COURSE OVERVIEW IE0337
Oil Volumes Data and Consistencies

Course Title
Oil Volumes Data and Consistencies

Course Date/Venue
Session 1: February 18-22, 2024/Kizkulesi, Crown Plaza Istanbul Asia Hotels & Convention Center, Istanbul, Turkey
Session 2: March 03-07, 2024/The Mouna Meeting Room, The H Dubai Hotel, Sheikh Zayed Rd - Trade Centre, Dubai, UAE

Course Reference
IE0337

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 relay simulators.

This course is designed to provide delegates with a detailed and up-to-date overview of oil volumes data and consistencies. It covers the oil properties, basic oil-field chemistry, physical properties, flash calculation and other oil properties; the types of royalty and custody transfer measurements; the potential petroleum loss and types of flow measurement devices; the proving systems; the calculation of liquid petroleum quantities; the guidelines for marine measurement; and the vessel experience factor (VEF).

At the completion of the course, participants will be able to employ the tank gauging, temperature determination and tank sampling; recognize the safety and health conditions; implement proper procedures before and during loading; inspect vessel and load port after loading; apply load port reconcilaition; perform various techniques before and during discharge; and demonstrate vessel and shore inspection after discharge including discharge port reconciliation.

Course Objectives

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

- Apply and gain an in-depth knowledge on oil volumes data and consistencies
- Discuss oil properties, basic oil-field chemistry, physical properties, flash calculation and other oil properties
- Identify the types of royalty and custody transfer measurements
- Recognize the potential petroleum loss and types of flow measurement devices
- Carryout proving systems and calculation of liquid petroleum quantities
- Review guidelines for marine measurement and discuss vessel experience factor (VEF)
- Employ tank gauging, temperature determination and tank sampling
- Recognize safety and health conditions and implement proper procedures before and during loading
- Inspect vessel and load port after loading as well as apply load port reconciliation
- Perform various techniques before and during discharge
- Demonstrate vessel and shore inspection after discharge including discharge port reconciliation

Who Should Attend

This course provides an overview of all practical aspects and considerations of oil volumes data and consistencies for instrumentation, inspection, control, custody, metering and process engineers and other technical staff. Further, the course is suitable for piping engineers, pipelines engineers, mechanical engineers, operations engineers, maintenance engineers, plant/field supervisors & foreman, supervisors, senior controllers and loss control coordinators.

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 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: -

- 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. Sydney Thoresson, PE, BSc, is a **Senior Electrical & Instrumentation Engineer** with over **40 years** of extensive experience within the **Petrochemical**, **Utilities**, **Oil**, **Gas** and **Power** industries. His specialization highly evolves in **Hazardous Area Classification**, **Intrinsic Safety**, **Liquid & Gas Flowmetering**, **Custody Measurement**, **Ultrasonic Flowmetering**, **Loss Control**, **Gas Measurement**, **Process Control Instrumentation**, **Compressor Control & Protection**, **Control Systems**, Programmable Logic Controllers (**PLC**), **SCADA**, Distributed Control Systems (**DCS**) especially in **Honeywell DCS**, **H&B DCS**, **Modicon, Siemens**, **Telemecanique**, **Wonderware** and **Adrioit**. Moreover, he has vast experience in the field of Safety Instrumented Systems (**SIS**), Safety Integrity Level (**SIL**), Emergency Shutdown (**ESD**), **Flowmetering & Custody Measurement**, **Multiphase Flowmetering**, **Measurement and Control**, **Mass Measuring System Batching** (**Philips**), Arc Furnace Automation-Ferro Alloys, Walking Beam Furnace, Blast Furnace, Billet Casting Station, Cement Kiln Automation, Factory Automation and Quality Assurance Accreditation (**ISO 9000** and **Standard BS 5750**).

During Mr. Thoresson's career life, he has gained his thorough and practical experience through various challenging positions such as a **Project Manager**, **Contracts Manager**, **Managing Director**, **Technical Director**, **Divisional Manager**, **Plant Automation Engineer**, **Senior Consulting Engineer**, **Senior Systems Engineer**, **Consulting Engineer**, **Service Engineer** and **Section Leader** from several international companies such as **Philips**, **FEDMIS**, **AEG**, **DAVY International**, **BOSCH** Instrumentation and Control, **Billiton**, **Endress/Hauser**, **Petronet**, **Iscor**, **Spoornet**, **Eskom** and **Afrox**.

Mr. Thoresson is a **Registered Professional Engineering Technologist** and has a **National Higher Diploma** (**NHD**) & a **National Diploma** in **Radio Engineering** from the **Witwatersrand Technikon**. Further, he is a **Certified Instructor/Trainer**, a **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership & Management** (**ILM**), an active member of the International Society of Automation (**ISA**) and the Society for Automation, Instrumentation, Measurement and Control (**SAIMC**).

Course Fee

Istanbul	**US$ 6,000** per Delegate + **VAT**. This rate includes Participants Pack (Folder, Manual, Hand-outs, etc.), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
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.

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 and Coffee*
0800 – 0815	*Welcome and Introduction*
0815 – 0830	***PRE-TEST***
0830 – 0930	***Oil Properties***
0930 – 0945	*Break*
0945 – 1100	***Basic Oil-Field Chemistry***
1100 – 1230	***Physical Properties***
1230 – 1245	*Break*
1245 – 1330	***Flash Calculations***
1330 – 1420	***Other Oil Properties***
1420 – 1430	***Recap***
1430	*Lunch & End of Day One*

Day 2

0730 – 0930	***Types of Measurements (Royalty & Custody Transfers)***
0930 – 0945	*Break*
0945 – 1100	***Potential Petroleum Loss***
1100 – 1230	***Types of Flow Measurement Devices***
1230 – 1245	*Break*
1245 – 1330	***Proving Systems***
1330 – 1420	***Calculation of Liquid Petroleum Quantities***
1420 – 1430	***Recap***
1430	*Lunch & End of Day Two*

Day 3

0730 – 0930	***Guidelines for Marine Measurement***
0930 – 0945	*Break*
0945 – 1100	***Vessel Experience Factor (VEF)***
1100 – 1230	***Tank Gauging***
1230 – 1245	*Break*
1245 – 1330	***Temperature Determination***
1330 0- 1420	***Tank Sampling***
1420 – 1430	***Recap***
1430	*Lunch & End of Day Three*

Day 4

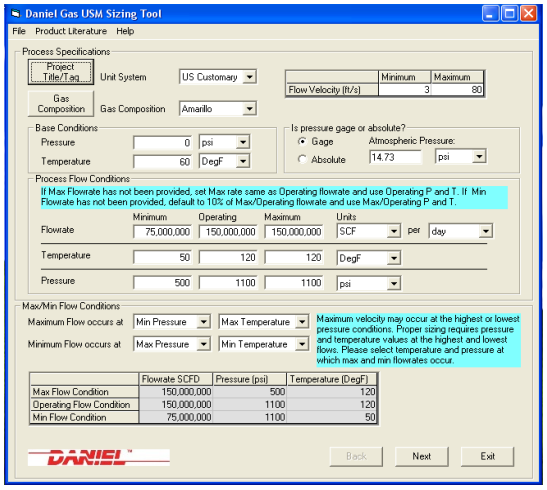
0730 – 0930	***Safety & Health Considerations***
0930 – 0945	*Break*
0945 – 1100	***Before Loading***
1100 – 1230	***During Loading***
1230 – 1245	*Break*
1245 – 1330	***Vessel Inspection After Loading***
1330 – 1420	***Load Port Inspection after Loading***
1420 – 1430	***Recap***
1430	*Lunch & End of Day Four*

Day 5

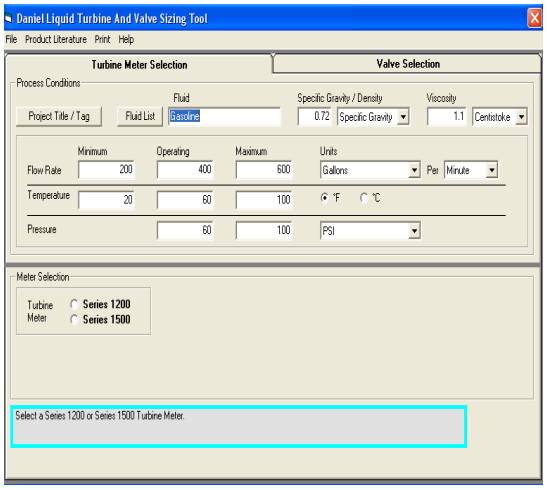
0730 – 0830	***Load Port Reconciliation***
0830 – 0930	***Before Discharge***
0930 – 0945	*Break*
0945 – 1100	***During Discharge***
1100 – 1230	***Vessel Inspection After Discharge***
1230 – 1245	*Break*
1245 – 1315	***Shore Inspection After Discharge***
1315 – 1345	***Discharge Port Reconciliation***
1345 – 1400	***Course Conclusion***
1400 – 1415	***POST-TEST***
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & End of Course*

Simulators (Hands-on Practical Sessions)

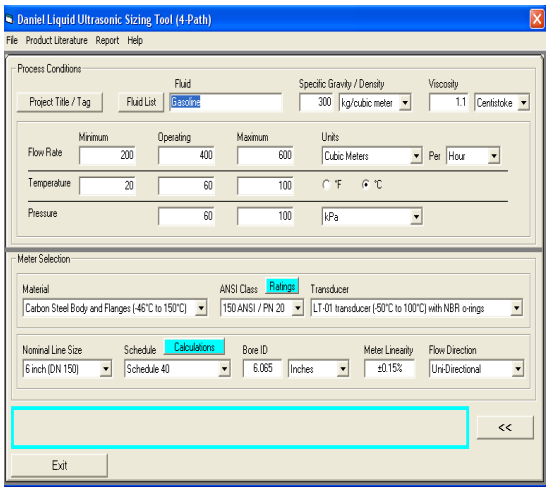
Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using our state-of-the-art "Gas Ultrasonic Meter Sizing Tool", "Liquid Turbine Meter and Control Valve Sizing Tool", "Liquid Ultrasonic Meter Sizing Tool" and "Orifice Flow Calculator" simulators.



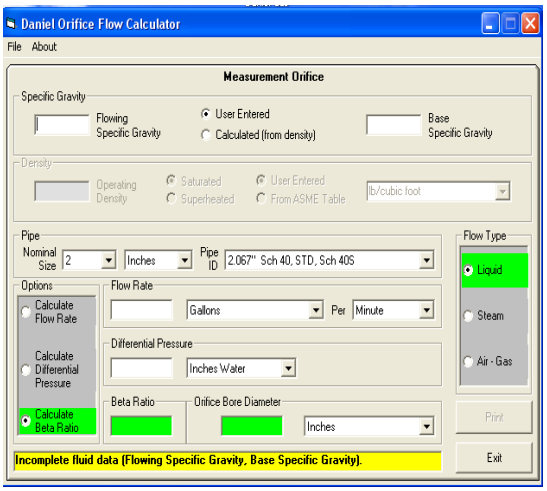
Gas Ultrasonic Meter (USM) Sizing Tool Simulator



Liquid Turbine Meter and Control Valve Sizing Tool Simulator



Liquid Ultrasonic Meter Sizing Tool Simulator



Orifice Flow Calculator Simulator

Course Coordinator

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