressures</i>
1130 – 1230	Causes of Improper Performance (cont'd) <i>Improper Discharger Piping Test Procedures</i>
1230 – 1245	<i>Break</i>
1245 – 1420	Causes of Improper Performance (cont'd) <i>Improper Handling, Installation & Selection of Rupture Disks</i>
1420 – 1430	Recap
1430	<i>Lunch & End of Day Three</i>

Day 4

0730 – 1000	Inspection & Testing <i>Reasons for Inspection & Testing</i>
1000 – 1015	<i>Break</i>
1015 – 1130	Inspection & Testing (cont'd) <i>Shop Inspection/Overhaul</i>
1130 – 1230	Inspection & Testing (cont'd) <i>Visual On-stream Inspection</i>
1230 – 1245	<i>Break</i>
1245 – 1420	Inspection & Testing (cont'd) <i>Inspection Frequency • Time of Inspection</i>
1420 – 1430	Recap
1430	<i>Lunch & End of Day Four</i>

Day 5

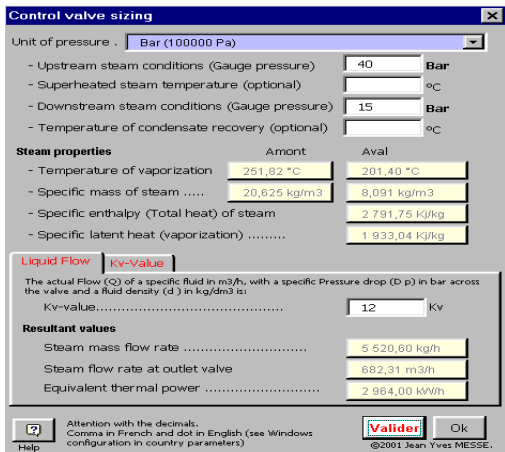
0730 – 1000	Records & Reports <i>Objective</i>
1000 – 1015	<i>Break</i>
1015 – 1130	Records & Reports (cont'd) <i>The Need to Keep Records</i>
1130 – 1230	Records & Reports (cont'd) <i>Responsibilities</i>
1230 – 1245	<i>Break</i>
1245 – 1345	Records & Reports (cont'd) <i>Sample Record & Report System</i>
1345 – 1400	Course Conclusion
1400 – 1415	POST-TEST
1415 – 1430	<i>Presentation of Course Certificates</i>
1430	<i>Lunch & End of Course</i>



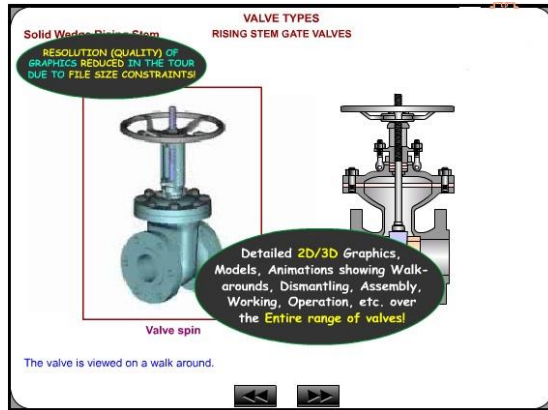


Simulator (Hands-on Practical Sessions)

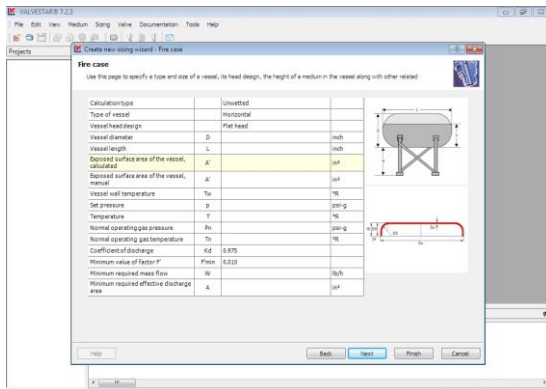
Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using our state-of-the-art “Valve Sizing Software”, “Valve Software 3.0”, “Valvestar 7.2 Software” and “PRV²SIZE Software” simulators.



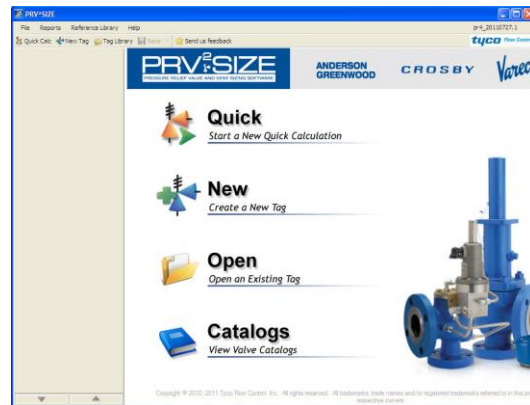
Valve Sizing Software



Valve Software 3.0



Valvestar 7.2 Software



PRV²SIZE Software

Course Coordinator

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