



arveng
training & engineering



Training

• Technical training in engineering.



• Tailored and practical itineraries

• Authorized center



Engineering

• Mechanical equipment design (piping, static equipment,...)

• Specialized studies (finite element analysis, fatigue, creep, useful life analysis, ...)

• Technical assistance (Root cause analysis, forensic engineering, fitness for service...)

Our clients' references and what they say about Arveng are our best introduction:

- + Experience
- + Technical qualification
- + Commitment
- + Agility



Ask for
references!



ABENGOA

SACYR

INEOS

idom

Applus⁺

SENER

CEPSA

IBERDROLA

REPSOL

galp

acciona

PUCP

CRODA

Ingeteam

eni

BUREAU VERITAS

ADNOC

HAMON

KREAN

TÜV SÜD

lointek

asesa
asfaltos españoles, s.a.

bp

MEDGAZ

Air Liquide
creative oxygen

wood.

DISA

TECNICAS REUNIDAS

SGS

Fertiberia

sarralle

ghi
SMART FURNACES

HEXION™
Responsible Chemistry

TSK

sikla

Naturgy

GRUPO NAVEC
CREAMOS INDUSTRIA

Petronor

GASCO
GAS EQUIPMENT & SERVICES CO., QATAR LTD.

SOCAR

ATLANTIC COPPER

SAINT-GOBAIN

Petroperú

VEOLIA

FREEPORT-McMoRAN

Worley
energy | chemicals | resources

BRENNTAG

DU PONT

EP PETROECUADOR

Technip

vidrala

سبكيم
Sipchem
EXCELLENCE everywhere

BELLMER

الصحراء للبتروكيماويات
sahara petrochemicals

BASF
The Chemical Company

edf ENERGY BARRICK

TAMOIN

Layher

“There is a lack of qualified personnel...”

“My team doesn’t have enough time...”

“We have distributed teams...”









“Our company has very specific needs...”

“The Engineering is constantly evolving. How do we keep updated?”



Training

Our training solutions:

-  In-person
-  Virtual
-  Self-guided
-  Tailored
-  Express courses
-  Webinars
-  Master program
-  Training consultation



Authorized Training Provider

Since 2020 we are the only Training Center in Spain that has the backing of **ASME** (American Society of Mechanical Engineers), a world-leading organization in the field of mechanical engineering, with more than 85,000 members and present in more than 135 countries.

Recognition to our trajectory and commitment

Training | Some of our courses...



Piping
Systems

ASME B31-Design of Piping Systems
Piping **Stress & Flexibility Analysis**
Design of **Supports**
Piping **Class**



Instrumentation
& Control

Functional Safety: **SIL**
Instrumentation Design
HAZOP Analysis
Control and pressure safety **valves**



Mechanical
Equipment

ASME VIII-Design of Pressure Vessels
API 650-API 653 Storage Tanks
TEMA-Design of S&T Heat Exchangers
Rotating equipment



Studies &
Projects

Project Planning and Control
Introduction to Industrial Projects
Industrial Projects Terminology



Metalurgy &
Materials

Materials Selection
ASME II-Materials
Materials for special services



Process
Engineering

Process Equipment Design
Piping & Instruments Diagram P&ID
Process Engineering
Hydraulic calculations in Engineering



Welding &
Inspection

Welding & Non-Destructive Examination
ASME IX-Welding Calification
API 510 | 570 Equipment Inspection
Mechanical Equipment Inspection: **QC**



Hydrogen

H2 - Fundamentals
Hydrogen Technologies
Design of **piping systems ASME B31.12**
Design of **pressure vessels H2**

Training | Training modalities

High-quality engineering training courses: classroom, online and tailored training. More than **250 classroom courses**, **1200 online courses** and over **65 in-company sessions**.

Our training activities have benefited over **4.500 professionals**. This is our greatest pride and our best letter of recommendation.

Live | Classroom

Through the **proximity** of the classroom, we encourage the participation of the attendees, promoting the resolution of real cases.

Live | Virtual

Live practical sessions through **videoconference** (Teams, Zoom), emphasizing lessons learned.

Self-guided

Self-directed training, the participant starts at their own convenience, progresses in their own time and at their own pace.





In-Company | Tailored

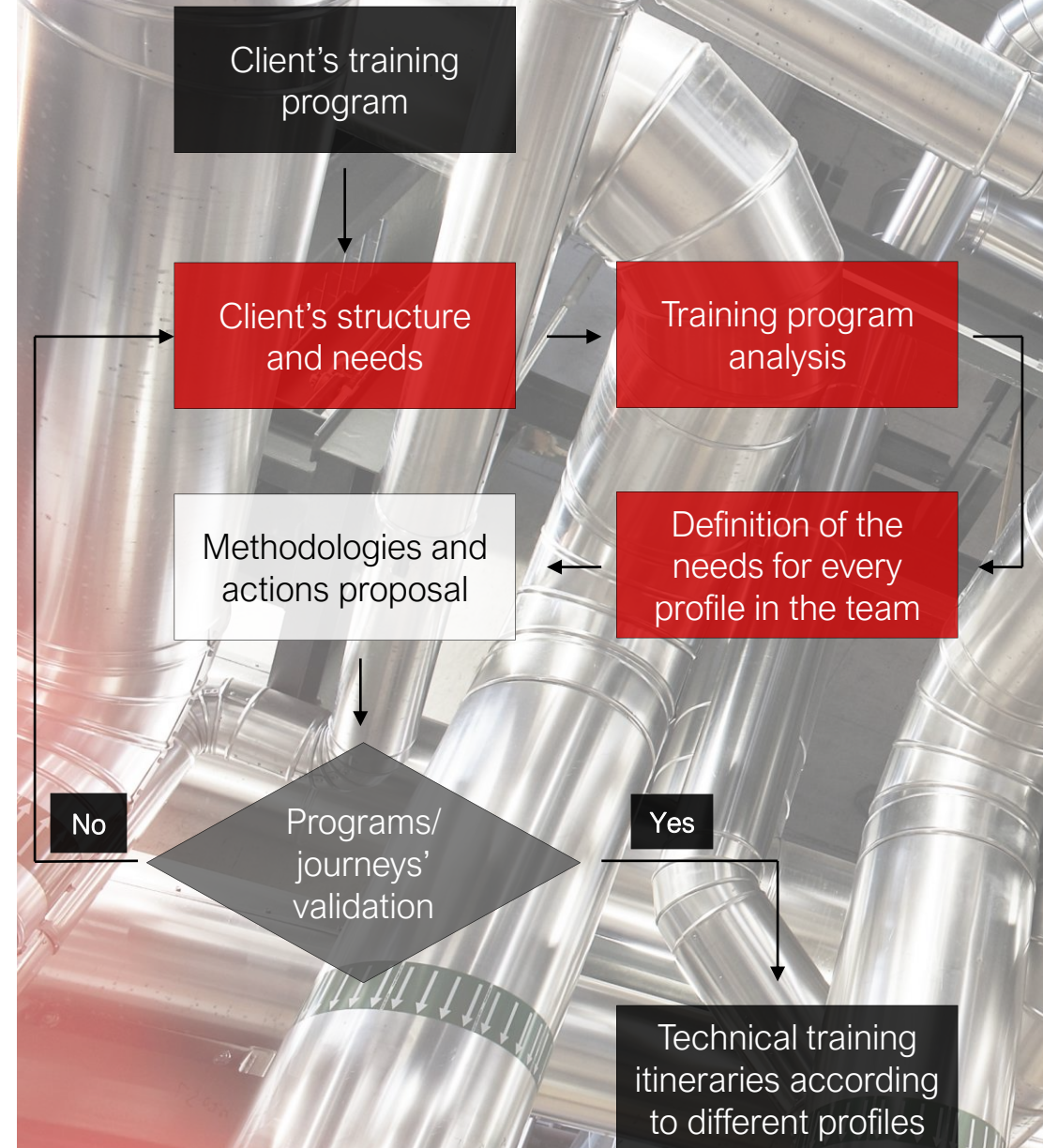
We customize our training programs to every requirement, **solutions for every need**.

Training | Technical training itineraries

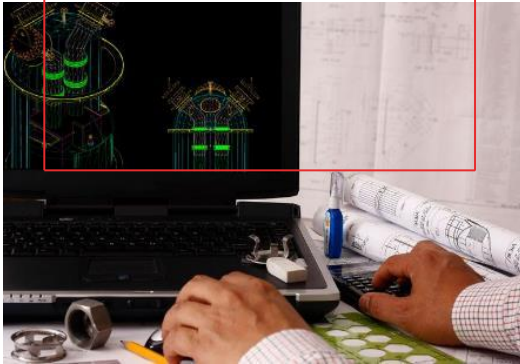
The **evolution of technology** requires the constant **updating** of work teams and **technical training itineraries**..

Why can we **help** you to update your training programs?

-  We are training specialists
-  20+ years developing engineering
-  Expertise with different modalities
-  We are agile and flexible

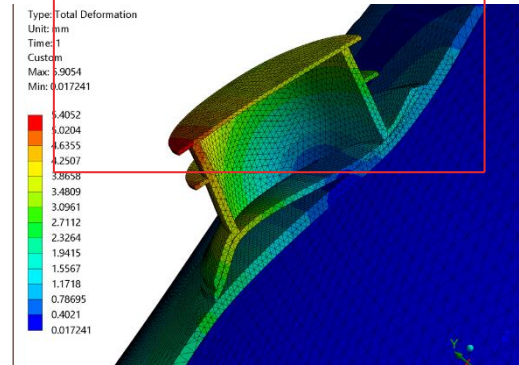


Mechanical Equipment Design



Pressure Vessels
Piping systems
Heat Exchangers
Storage tanks

Specialized Studies



Finite Element Analysis
Creep/Fatigue Analysis
Useful life analysis
CFD Analysis

Technical Assistance



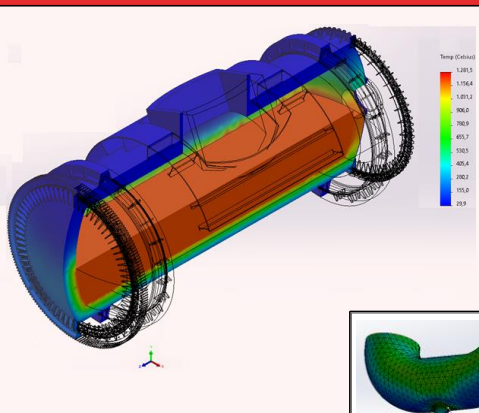
Root cause analysis
Forensic Engineering
Fitness for Service Assessment
Asset Integrity Management

We develop **tailored** engineering **solutions** for our clients. We are **agile** and **flexible**, and our **added value** is in the **high technical qualifications** of our professionals.

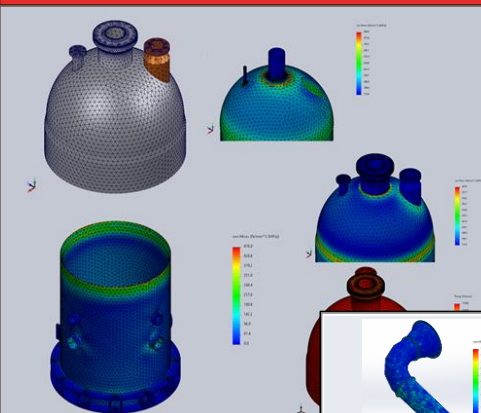
Your projects are our projects, we hope to accompany you...

Specialized Studies | FEA, Fatigue, Creep, CFD...

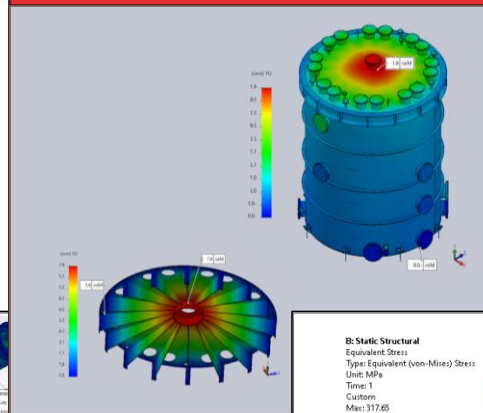
Thermal/Mechanical analysis of the drive train of four (4) converters-FEA



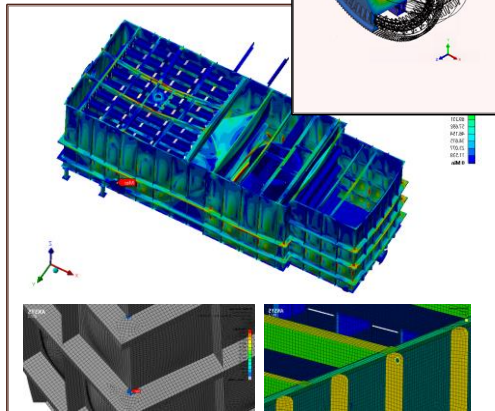
Review of Calcs, DWGs, Material Specifications and Special Studies-7 PV



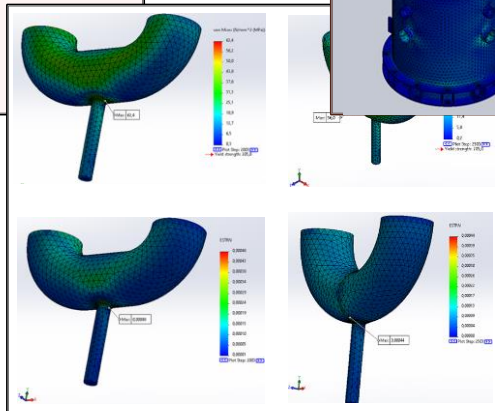
Mechanical Calculation of Storage Tank | Finite Element Analysis



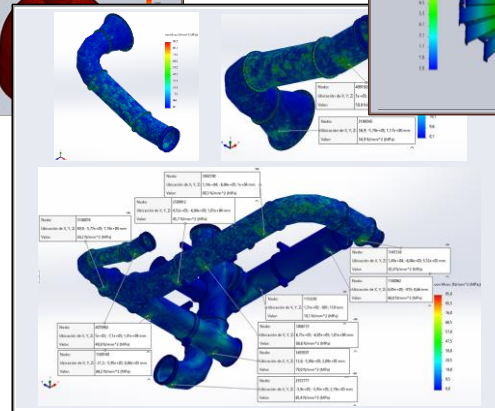
Some of our projects...



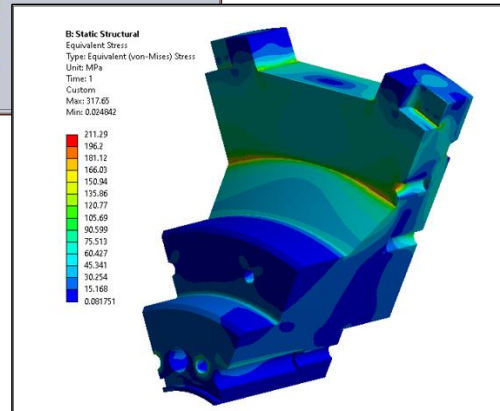
Design verification of a Water Storage Tank | FEA - Eurocode 3



Creep and Fatigue Analysis for a 180° curve in a crude oil furnace-FEA



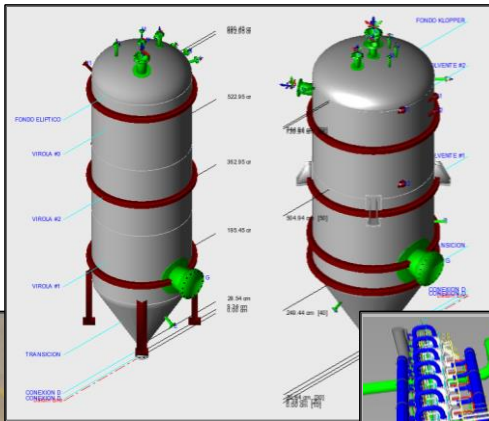
Design verification chimney and ducts | FEA & ASME VIII



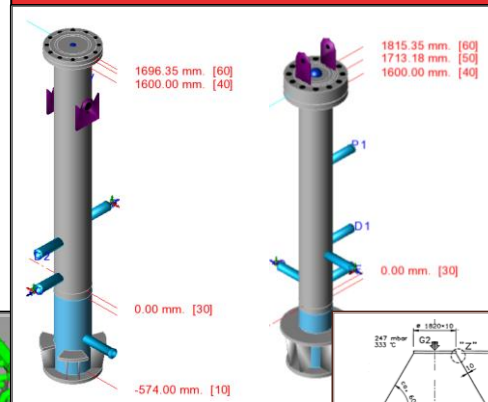
Flange analysis: local failure, plastic collapse, fatigue-ASME VIII-2 + FEA

Mechanical Equipment Design & Calculation | Pressurized systems

Calcs & Verification of 2 Pressure Vessels | ASME VIII Div.1



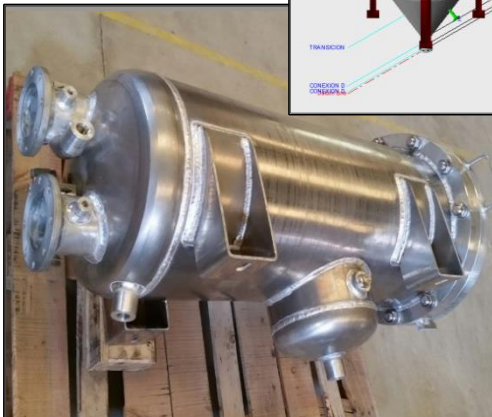
Design & calculation of seven (7) Pressure Vessels (filters) | EN13445



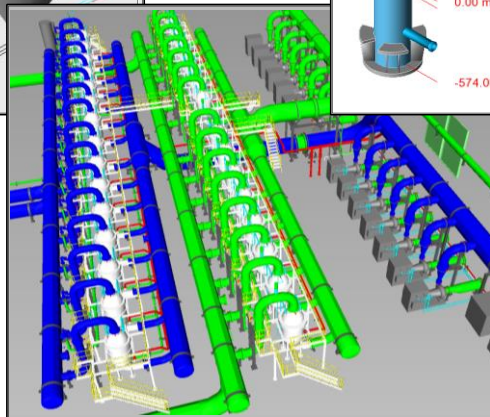
S&T heat exchanger bellow replacement-TEMA + ASME VIII-1



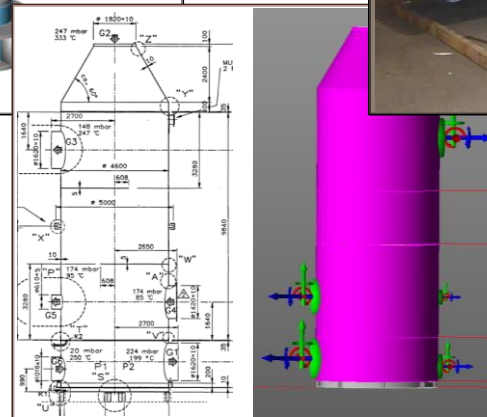
Some of our projects...



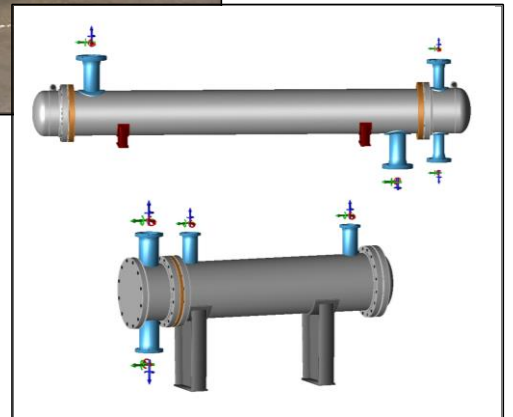
Aluminium Pressure Vessel Design and Calcs | EN 13445



Stress & Flexibility Analysis, Desalination Plant - GRP | ISO 14692



Calcs & Verification of large S&T Heat Exchanger | EN 13445



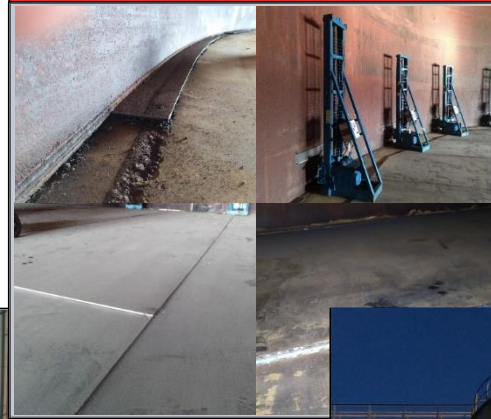
Design & Calcs of S&T Heat Exchangers | TEMA + ASME VIII-1

Technical Assistance | Forensic engineering, Fitness for Service, Failures...

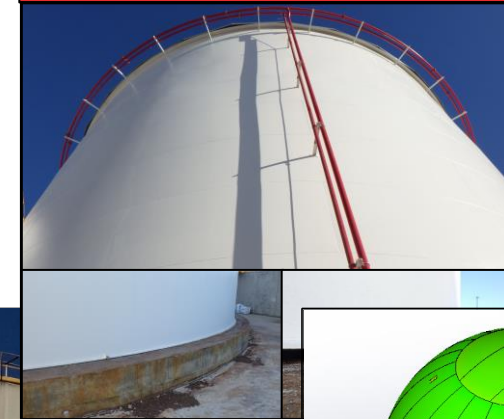
Analysis of the collapse of the floating roof of a storage tank



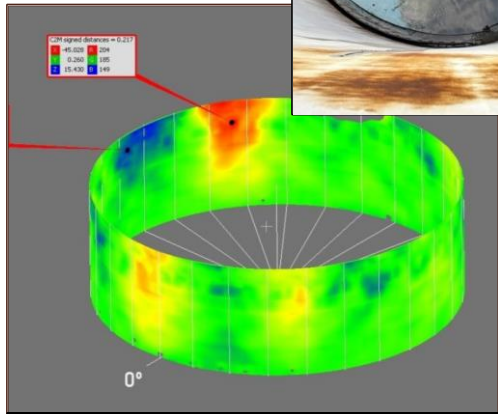
Supervision of Storage Tank Bottom Replacement | API 650



Bulging Deformation Analysis of three Storage Tanks | API 650 – API 653



Some of our projects...



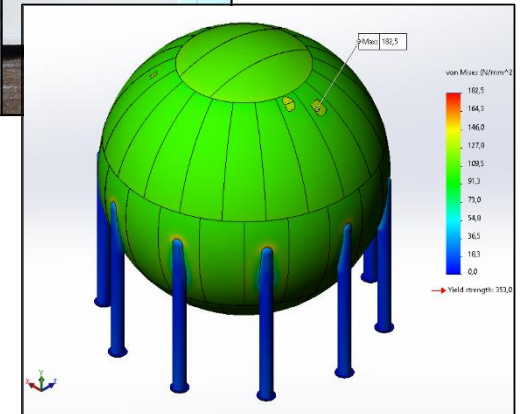
Aboveground Storage Tank Validation of dimensional tolerances – API 653



Forensic Engineering | API 650 Storage Tank Failure



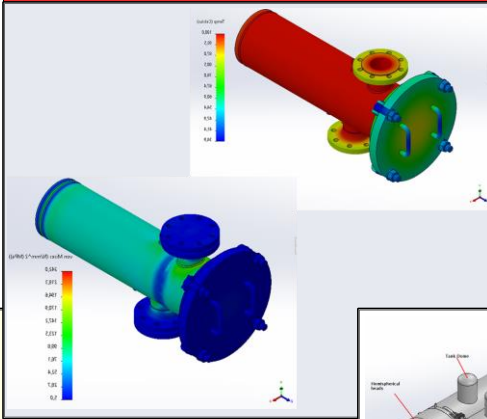
Storage Tank Decommissioning Job Specification



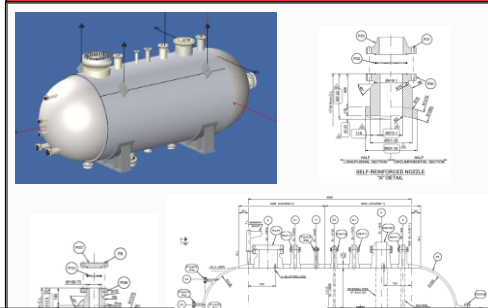
Development of an FFS study for sphere | API 579-1 / ASME FFS-1

Applications for H2 and similar services

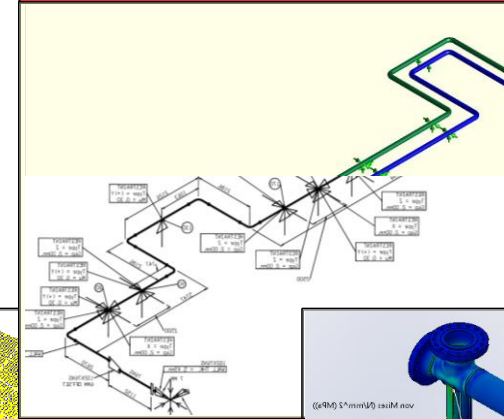
Design verification of an Oxygen filter | FEA & ASME VIII



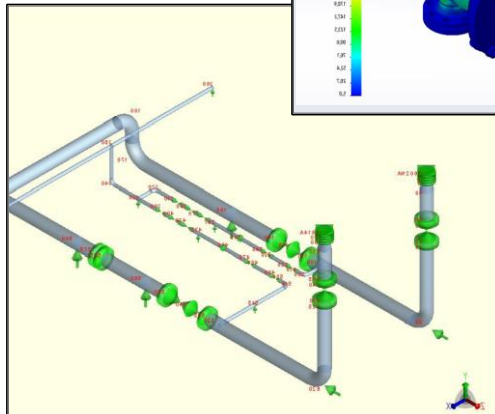
Detailed engineering of a H2 reactor and 4 Pressure Vessels | ASME VIII-2



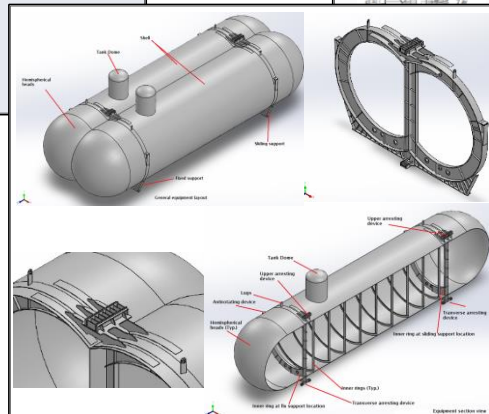
Stress, Flexibility & Supports | Steam Piping System-ASME B31.1



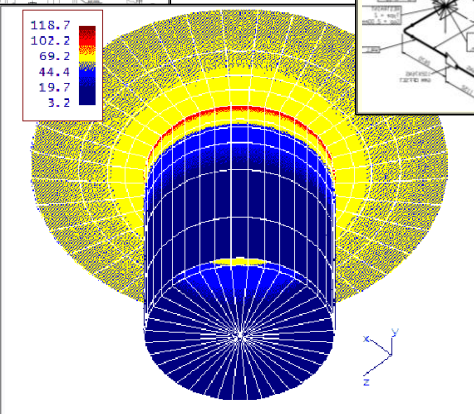
Some of our projects...



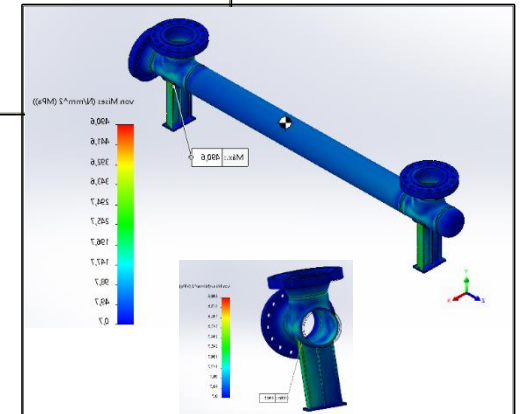
Stress & Flexibility Analysis of 14 Piping Systems | ASME B31.3



Preliminary Design of 6000 m3 Bilobular Tank for LPG / Ammonia



Design & Fatigue Verification of H2 Reactor | ASME VIII Div.2 + FEA



Stress analysis of a Shell & Tube Heat Exchanger | ASME VIII-2 + FEA



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