

COURSE OVERVIEW PE0531 Safety Relief Disposal and Flare Systems

Course Title

Safety Relief Disposal and Flare Systems

Course Date/Venue

July 27-31, 2025/Tamra Meeting Room, Al Bandar Rotana Creek, Dubai, UAE

o CEUs

(30 PDHs)

Course Reference PE0531

Course Duration/Credits Five days/3.0 CEUs/30 PDHs

Course Description









The flare, blowdown and pressure relief systems are the most important elements for emergency and operational discharge of flammable substances in the process facilities. Safety relief and flare systems control vapors and liquids that are released by pressurerelieving devices and blow-downs. Pressure relief is an automatic, planned release when operating pressure reaches a predetermined level. Blowdown normally refers to the intentional release of material, such as blowdowns from process unit start-ups, furnace blowdowns, shutdowns, and emergencies. Vapor depressuring is the rapid removal of vapors from pressure vessels in case of fire. This may be accomplished by the use of a rupture disc, usually set at a higher pressure than the relief valve.

The principal elements of the safety relief and flare systems are the individual pressure relief devices, the flare piping system, the flare separator drum, and the flare (including igniters, tips, sealing devices, purge and steam injection for smokeless burning). Application of relief devices must comply with appropriate ASME Vessel Codes and API 520/521 standards.



PE0531 - Page 1 of 10





Design of relief devices must comply with applicable national codes and laws as well as the requirements of the insurance covering the plant or installation. National regulations not only cover safety but also environmental considerations such as air and water pollution and noise abatement.

This course presents a convenient overview of relief system details based on the full scope of API, ASME, and other code and specification requirements. It covers all aspects of relief flare systems from the emergency relief sources through the valving and flare network right to the stack and flare tip. Descriptions and design criteria will be outlined for flare tips, seals, stacks, knockout drums, header systems, relief valves, depressurization systems and basic hazard analysis. Alternative design methods will be also described with reference to the specific nature of relief and flare systems worldwide.

Course Objectives

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

- Apply an in-depth knowledge and skills in the operation, maintenance and troubleshooting of flare, blowdown and pressure relief systems
- Discuss product specification and identify the different types of flow measurement
- Review the various instrumentation and sensing devices used in flare, blowdown and pressure relief systems
- Carryout installation, troubleshooting and calibration of the control systems used in plant
- Determine the components and function of the relief systems and practice the sizing and installation of the relieving devices
- Identify the types, features and application of flare systems
- Determine the applicable codes, standards and recommended practices for flare, blowdown and pressure relief systems
- Acquire knowledge on product storage and tanks and recognize the importance of product recovery
- Evaluate the scope of waste heat recovery and explain its role in flare and pressure relief systems
- Operate, maintain and troubleshoot flare, blowdown and pressure relief system in a professional manner

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.



PE0531 - Page 2 of 10



Who Should Attend

This course provides systematic techniques on the operation, maintenance and troubleshooting of flare, blowdown and pressure relief systems. Operations personnel, supervisors, engineers, maintenance personnel, senior plant supervisors, operations process support engineers, design engineers and process engineers will gain an outstanding knowledge from the practical and operational aspects of the course.

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.

ACCREDITED
 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.



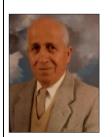
PE0531 - Page 3 of 10





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. Mohammad Hamami, is a Senior Process Engineer with an extensive practical experience within the Oil, Gas, Refinery, Petrochemical and Power industries. His experience covers Clean Fuel Technology & Standards, Clean Fuel Specification, Emission Regulation, Crude Oil Production, Desulphurization, Synthesis Gas Production, Naphtha Isomerization, Diesel Fuel Additives, Storage Tanks Filtration, Fuel Quality Inspection,

Process Plant Troubleshooting & Engineering Problem Solving, Process Equipment Operation, Process Plant Operation, Process Plant Start-up & Commissing, Process Plant Optimization, Oil & Gas Field Operation, Oil Movement, Storage & Troubleshooting, Petroleum Refinery Process, Process Reactor Operation & Troubleshooting, LPG Oil & Gas Operation & Troubleshooting, Crude Oil & LNG Storage, LNG & LPG Plants Gas Processing, Refinery Process Operations Technology, Liquid Bulk Cargo Handling, Gas Conditioning & Processing Technology, Distillation Column Design & Operation and Gasoline & Diesel Fuel Technology. Further he is also well-**Refinery** Operational Economics Profitablity. Aromatics versed in & Manufacturing Process, Hydrogen Production Operation, Steam Reforming Technology, Gas Treating, Hydro-treating & Hydro-Cracking, Catalyst Material Handling, Gas Sweetening & Sulfur Recovery, Hydro Carbon Dew Point (HCDP) Control, Heat Exchangers & Fired Heaters, Amine Gas Sweetening, Plastic Additives Selection & Application, Crude & Vaccum Process Technology, Flare & Pressure Relief Systems, Stock Management & Tank Dipping Calculation, NGL Recovery & Fractionation, Refrigerant & NGL Extraction and Catalytic Craking & Reforming.

During his long professional carreer, Mr. Mohammad worked as a **Refinery Manager**, **Operations Manager**, **Section Head/Superintendent** and **Process Engineer** for **Process Units**, **Utilities & Oil Movement** in various companies. He has been responsible for a number of **technological-driven world-scale hydrocarbon processing projects** from **beginning to successful start-up**.

Mr. Mohammad has a **Bachelor's** degree in **Chemical Engineering**. He is an **active member** of the **American Institute of Chemical Engineers** (AIChE) and has presented **technical papers** at its **several national meetings**. He has largely participated in the **start-up of seven world-scale process plants** which made him an **International Expert** in **Process Plant Start-Up** and **Oil Movement** and a **Certified Instructor/Trainer**.

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.



PE0531 - Page 4 of 10





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% Lectures20% Practical Workshops & Work Presentations30% Hands-on Practical Exercises & Case Studies20% Simulators (Hardware & Software) & Videos

Sunday, 27th of July 2025

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

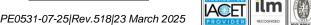
Dav 1.

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:

$\begin{array}{c cccc} 0800 - 0815 & WV \\ 0815 - 0830 & PI \\ 0830 - 0930 & & \\ & & \\ 0930 - 0945 & & \\ & & \\ 0945 - 1100 & & \\ & & \\ & & \\ \end{array}$	egistration & Coffee Velcome & Introduction RE-TEST roduct Specification P-Gas Specification Parameters • Vapor Pressure • Moisture Content • ulfur Content • Volatile Residue • Non-Volatile Residue • Non- vecification Contaminants • Odorization reak Now Measurement low Calculation Guide • Gas Measurement & Pipe Rupture • Liquid Measurement • Mass Measurement • Steam Measurement • Miscellaneous
0815 - 0830 PI Pr 0830 - 0930 LF Su Sp 0930 - 0945 Br 0945 - 1100 Fla M	RE-TEST roduct Specification P-Gas Specification Parameters • Vapor Pressure • Moisture Content • P-Gas Specification Parameters • Vapor Pressure • Moisture Content • ulfur Content • Volatile Residue • Non-Volatile Residue • Non- pecification Contaminants • Odorization reak Non-Weasurement low Measurement Jow Calculation Guide • Gas Measurement & Pipe Rupture • Liquid
0830 - 0930 Pr 0830 - 0930 LF Sp 0930 - 0945 0930 - 0945 Br Fla Fla 0945 - 1100 Fla	roduct Specification P-Gas Specification Parameters Vapor Pressure Moisture Content ulfur Content Volatile Residue Non-Volatile Residue Non-volatile Residue vecification Contaminants Odorization Odorization reak Iow Measurement Iow Calculation Guide Gas Measurement & Pipe Rupture Liquid
0830 - 0930 Su Sp 0930 - 0945 Br 0945 - 1100 Fla Mage Mage Su Sp Su Sp Su Sp Su Sp Su Sp Su Sp Su Su Su Su Su Su Su Su Su Su	P-Gas Specification Parameters • Vapor Pressure • Moisture Content • ulfur Content • Volatile Residue • Non-Volatile Residue • Non- pecification Contaminants • Odorization reak low Measurement low Calculation Guide • Gas Measurement & Pipe Rupture • Liquid
0945 – 1100 Fla	low Measurement low Calculation Guide • Gas Measurement & Pipe Rupture • Liquid
0945 – 1100 Fla M	low Calculation Guide • Gas Measurement & Pipe Rupture • Liquid
	leasurement Devices • Auxiliary Equipment and Common Terms
Ge 1100 – 1230 Te Tr	Istrumentation & Sensing Devices eneral Instrumentation Considerations • Identification • Pneumatic Power upplies • Electronic Power Supplies • Pressure Sensors • Level Sensors • emperature Sensors • Flow Sensors • Signal Transmitters • Pneumatic ransmitters • Electronic Transmitters • Signal Converters • Recorders and idicators
1230 – 1245 Br	reak
1245 – 1420 Co Ins	ontrol Systems ontrol Concepts • Control Modes and Controllers • Controller Tuning • ontrol Valves • Liquid Service • Sizing Calculation Procedure • istallation, Troubleshooting, and Calibration • Digital Computers • Digital irst-Level Control Systems • Analytical Instruments
1420 – 1430 Us To	<i>ecap</i> sing this Course Overview, the Instructor(s) will Brief Participants about the opics that were Discussed Today and Advise Them of the Topics to be Discussed omorrow
1430 Lu	unch & End of Day One



PE0531 - Page 5 of 10





Day 2:	Monday, 28 th of July 2025
0730 - 0930	Relief Systems
0,00 0000	Relief Device Design • Blocked Discharge • Fire Exposure • Tube Rupture
0930 - 0945	Break
0945 - 1115	Relief Systems (cont'd)
	Control Valve Failure • Thermal Expansion • Utility Failure
1115 – 1230	Relieving Devices
1115 - 1250	Safety Relief Valves • Rupture Disk • Sizing of Relief Devices
1230 - 1245	Break
1245 - 1420	Relieving Devices (cont'd)
	Relief Valve Installation • Relief System Piping Design • Knockout Drums
1420 - 1430	Recap
1430	Lunch & End of Day Two

Day 3:	Tuesday, 29 th of July 2025
0730 - 0930	Flare Systems Types of Flare Systems • Thermal Radiation • Smokeless Operation • Pilots and Ignition
0930 - 0945	Break
0945 - 1115	<i>Flare Systems (cont'd)</i> Seals • Location and Regulations • Special Relief System Considerations • Low Temperature Flaring
1115 - 1230	Applicable Codes, Standards & Recommended PracticesASME Codes • ANSI Codes • API Publications
1230 - 1245	Break
1245 - 1420	Applicable Codes, Standards & Recommended Practices (cont'd)NFPA Publications • OSHA Publications • CGA (Compressed GasAssociation) Publications
1420 - 1430	Recap
1430	Lunch & End of Day Three

Day 4:	Wednesday, 30 th of July 2025
	Product Storage & Tanks
0730 – 0930	Storage Classification • Working Pressures • Types of Storage • Materials of
	Construction • Protective Coatings • Insulation • Appurtenances • Site
	Preparation and Installation Cathodic Protection
0930 - 0945	Break
	Product Recovery
0945 – 1100	<i>Product Losses</i> • <i>Vapor Recovery Systems</i> • <i>Separators and Filters</i> • <i>Fired</i>
	Equipment • Hot Oil System
1100 - 1230	Waste Heat Recovery
	Heat Exchangers Overview • Heat Balances • Shell and Tube Exchangers •
	Fouling Resistances • Film Resistances • Performance Evaluation with
	Sensible Heat Transfer • Condensers
1230 – 1245	Break
	Waste Heat Recovery
1245 1420	Reboilers and Vaporizers • Selection of Exchanger Components •
1245 – 1420	Nomenclature • Shell Size and Tube Count Estimation • Operating
	Characteristics • Inlet Gas Exchanger • Hairpin Heat Exchangers
1420 - 1430	Recap
1430	Lunch & End of Day Four



PE0531 - Page 6 of 10





Day 5:	Thursday, 31 st of July 2025
0730 - 0930	Operation, Maintenance & Troubleshooting
0930 - 0945	Break
0945 – 1100	Operation, Maintenance & Troubleshooting (cont'd)
1100 – 1230	Operation, Maintenance & Troubleshooting (cont'd)
1230 - 1245	Break
1245 – 1345	Operation, Maintenance & Troubleshooting (cont'd)
1345 – 1400	Course Conclusion
1400 – 1415	POST-TEST
1415 – 1430	Presentation of Course Certificates
1430	Lunch & End of Course



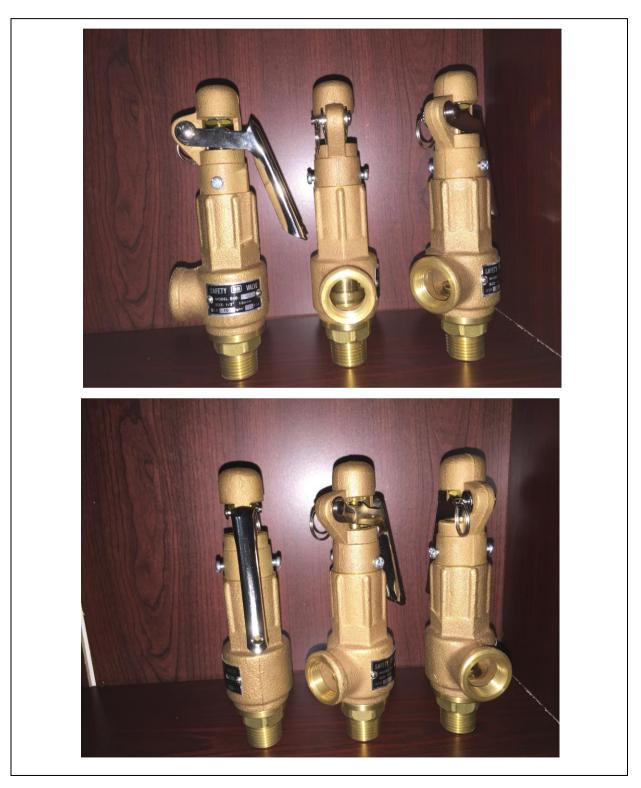
PE0531 - Page 7 of 10





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 "Valve Demo Kit", "Gas Ultrasonic Meter Sizing Tool", "Liquid Turbine Meter and Control Valve Sizing Tool", "Liquid Ultrasonic Meter Sizing Tool" and "Orifice Flow Calculator" simulators "Valve Sizing Simulator", "Valve Simulator 3.0", "Valvestar 7.2 Simulator" and "PRV²SIZE Simulator".





PE0531 - Page 8 of 10





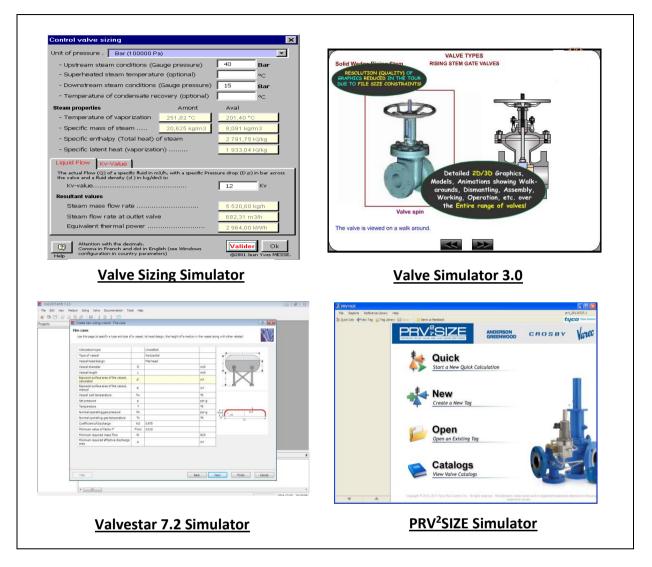
Product Literature Help	Daniel Liquid Turbine And Valve Sizing Tool File Product Literature Print Help
Process Specifications	Turbine Meter Selection Valve Selection
Project Unit System US Customary V Minimum Maximum	I urbine Meter Selection Valve Selection
Flow Velocity (tt/s) 3 80	Fluid Specific Gravity / Density Viscosity
Composition Gas Composition Amarilo	Project Title / Tag Fluid List Bascine 0.72 Specific Gravity 💌 1.1 Centistoke
Base Conditions Pressure 0 psi	
Temperature 60 DegF C Absolute 14.73 psi -	Minimum Operating Maximum Units
Process Flow Conditions	Flow Rate 200 400 600 Gallons V Per Minute V
If Max Flowrate has not been provided, set Max rate same as Operating flowrate and use Operating P and T. If Min Flowrate has not been provided, default to 10% of Max/Operating flowrate and use Max/Operating P and T.	Temperature 20 60 100 @ 1F C 1C
Minimum Operating Maximum Units	
Flowrate 75,000,000 150,000,000 SCF v per day v	Pressure 60 100 PSI 💌
Temperature 50 120 120 DegF -	
Pressure 500 1100 1100 psi 💌	Meter Selection
Asx/Min Flow Conditions	Tutine C Series 1200
Maximum Flow occurs at Min Pressure Max Temperature Maximum velocity may occur at the highest or lowest pressure conditions. Proper sizing requires pressure	Meter C Series 1500
Maximum How occurs at Min Pressure Minimum Flow occurs at Max Pressure Minimum Flow occurs Minimum Flow occur	
which max and min flowrates occur.	
Flowrate SCFD Pressure (ps) Temperature (DegF) Max Flow Condition 150,000,000 500 120	
Operating Flow Condition 150.000,000 1100 120 Min Flow Condition 75.000,000 1100 50	Select a Series 1200 cr Series 1500 Turbine Meter.
Back Next Exit	
	Simulator
	Simulator
aniel Liquid Ultrasonic Sizing Tool (4-Path)	Daniel Orifice Flow Calculator File About
Product Uterature Report Help ccess Constitions Filid Specific Gravity / Denaty Viscosity	Daniel Orifice Flow Calculator File About Measurement Orifice
Product Uberature Report Help	Daniel Orifice Flow Calculator File About Specific Gravity Orifice Orifice Ori
Product Literature Report Help ccess Candilons Pageoti Tille / Tag Pluid List Feature Minimum Operating Maximum Units	Daniel Orifice Flow Calculator File About Specific Gravity One for the formula fo
Roduct Literature Report Help coess Conditions Project Title / Tag Puid List Bankara 300 Kg/codic meter 111 Centrative v	Daniel Orifice Flow Calculator File About Specific Gravity Flowing Outropy Flowing Outropy Flowing Flowing Flo
Product Uterature Report Help coess Canditions Project Tille / Tag Puid List Booxtone Minimum Operating Maximum Units	Daniel Orifice Flow Calculator File About Specific Gravity Powing Calculated (from density) Density Operating Operating Calculated (Form density) Density Operating Calculated (Form density) Density Operating Calculated (Form density) Density De
Roduct Literature Report Help Corest Conditions Fluid Specific Stavely / Density Viscosity Project Title / Tag Puid List Statistics 300 Kajo datic meter 1.1 Centrative / Density Flow Rate 200 400 600 Cubic Meters Per [Hour	Daniel Orifice Flow Calculator Fle About Specific Gravity Outing Outing Calculated (from density) Outing Density Den
Product Uterature Report Help coess Conditions Project Tile / Tag Priot List Bootcore Flow Rate 200 Petrology Flow Ra	Daniel Orifice Flow Calculator Fie About Specific Gravity Density Operating C Superheated Density C Superheated C Superheated C Superheated C Superheated C Superheated Density C Superheated C Superheated C Superheated Density C Superheated C
Product Literature Report Help Decess Conditions Flaid Specific Bravity / Density Viscosity Project Title / Tag Flaid Litit Flaid Specific Bravity / Density Viscosity Flow Rate 200 Gastrong Maeinum Units Flow Rate 200 400 600 Cubic Maters P for Hoar Flow Rate 20 50 100 17 F 10° Pessure 600 100 MP e	Daniel Orifice Flow Calculator File About Specific Gravity Density Density Operating C Superheated C From ASME Table Density Ploe Flow Type Flow Type Flow Type
Roduct Literature Report Help Corest Conditions Fluid Specific Stavely / Density Viscosity Project Title / Tag Puid List Statistics 300 Kajo datic meter 1.1 Centrative / Density Flow Rate 200 400 600 Cubic Meters Per [Hour	Daniel Orifice Flow Calculator Fie About Specific Gravity Density Operating C Superheated Density C Superheated C Superheated C Superheated C Superheated C Superheated Density C Superheated C Superheated C Superheated Density C Superheated C
Product Literature Report Help Scenario Fluid Specific Gravity / Density Viscosity Project Title / Tag Fluid Litit Stations 1.1 Flow Rate 200 400 500 Cubic Maters Per Hour Flow Rate 200 600 100 Cubic Maters Per Hour Temperature 200 600 100 ''F e^-t'C Pessure 600 100 ''F e^-t'C	Daniel Orifice Flow Calculator Fle About Specific Gravity Ouring
Product Literature Report Help Corest Conditions Flaid Specific Stanky/Density Vaccetly Project Title / Tag Plaid List Statistic 200 kg/cubic meter 1.1 Flow Rate 200 400 600 Cubic Meters Per Hour Image: Cubic Meters Flow Rate 200 600 100 Cubic Meters Per Hour Image: Cubic Meters Pressure 60 100 Image: Par Image: Cubic Meters Image: Cubic Meters Per Hour	Daniel Orifice Flow Calculator Fie About Measurement Orifice Specific Gravity Operating Calculated (from density) Density Operating C Superheated Fion ASME Table Nominal Z Inches Pipe Dotors Pipe Nominal C Inches Pipe Dotors Pipe Nominal C Inches Pipe Dotors Pipe Size I Inches Pipe Size I Calculate Flow Rate Calculate Flow Calculate Flow Rate
Roduct Literature Report Help Corest Conditions Fluid Specific Bisely / Denaty Viscosity Project Tile / Tag Fluid Lit Basecific 300 Regional State Sta	Daniel Oriffice Flow Calculator Fie About Measurement Orifice Specific Gravity Guser Entered Specific Gravity Calculated (from density) Density Density Operating Gourdenter Calculated Flow Rate Galore Per Minute Steam Steam Calculate Flow Rate Galore Per Minute Steam Calculate Calculate
Product Literature Report Help Corest Conditions Flad Specific Bravity / Density Viscosity Project Title / Tag Flad Lit Flad 300 (sp/cobic meter v) 1.1 Centratole v Flow Rate 200 400 600 Cobic Meter: v Per Hour v Flow Rate 200 600 100 Viscosity Persoure 600 100 Viscosity Persoure 600 100 VisPe Cators Steel Body and Flanges (46°C to 150°C) Topologics Topologics Viscosity KiningLine Size Schedule Soe ID Meter Linearly Flow Direction	Daniel Orifice Flow Calculator Fle About
Roduct Literature Report Help Corest Conditions Fluid Specific Bisely / Density Viscosity Project Tile / Tag Fluid Lit Baseline 300 Reformance 1.1 Flow Rate 200 400 600 Cubic Meters Per (Hour Image: New York Flow Rate 200 600 100 ° F ° C Preserve 60 100 ° F ° C Persure 60 100 ° F ° C Ref Selection ANSI Class Transducer Section Adenial ANSI / FN 20 Transducer (SO°C to 100°C) with NBR enings v	Daniel Orifice Flow Calculator File About Measurement Orifice Specific Gravity Powing Calculated (from density) Density Openating C Superheated C From ASME Table Down Rate Data Data
Product Literature Report Help Corest Conditions Flad Specific Bravity / Density Viscosity Project Title / Tag Flad Lit Flad 300 (sp/cobic meter v) 1.1 Centratole v Flow Rate 200 400 600 Cobic Meter: v Per Hour v Flow Rate 200 600 100 Viscosity Persoure 600 100 Viscosity Persoure 600 100 VisPe Cators Steel Body and Flanges (46°C to 150°C) Topologics Topologics Viscosity Kinindi Line Size Schedule Soe ID Meter Linearly Flow Direction	Daniel Orifice Flow Calculator Fie About Measurement Orifice Specific Gravity Density Density Operating Calculate Pipe Density Pipe Size I Calculate Differential Pressure Calculate Differential Differential Differential Calculate Calculate Calculate Differential Calculate Differential Calculate Differential Calculate Calculate Differential Calculate Differential Calculate Calculate
Roduct Literature Report Help Corest Conditions Fluid Specific Bisely / Density Viscosity Project Tile / Tag Fluid Lit Basezize 300 Reformance 1.1 Flow Rate 200 400 600 Cubic Meters Per (Hour Image: Specific Bisely / Density Viscosity Flow Rate 200 400 600 Cubic Meters Per (Hour Image: Specific Bisely on the specific Bisely / Density Flow Rate 200 600 100 ° F ° C Pressure 600 100 ° F ° C Ref Selection ANSI Class Base D Transducer (SO'C to 100'C) with NBR enings • Komind Line Size Schedule 40 See D Meter Linearly Flow Direction Sinch (N1 150) Schedule 40 6605 Inches \$1153 Unit/Directional	Daniel Orifice Flow Calculator Fle About
Product Literature Report Help Corest Conditions Flad Specific Bravity / Density Viscosity Project Title / Tag Flad Lit Flad 300 (sp/cobic meter v) 1.1 Centratole v Flow Rate 200 400 600 Cobic Meter: v Per Hour v Flow Rate 200 600 100 Viscosity Persoure 600 100 Viscosity Persoure 600 100 VisPe Cators Steel Body and Flanges (46°C to 150°C) Topologics Topologics Viscosity Kinindi Line Size Schedule Soe ID Meter Linearly Flow Direction	Daniel Orifice Flow Calculator File About Measurement Orifice Specific Gravity Flowing Flowing Calculated (from density) Density Operating Calculated (from density) Density Operating Calculated (from ASME Table Pipe Nominal Thereivel Pipe Pipe Calculate Differential Pressue Differential Pressue Differential Pressue Differential Pressue
Roduct Literature Report Help Corest Conditions Fluid Specific Bisely / Density Viscosity Project Tile / Tag Fluid Lit Basezize 300 Reformance 1.1 Flow Rate 200 400 600 Cubic Meters Per (Hour Image: Specific Bisely / Density Viscosity Flow Rate 200 400 600 Cubic Meters Per (Hour Image: Specific Bisely on the specific Bisely / Density Flow Rate 200 600 100 ° F ° C Pressure 600 100 ° F ° C Ref Selection ANSI Class Base D Transducer (SO'C to 100'C) with NBR enings • Komind Line Size Schedule 40 See D Meter Linearly Flow Direction Sinch (N1 150) Schedule 40 6605 Inches \$1153 Unit/Directional	Daniel Orifice Flow Calculator Fle About
Product Liberature Report Help Docess Conditions Fluid Specific Sisekly / Density Viscosity Project Title / Tag Fluid Litt Sector Size 300 Fluid Litt Tornet on the sector of	Daniel Orifice Flow Calculator File About Measurement Diffice Specific Gravity Flowing Flowing Calculated (from density) Density Operating Calculated (from AcME Table Density Pipe Density Pipe Pipe Pipe Pipe Calculate Pipe Calculate Pipe Calculate Pipe Calculate Pipe Calculate Differential Pise Differential Pise Differential Pise Calculate Pise Pi
Project Liberature Report Help Dores Conditions Fluid Specific Gravity / Density Viscosity Project Title / Tag Fluid Litt Bassizet 300 Fluid Coals: meter 1.1 Flow Rase 200 400 600 Cubic Maters Per Floar Image: Coals:	Daniel Orifice Flow Calculator File About Measurement Diffice Specific Gravity Flowing Flowing Calculated (from density) Density Operating Calculated (from AcME Table Density Pipe Density Pipe Pipe Pipe Pipe Calculate Pipe Calculate Pipe Calculate Pipe Calculate Pipe Calculate Differential Pise Differential Pise Differential Pise Calculate Pise Pi
Product Literature Report Help Decess Conditions Fluid Specific Gisrehy / Density Viscosity Project Title / Tag Fluid Liti Statistic 300 Fluid Liti Territota w Flow Rate 200 400 600 Units Per Flow w 1.1 Centritota w Flow Rate 200 400 600 Units Per Flow w Per Flow w Temperature 20 60 100 'F P 'C Per Flow w Per Flow w Pressure 60 100 'JPa w w eter Selection Schedule Galorisations Bore ID Transducer Coli 100'C) with NBR enings w Cation Steed Body and Flanger L45°C to 120'C) 150 Alisti / Phi 20' w I.1 10 tensducer (SOC to 100'C) with NBR enings w Iominal Line Size Schedule Schedule Schedule Schedule Weitering w Exit Schedule Schedule Schedule Schedule Schedule Schedule Schedule	Daniel Orifice Flow Calculator File About Measurement Diffice Specific Gravity Flowing Flowing Calculated (from density) Density Operating C Superheated C User Entered Density Operating C Superheated C User Entered Pipe Operating C Superheated C User Entered Pipe Density Pipe Pipe Pipe Density Differential Pressure Differential Differential Pr
Product Literature Report Help Decess Conditions Fluid Specific Gisrehy / Density Viscosity Project Title / Tag Fluid Liti Statistic 300 Fluid Liti Territota w Flow Rate 200 400 600 Units Per Flow w 1.1 Centritota w Flow Rate 200 400 600 Units Per Flow w Per Flow w Temperature 20 60 100 'F P 'C Per Flow w Per Flow w Pressure 60 100 'JPa w w eter Selection Schedule Galorisations Bore ID Transducer Coli 100'C) with NBR enings w Cation Steed Body and Flanger L45°C to 120'C) 150 Alisti / Phi 20' w I.1 10 tensducer (SOC to 100'C) with NBR enings w Iominal Line Size Schedule Schedule Schedule Schedule Weitering w Exit Schedule Schedule Schedule Schedule Schedule Schedule Schedule	Daniel Orifice Flow Calculator File About Measurement Diffice Specific Gravity Flowing Flowing Calculated (from density) Density Operating Calculated (from AcME Table Density Pipe Density Pipe Pipe Pipe Pipe Calculate Pipe Calculate Pipe Calculate Pipe Calculate Pipe Calculate Differential Pise Differential Pise Differential Pise Calculate Pise Pi
Product Liberature Report Help Constitute Fluid Specific Glavity / Denaty Viscosity Project Title / Tag Fluid Lit Specific Glavity / Denaty Viscosity Flow Rade 200 600 Totals Per Flow Flow Rade 20 600 Totals Maximum Pressure 600 100 ''F' ''C' Pressure 600 100 ''F' ''C Pressure 600 100 ''F' ''C' Stockology and Ranges (46°C to 150°C) ''Total/'S' ''Total/'S' ''Total/'S' Stochology and Ranges (46°C to 150°C) ''Total/'S' ''Total/'S' ''Total/'S' ''Total/'S' Stochology and Ranges (46°C to 10°C) Stochology 6.005	Daniel Orifice Flow Calculator File About Measurement Diffice Specific Gravity Flowing Flowing Calculated (from density) Density Operating C Superheated C User Entered Density Operating C Superheated C User Entered Pipe Operating C Superheated C User Entered Pipe Density Pipe Pipe Pipe Density Differential Pressure Differential Differential Pr
Product Literature Report Help Decess Conditions Fluid Specific Gisrehy / Density Viscosity Project Title / Tag Fluid Liti Statistic 300 Fluid Liti Territota w Flow Rate 200 400 600 Units Per Flow w 1.1 Centritota w Flow Rate 200 400 600 Units Per Flow w Per Flow w Temperature 20 60 100 'F P 'C Per Flow w Per Flow w Pressure 60 100 'JPa w w eter Selection Schedule Galorisations Bore ID Transducer Coli 100'C) with NBR enings w Cation Steed Body and Flanger L45°C to 120'C) 150 Alisti / Phi 20' w I.1 10 tensducer (SOC to 100'C) with NBR enings w Iominal Line Size Schedule Schedule Schedule Schedule Weitering w Exit Schedule Schedule Schedule Schedule Schedule Schedule Schedule	Daniel Orifice Flow Calculator File About Measurement Diffice Specific Gravity Flowing Flowing Calculated (from density) Density Operating C Superheated C User Entered Density Operating C Superheated C User Entered Pipe Operating C Superheated C User Entered Pipe Density Pipe Pipe Pipe Density Differential Pressure Differential Differential Pr



PE0531 - Page 9 of 10







Course Coordinator

Mari Nakintu, Tel: +971 230 91 714, Email: mari1@haward.org



PE0531 - Page 10 of 10

