



COURSE OVERVIEW FE0087-4D

ASME PCC 2 - Repair of Pressure Equipment and Piping

Course Title

ASME PCC 2 - Repair of Pressure Equipment and Piping

Course Date/Venue

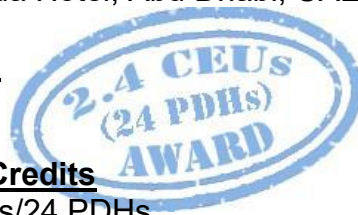
July 21-24, 2025/Ajman Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

Course Reference

FE0087-4D

Course Duration/Credits

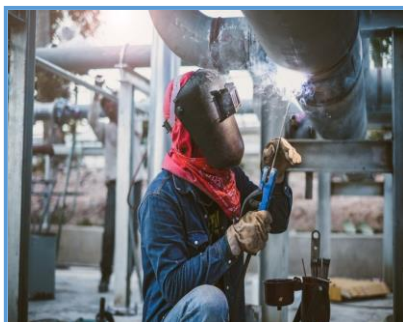
Four days/2.4 CEUs/24 PDHs



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 participants with a detailed and up-to-date overview of Repair of Pressure Equipment and Piping (PCC-2). It covers the scope, purpose, and framework of the PCC-2 standard; the common types of damage in pressure equipment and piping; the various repair methods covering welded, mechanical, and non-metallic; the selection of appropriate materials based on the existing system and the type of damage; the basics of welding techniques used in repairs, including safety considerations; the proper procedures for welded repairs; the calculation for welded repairs and mechanical repairs; and the guidelines for temporary and permanent mechanical repairs.



During this interactive course, participants will learn the safety and quality assurance in welding including nonmetallic and bonded repairs; the design and application of engineered wrapping; the methods and techniques for testing repaired equipment to ensure functionality and safety; setting the acceptance criteria and reviewing temporary repairs; choosing between temporary and permanent repairs; documenting repair processes and final checks before implementation; the guidelines to prevent damage during repair; and the systematic process for reviewing and getting approval on selected repair methods.

Course Objectives

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

- Apply and gain an in-depth knowledge on the repair of pressure equipment and piping (PCC-2)
- Discuss the scope, purpose and framework of the PCC-2 standard
- Identify and classify the common types of damage in pressure equipment and piping including various repair methods covering welded, mechanical, and non-metallic
- Select appropriate materials based on the existing system and the type of damage
- Apply the basics of welding techniques used in repairs, including safety considerations
- Carryout proper procedures for welded repairs, calculation for welded repairs, mechanical repairs and guidelines for temporary and permanent mechanical repairs
- Employ safety and quality assurance in welding including nonmetallic and bonded repairs
- Illustrate the design and application of engineered wrapping as well as the methods and techniques for testing repaired equipment to ensure functionality and safety
- Set acceptance criteria, review temporary repairs and choose between temporary and permanent repairs
- Document repair processes and final checks before implementation before implementation including the guidelines to prevent damage during repair
- Apply systematic process for reviewing and getting approval on selected repair methods

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 a wide understanding and deeper appreciation of pressure equipment and piping (PCC-2) for integrity assessment engineers, operations engineers, maintenance engineers, maintenance supervisors, facility integrity supervisors, corrosion engineers, corrosion specialists, site inspection engineers, inspectors, piping engineers, mechanical engineers and other technical staff

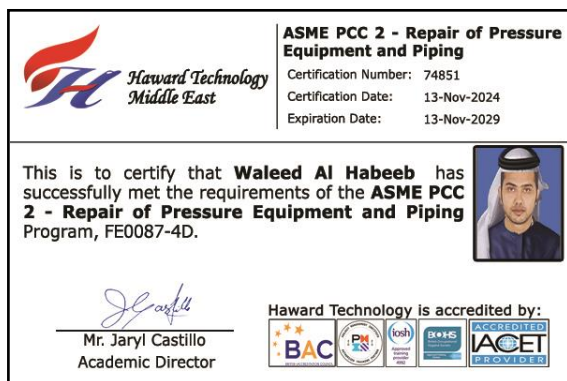
Course Certificate(s)

- (1) Internationally recognized Competency Certificates and Plastic Wallet Cards will be issued to participants who completed a minimum of 80% of the total tuition hours and successfully passed the exam at the end of the course. Certificates are valid for 5 years.

Recertification is FOC for a Lifetime.

Sample of Certificates

The following are samples of certificates that will be awarded to course participants:-



- (2) Official Transcript of Records will be provided to the successful delegates with the equivalent number of ANSI/IACET accredited Continuing Education Units (CEUs) earned during the course.



Haward Technology Middle East
Continuing Professional Development (HTME-CPD)

CEUs

CEU Official Transcript of Records

TOR Issuance Date:

13-Nov-24

HTME No.

74851

Participant Name:

Waleed Al Habeeb

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
FE0087-4D	ASME PCC 2 - Repair of Pressure Equipment and Piping	Nov 10-13, 2024	24	2.4

Total No. of CEU's Earned as of TOR Issuance Date

2.4

TRUE COPY



Jaryl Castillo
Academic Director

Haward Technology has been approved as an Accredited Provider by the International Association for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this approval, Haward Technology has demonstrated that it complies with the ANSI/IACET 1-2018 Standard which is widely recognized as the standard of good practice internationally. As a result of their Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for programs that qualify under the ANSI/IACET 1-2018 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 Association 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 is accredited by












P.O. Box 26070, Abu Dhabi, United Arab Emirates | Tel.: +971 2 3091 714 | E-mail: info@haward.org | Website: www.haward.org

Certificate Accreditations

Haward's 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**. Haward's certificates are internationally recognized and accredited by the British Accreditation Council (BAC). 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 **2.4 CEUs** (Continuing Education Units) or **24 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 Fee

US\$ 4,500 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 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. Danny Gul (P.E), is a **Senior Inspection Engineer** with extensive years of experience within the **Oil & Gas, Petrochemical, Process and Power** Industries. His wide expertise lies extensively in the areas of **Pressure Vessels, Tanks & Piping Systems, ASME Post Construction Code (PCC-2), Pressure Equipment Analysis & Repair, Pressure Vessels & Tanks Repair Methods, Risk Based Inspection, RBI Methodology, RBI Assessment, Fitness-for-Service (FFS), Tank Inspection & Repair, Tank Calibration & Testing, Welded Tanks for Oil Storage (API 650), Atmospheric & Low Pressure Inspection (API RP 575), Pressure Vessel Inspection & Repair, Inspection & Repair of Erection Activities, Corrosion & Materials Inspection, Metallurgy, Corrosion & Prevention of Failures, Material Selection & Properties, Corrosion Prevention, Corrosion Technology & Inspection, Materials & Corrosion Control, Metallurgy & Corrosion Engineering, Material Selection & Properties, Welding Inspection Technology, Welding & Machining, Welding Procedure Specifications & Qualifications, Welding Safety, Fabrication & Site Inspection, Site Erection Quality Control, Welding & Non-Destructive Testing (NDE), Hydro & Pneumatic Testing, Degradation Mechanism & Consequence Analysis, Risk Management & Reduction, Risk Analysis, Risk Determination & Assessment, Equipment Integrity & Reliability, Failure Mode & Effect Analysis (FMEA), Reliability & Asset Management, Piping System, Process Hazard Analysis (PHA), Human Factor Analysis, Hazard & Operability (HAZOP), Layer of Protection Analysis (LOPA), QRA, SIL Evaluation, FTA, ETA and Safety & Environmental Assessment.**

During his Career Life, Mr. Gul has gained his practical and field experience through his various significant positions and dedication as the **Professional Mechanical Engineer**, an **International Welding Engineer (IWE)**, **Inspection Specialist, API 653 Project Control Coordinator, Technical Instructor/Trainer (API ASME), Nuclear Material & Equipment Inspector, QA/QC Head and Expert, API 653 & API 580 Authorized Inspector, Process Safety, Inspection and Integrity Expert** for numerous international companies like the Schlumberger, Tumas, Silvertchnik, Assystem, American Petroleum Inspector, Alltechmep, TUV Nord and Szutest.

Mr. Gul has a **Bachelor's** degree in **Mechanical Engineering** from the **Istanbul Technical University, Turkey**. Further, he is a **Certified Instructor/Trainer**, a **Certified Aboveground Storage Tank Inspector (API 653)**, a **Certified Risk Based Inspector (API 580)**, a **Certified Corrosion & Materials Inspector (API 571)**, a **Certified Pressure Vessel Inspector (API 510)**, a **Certified Piping Inspector (API 570)**, and holds a **Level 2** certificate in **Radiographic Testing (RT)** and **Ultrasonic Testing (UT)** by the **certification of Welds and Testing** and a **Certified Internal Verifier/Trainer/Assessor** by the **Institute of Leadership & Management (ILM)**. He has further delivered numerous trainings, courses, seminars, conferences & 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 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: Monday, 21st of July 2025

0730 – 0800	Registration & Coffee
0800 – 0815	Welcome & Introduction
0815 – 0830	PRE-TEST
0830 – 0930	Introduction to ASME PCC-2: Understanding the Scope, Purpose, & Framework of the PCC-2 Standard
0930 – 0945	Break
0945 – 1045	Overview of Damage Mechanisms: Identifying & Classifying Common Types of Damage in Pressure Equipment & Piping
1045 – 1145	Types of Repairs: Exploring Various Repair Methods Including Welded, Mechanical, & Non-Metallic
1145 – 1230	Material Considerations for Repair: How to Select Appropriate Materials Based on the Existing System & Type of Damage
1230 – 1245	Break
1245 – 1330	Welded Repairs: Basics of Welding Techniques Used in Repairs, Including Safety Considerations
1330 – 1420	Workshop: Assessing Damage & Selecting Repair Methods: Practical Exercises to Apply the Morning's Learnings on Sample Damaged Components
1420 – 1430	Recap
1430	Lunch & End of Day One

Day 2: Tuesday, 22nd of July 2025

0730 – 0830	Detailed Procedures for Welded Repairs: Step-By-Step Guide to Welded Patches, Box Enclosures, & Sleeve Repairs
0830 – 0930	Calculation for Welded Repairs: Real-Life Calculations for Designing Fillet Welded Patches & Sleeves
0930 – 0945	Break
0945 – 1045	Mechanical Repairs Overview: Introduction to Clamps, Sleeves, & Other Mechanical Methods
1045 – 1145	Guidelines for Temporary & Permanent Mechanical Repairs: Differentiating Between Repair Types & Choosing the Correct Approach



1145 – 1200	Break
1200 – 1420	Safety & Quality Assurance in Welding: Ensuring Proper Safety Measures Are Followed & Quality Standards Are Met During Welding
1420 – 1430	Recap
1430	End of Day Two

Day 3: Wednesday, 23rd of July 2025

0730 – 0830	Nonmetallic & Bonded Repairs: Techniques for Using Nonmetallic Materials to Repair Piping & Equipment
0830 – 0930	Design & Application of Engineered Wrapping: Guidelines for the Application & Design Considerations
0930 – 0945	Break
0945 – 1045	Examination & Testing of Repairs: Methods & Techniques for Testing Repaired Equipment to Ensure Functionality & Safety
1145 – 1200	Break
1200 – 1300	Set Acceptance Criteria & Review Temporary Repairs: Defining Criteria for Acceptance of Repairs & Reviewing Temporary Repair Methods
1300 – 1420	Case Studies: Real-Life Examples of Nonmetallic Repairs: Analysis of Past Repair Cases to Understand Challenges & Solutions
1420 – 1430	Recap
1430	Lunch & End of Day Three

Day 4: Thursday, 24th of July 2025

0730 – 0830	Choosing Between Temporary & Permanent Repairs: Criteria & Decision-Making Processes for Selecting the Type of Repair
0830 – 0930	Finalizing Repair Plans & Documentation: How to Document Repair Processes & Final Checks Before Implementation
0930 – 0945	Break
0945 – 1100	Workshop: Designing & Calculating Temporary Repairs: Participants Use Spreadsheets to Calculate & Design Temporary Repairs Based on Real Parameters
1100 – 1200	Guidelines to Prevent Damage During Repair: Techniques to Minimize Additional Damage During the Repair Process
1200 – 1215	Break
1215 – 1230	Review & Approval of Repair Methods: Process for Reviewing & Getting Approval on Selected Repair Methods
1230 – 1300	Final Examination & Course Wrap-Up: A Comprehensive Test to Assess Participants' Understanding & A Feedback Session to Conclude the Training
1300 – 1315	Course Conclusion
1315 – 1415	COMPETENCY EXAM
1415 – 1430	Presentation of Course Certificates
1430	Lunch & End of Course




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 welding inspection using the “E-Welding & Fabrication”, “PV Elite”, “CAESAR II”, “PIPESIM”, “AutoPIPE”, “PIPE-FLO”, “Nozzle-Pro” simulator, “American Welding Society (AWS) Tool Kit” and “Structural Weld Replica Kit” suitable for classroom training.

Welding & Fabrication

Advanced E-Learning Programme

Aligned to National Occupational Standards








Disclaimer

Please read carefully the following Agreement. Once you have read this agreement and in order to access this Product you must click on 'I AGREE'.

By using the Product, the Licensee ("You"), accepts all the terms and conditions of this Agreement. If you do not agree to the terms and conditions of this Agreement, please do not use the Product.

1. Skills2Learn grants You a non-exclusive licence to use the Product provided you agree to the terms and conditions of this Agreement;
2. This Product is for your personal, institutional and non-commercial use. You may not modify, copy, distribute, transmit, display, perform, reproduce, publish, sub-licence or create derivative works from this Product or any portion thereof;
3. The non-exclusive licence to use the Product is granted to one institution per Product and without

I AGREE
I DO NOT AGREE
QUIT


6: MIG Welding, 3: The Welding Process

Page 8 of 10

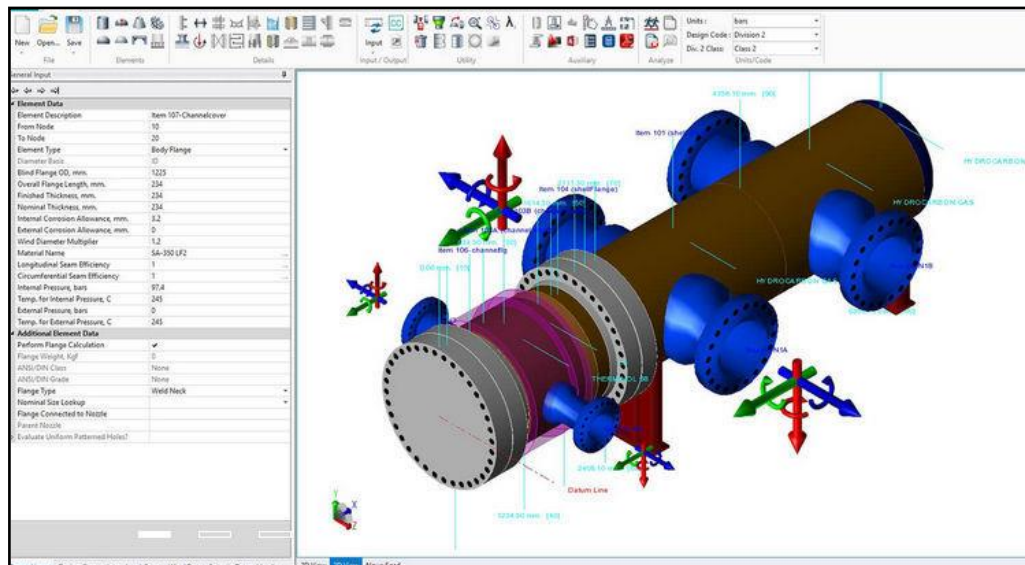
Menu
Back
Next
Replay
Audio
Transcript
Glossary
Zoom
Help
Quit

Re-Instate the Work Area

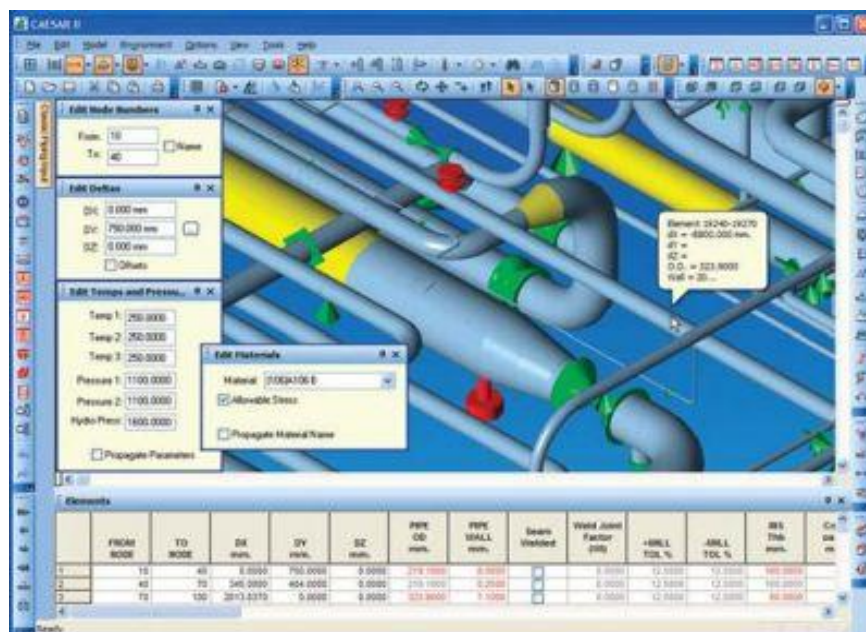
- Equipment is closed down and turned off



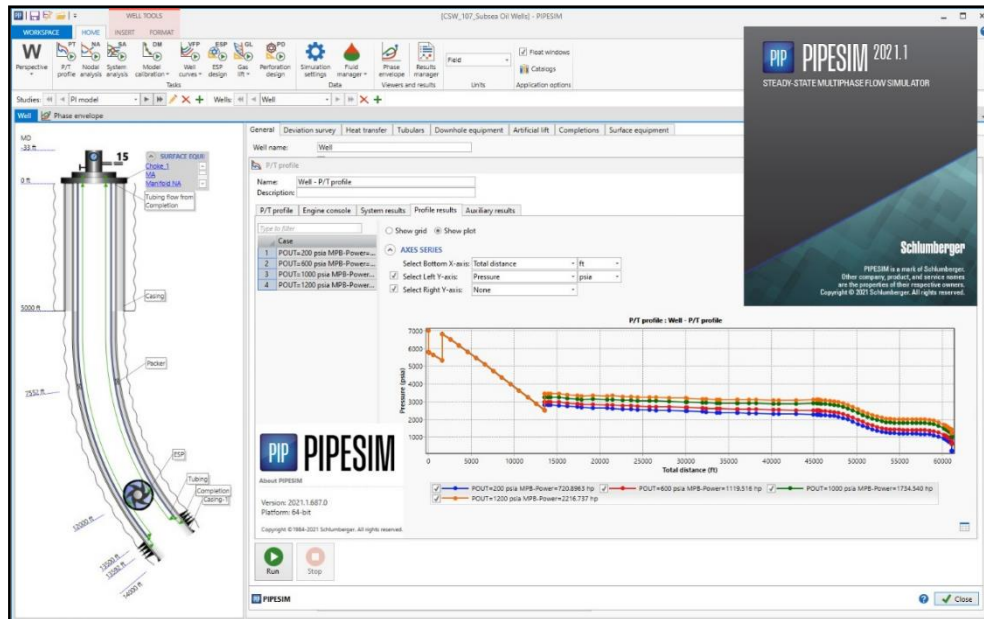
E-Welding & Fabrication



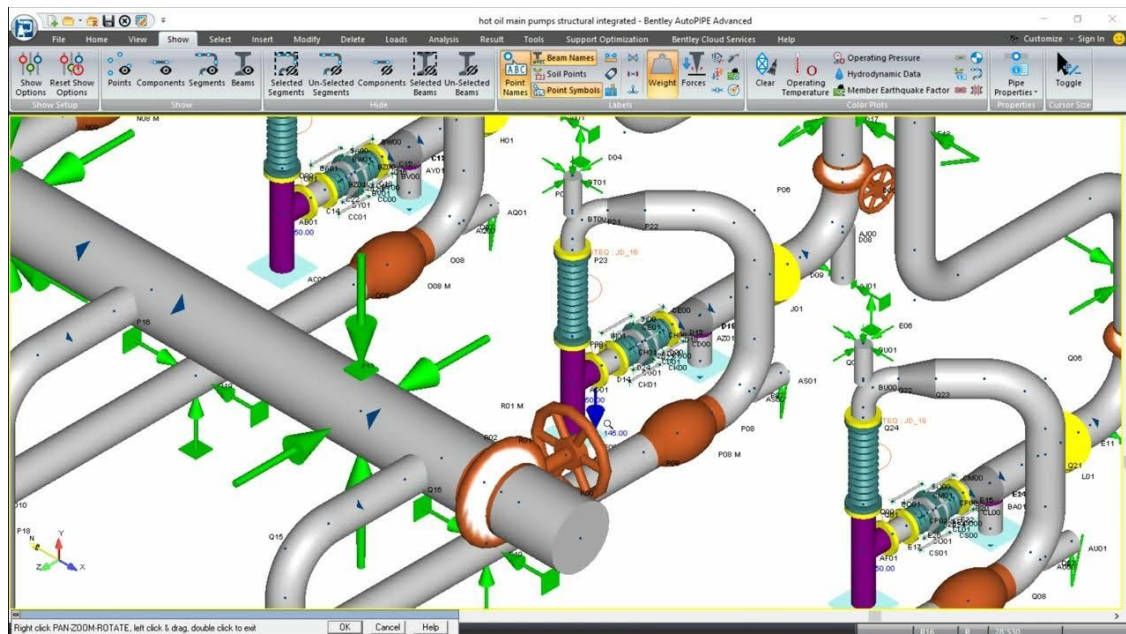
PV Elite



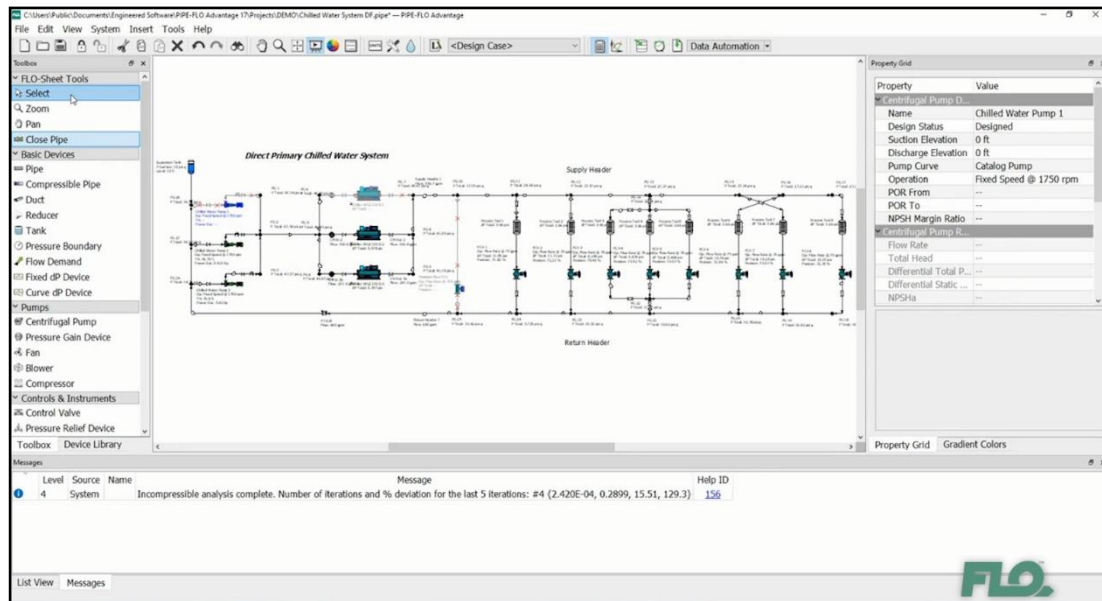
CAESAR II



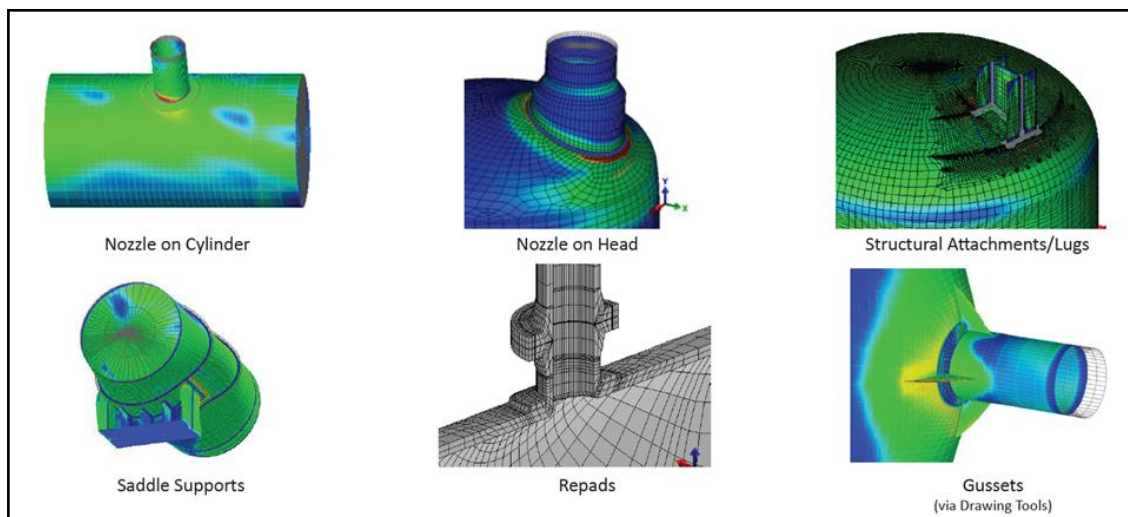
PIPESIM



AutoPIPE



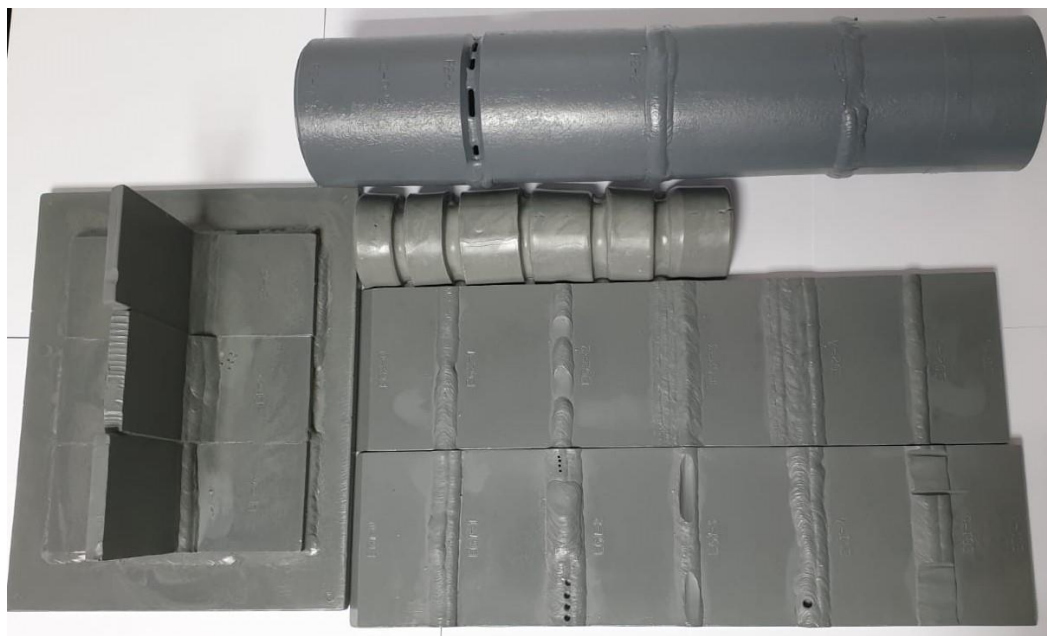
PIPE-FLO



NozzlePRO



AWS Tool Kit



Structural Weld Replica Kit

Course Coordinator

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