COURSE OVERVIEW PE0908(KP4)

Product Storage, Loading & Transport (Products)- Basic

Course Title

Product Storage, Loading & Transport (Products)- Basic

Course Date/Venue

Session 1: May 19-23, 2025/Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE
Session 2: October 05-09, 2025/Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE

Course Reference

PE908(KP4)

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs

Course Description

This hands-on, 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 cover the fundamentals of pipeline network operations including the location of all collection and distribution networks within the company. It addresses the many operation problems that face the field operations staff. It provides an understanding of flow phenomena that can help the participants avoiding problems such as hydrate formation, pressure (surge) waves or high viscosity liquid flow failure. It will address several critical problems in achieving pipeline flow assurance.

The course covers the fundamentals of pipeline network operations; the location of all collection and distribution networks within the company; the network layout and philosophy; the various types of networks in KOC covering the LP rich gas network, HP rich gas network, condensate, HP lean gas/fuel and LP lean gas/fuel; the heavy fuel oil (HFO), gas oil network and crude oil supplied to MEW; the type of valves that include MOV, GOV and AOV as well as the types of drip barrels and valves troubleshooting; and the basics of network operations covering isolation, purge, de-pressurize and pressurize.

During the interactive course, participants will learn the manual network operation and control; implement the guidelines for gas gathering lines; apply sludge catcher operations, pre/post start up procedures, purge in/purge out procedures and gas utilization options and techniques; identify the pipelines and its operational needs and the gas fluid transport properties; recognize flaring and the need to flare including the overprotection devices and the different types of flares and applications; operate, maintain and monitor flare; and conduct flare safety and flaring control.

Course Objectives

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

- Apply and gain an in-depth knowledge on transportation and distribution foundations
- Learn the fundamentals of pipeline network operations
- Learn the location of all collection and distribution networks within the company
- Discuss the network layout and philosophy
- Identify the various types of networks in the company covering LP rich gas network, HP rich gas network, condensate, HP lean gas/fuel and LP lean gas/fuel
- Explain heavy fuel oil (HFO), gas oil network and crude oil supplied to MEW
- Recognize the types of valves that include MOV, GOV and AOV including the types of drip barrels and apply valves troubleshooting
- Identify the basics of network operations covering isolation, purge, de-pressurize and pressurize
- Carryout manual network operation and control and implement the guidelines for the definition of gas gathering lines
- Employ sludge catcher operations, pre/post start up procedures, purge in/purge out procedures and gas utilization options and techniques
- Describe pipelines and its operational needs and discuss the gas fluid transport properties
- Recognize flaring and the need to flare, as well as monitor the overprotection devices and the different types and applications of flares
- Operate, maintain and monitor flare and conduct flare safety and flaring control

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 the significant aspects and considerations of transportation and distribution foundations for those who are involved in the operation and problem solving of pipeline systems in oil and gas fields. This includes operators II.

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:

- 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.

- 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.

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. Mervyn Frampton is a **Senior Process Engineer** with over **30 years** of industrial experience within the **Oil & Gas**, **Refinery**, **Petrochemical** and **Utilities** industries. His expertise lies extensively in the areas of **Distillation Column** Operation & Control, **Oil Movement** Storage & Troubleshooting, **Process Equipment** Design, Applied **Process Engineering** Elements, **Process Plant** Optimization, **Revamping & Debottlenecking**, **Process Plant** Troubleshooting & Engineering Problem Solving, **Process Plant** Monitoring, **Catalyst** Selection & Production Optimization, Operations Abnormalities & Plant Upset, **Process Plant** Start-up & Commissioning, **Clean Fuel** Technology & Standards, Flare, Blowdown & Pressure Relief Systems, **Oil & Gas Field Commissioning** Techniques, **Pressure Vessel** Operation, **Gas Processing**, **Chemical** Engineering, **Process Reactors** Start-Up & Shutdown, **Gasoline Blending** for Refineries, **Urea Manufacturing** Process Technology, Continuous Catalytic Reformer (**CCR**), **De-Sulfurization** Technology, Advanced Operational & Troubleshooting Skills, Principles of Operations Planning, **Rotating Equipment** Maintenance & Troubleshooting, **Hazardous Waste Management & Pollution Prevention**, **Heat Exchangers & Fired Heaters** Operation & Troubleshooting, **Energy Conservation** Skills, **Catalyst Technology**, **Refinery & Process Industry**, **Chemical Analysis**, **Process Plant**, **Commissioning & Start-Up**, **Alkylation**, **Hydrogenation**, **Dehydrogenation**, **Isomerization**, **Hydrocracking & De-Alkylation**, **Fluidized Catalytic Cracking**, **Catalytic Hydrodesulphuriser**, **Kerosene Hydrotreater**, **Thermal Cracker**, **Catalytic Reforming**, **Polymerization**, **Polyethylene**, **Polypropylene**, Pilot Water Treatment Plant, **Gas Cooling**, **Cooling Water Systems**, Effluent Systems, Material Handling Systems, **Gasifier**, **Gasification**, Coal Feeder System, **Sulphur Extraction Plant**, **Crude Distillation Unit**, **Acid Plant Revamp** and **Crude Pumping**. Further, he is also well-versed in HSE Leadership, Project and Programme Management, Project Coordination, Project Cost & Schedule Monitoring, Control & Analysis, Team Building, Relationship Management, Quality Management, Performance Reporting, Project Change Control, Commercial Awareness and Risk Management.

During his career life, Mr. Frampton held significant positions as the **Site Engineering Manager**, **Senior Project Manager**, **Project Engineering Manager**, **Construction Manager**, **Site Manager**, **Area Manager**, **Procurement Manager**, **Factory Manager**, **Technical Services Manager**, **Senior Project Engineer**, **Project Engineer**, **Assistant Project Manager**, **Handover Coordinator** and **Engineering Coordinator** from various international companies such as the **Fluor Daniel**, **KBR** South Africa, **ESKOM**, MEGAWATT PARK, CHEMEPIC, PDPS, CAKASA, **Worley Parsons**, Lurgi South Africa, **Sasol**, **Foster Wheeler**, **Bosch** & **Associates**, **BCG** Engineering Contractors, Fina Refinery, Sapref Refinery, Secunda Engine Refinery just to name a few.

Mr. Frampton has a **Bachelor degree** in **Industrial Chemistry** from **The City University** in **London**. Further, he is a **Certified Instructor/Trainer**, a **Certified Internal Verifier/Trainer/Assessor** by the **Institute of Leadership & Management** (**ILM**) and has delivered numerous trainings, courses, workshops, conferences and seminars internationally.

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.

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.

Accommodation

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

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	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	***PRE-TEST***
0830 – 0930	***Network Fundamentals & Operation***
0930 – 0945	*Break*
0945 – 1100	***Network Layout & Philosophy***
1100 – 1230	***Types Networks in KOC: LP Rich Gas Network, HO Rich Gas Network, Condensate, HP Lean Gas/Fuel, LP Lean Gas/Fuel***
1230 – 1245	*Break*
1245 – 1420	***(HFO) Heavy Fuel Oil, Gas Oil Network, (Crude Oil Supplied to MEW)***
1420 -1430	***Recap***
1430	*Lunch & End of Day One*

Day 2

0730 – 0930	***Types of Valves (MOV, GOV, AOV), Types of Drip Barrels & Troubleshooting of Valves***
0930 – 0945	*Break*
0945 – 1100	***Basics of Network Operations (Isolation, Purge, De-Pressurize & Pressurize)***
1100 – 1230	***Manual Network Operation & Control***

1230 – 1245	Break
1245 – 1420	**Guidelines for the Definition of Gas Gathering Lines**
1420 - 1430	**Recap**
1430	Lunch & End of Day Two

Day 3

0730 – 0930	**Sludge Catcher Operations**
0930 – 0945	Break
0945 – 1100	**Pre/Post-Start Up Procedures**
1100 – 1230	**Purge In/Purge Out Procedures**
1230 – 1245	Break
1245 – 1420	**Gas Utilization Options & Techniques**
1420 - 1430	**Recap**
1430	Lunch & End of Day Three

Day 4

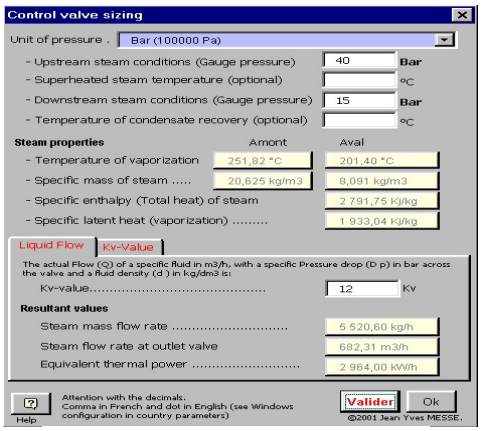
0730 – 0930	**Pipelines**
0930 – 0945	Break
0945 – 1045	**Basic Understanding of Pipelines & Operational Needs**
1045 - 1130	**Introduction to Oil & Gas Fluid Transport Properties**
1130 – 1230	**Flaring**
1230 – 1245	Break
1230 – 1420	**Definition & Need to Flare**
1420 - 1430	**Recap**
1430	Lunch & End of Day One

Day 3

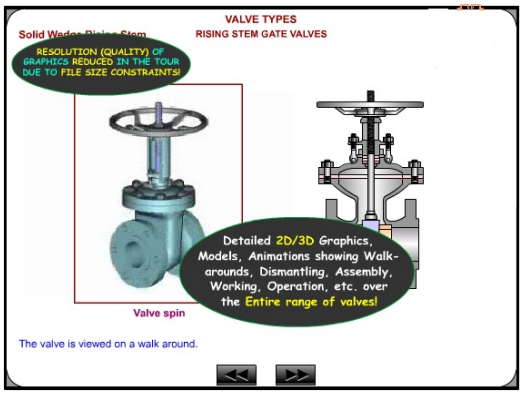
0730 – 0930	**Overprotection Devices**
0930 – 0945	Break
0945 – 1045	**Different Types & Applications of Flares**
1045 - 1130	**Flare Operation, Maintenance & Monitoring**
1130 – 1230	**Flare Safety**
1230 – 1245	Break
1245 – 1345	**Flaring Control**
1345 – 1400	**Course Conclusion**
1400 – 1415	**POST-TEST**
1415 – 1430	Presentation of Course Certificates
1430	Lunch & End of Course

Simulator (Hands-on Practical Sessions)

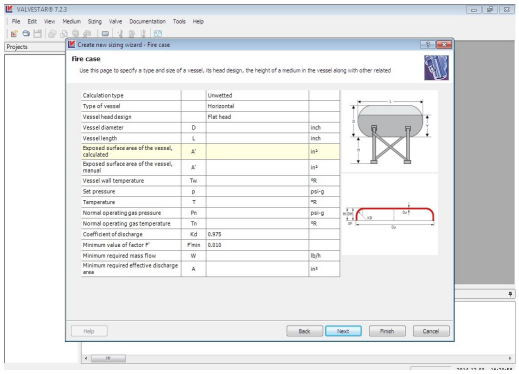
Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using one of our state-of-the-art simulators "Valve Sizing Software", "Valve Software 3.0", "Valvestar 7.2 Software", "PRV²SIZE Software", "Gas Ultrasonic Meter (USM) Sizing Tool Software", "Liquid Turbine Meter and Control Valve Sizing Tool Software", "Liquid Ultrasonic Meter Sizing Tool Software", "Orifice Flow Calculator Software", "Centrifugal Pumps and Troubleshooting Guide 3.0", "SIM 3300 Centrifugal Compressor Simulator", "CBT on Compressors" and "HMI SCADA".



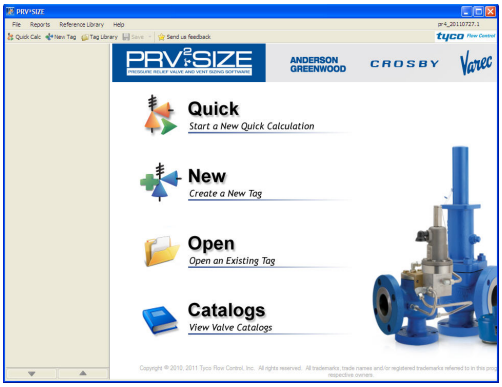
Valve Sizing Software



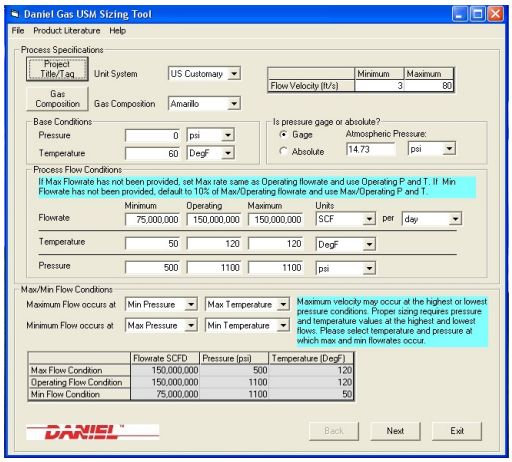
Valve Software 3.0



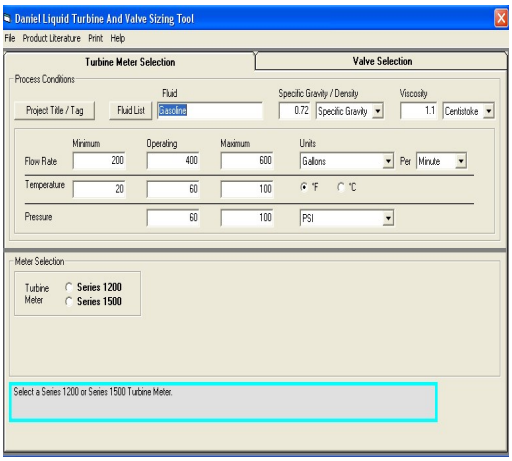
Valvestar 7.2 Software



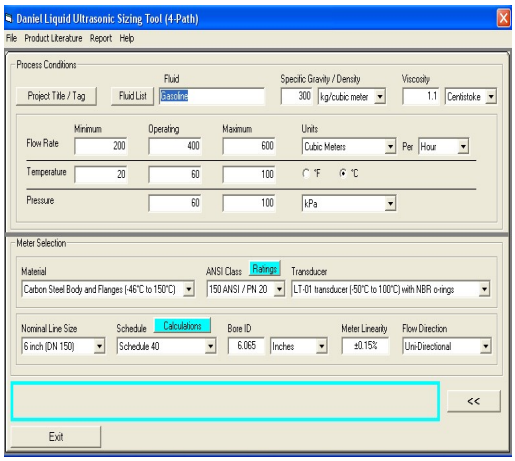
PRV²SIZE Software



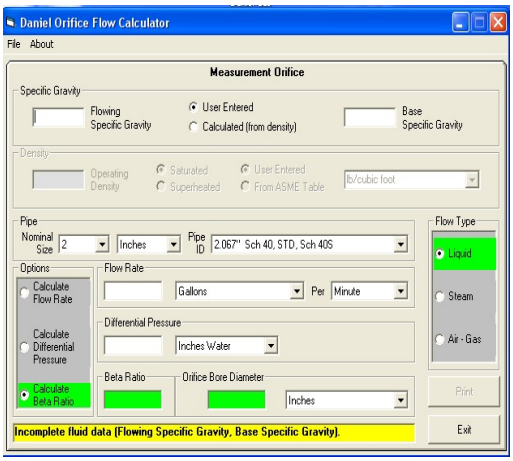
Gas Ultrasonic Meter (USM) Sizing Tool Software



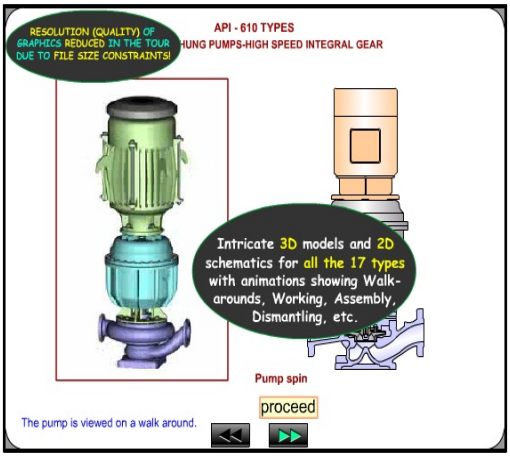
Liquid Turbine Meter and Control Valve Sizing Tool



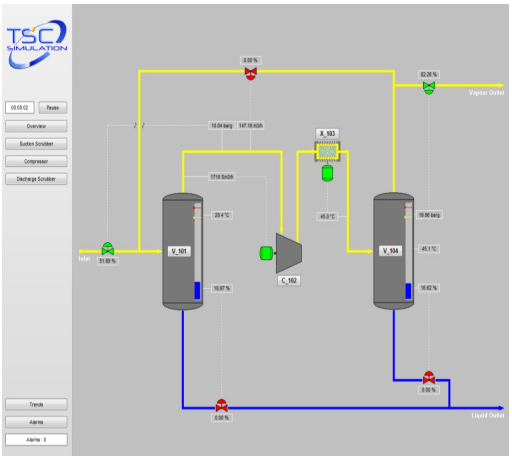
Liquid Ultrasonic Meter Sizing Tool Software



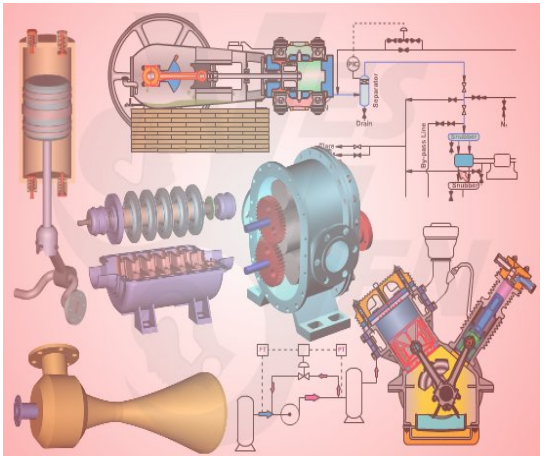
Orifice Flow Calculator Software



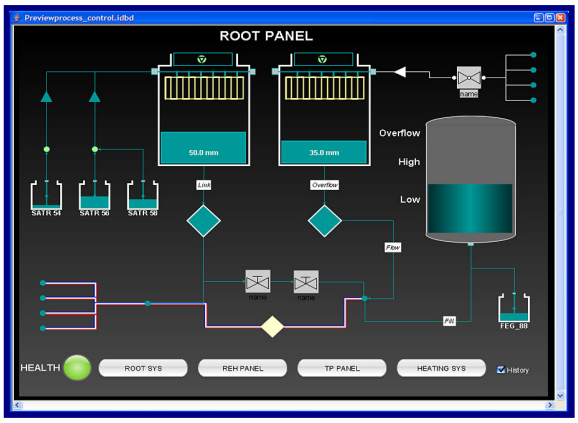
Centrifugal Pumps and Troubleshooting Guide 3.0



SIM 3300 Centrifugal Compressor Simulator



CBT on Compressors



HMI SCADA

Course Coordinator

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