### Welcome to a presentation of



One Stop Solution for High Quality Engineering and Fabrication.





### OUR VISION

One Stop Solution for High Quality Engineering and Fabrication

### OUR MISSION

To deliver cost-effective engineering and fabrication with Norwegian and international quality standards

# OUR CORE VALUES

Trust
Innovation
Excellence
Loyalty



### **Our Business Areas**



#### **Engineering**

#### **Fabrication**

### Sustainable Product Development



Techvalue Norway has been working with engineering since the founding in 2010.

Both through own contracts and through the subsidiary company Focus Engineering this has been a main activity and will be a main activity for

**Techvalue Norway** in the coming years.

Techvalue Norway has been working with fabrication in Vietnam since the founding of Focus Construction 2015.

10 years of experience in Vietnam has brought essential experience about delivery of high quality products following Norwegian and international standards. Product Development is a continuously ongoing activity in

Techvalue Norway.

#### Main focus points:

- \* Green technology
- \* Smart technology
- \* Developing countries
  - \* Helping people in poverty

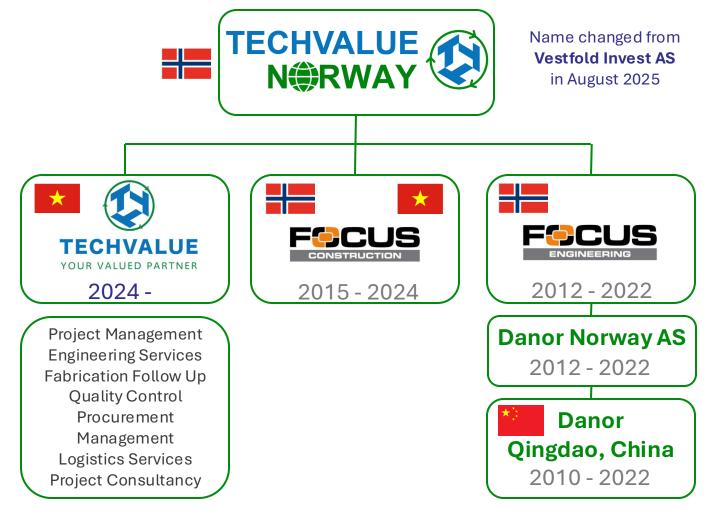
\* United Nations
Sustainability Goals





# **Techvalue Norway Ownership History Engineering and Fabrication**









## **Code of Conduct**



# Techvalue Norway and the subsidiaries are strictly following the Code of Conduct within our companies

# Our Code of Conduct is covering very important areas as:

Health and Safety
Harassment and Violence
Discrimination
Human Rights and child labor
Bribery
Ethical Relationships
Money Laundering
Conflict of Interest, honesty and trust
Privacy
Work/Life Balance
Corporate Social Responsibility
Copyright and Intellectual Property (IP)







# Achieving United Nation's Sustainability Goals



We leverage our engineering and fabrication competence for sustainable product development to achieve UN Sustainability Goals



Product development to help people in poverty



Renewable energy infrastructure technology



Aquaculture technology



Product development continuously ongoing



High quality healthy food through modern aquaculture technology



High focus on material and cost savings in design phase



Education and training of co-workers and suppliers



Involvement in green technology and sustainability





# History Timeline since the founding in 2010



### **Engineering & Fabrication**

Year	Activity
2025	Changed name from Vestfold Invest AS to <b>Techvalue Norway AS</b> Ongoing acquisition of engineering company in Vietnam Ongoing acquisition of fabrication company in Vietnam
2024	Established <b>Techvalue LLC</b> in Vietnam Sold Focus Construction AS
2022	Focus Engineering AS (FOE) taken over by Techouse, Stavanger Acquisition shares in Focus Construction AS
2015	Established Focus Construction (FOC) in Vietnam
2012	Established Focus Engineering (FOE) in Norway
2010	Established in engineering office in Qingdao, China





# Techvalue – Our subsidiary company in Vung Tau, Vietnam







#### **Office Address Norway:**

#### **Techvalue Norway AS**

Herstadåsen 7 3140 Nøtterøy Norway

Contact: hhn@techvalue.no

#### **Office Address Vietnam:**

#### **Techvalue Norway LLC**

02 Nguyen Huu Canh street, Rach Dua ward, Ho Chi Minh Viet Nam.

Contact: hhn@techvalue.no







# Quality Assurance and Quality Control



#### **Quality Assurance**

Techvalue Norway and our subsidiary company Techvalue (Vietnam) has a complete QA System according to ISO 9001:2015

A complete set of Check Lists within all engineering disciplines has been established

#### **Quality Control**

**Techvalue Norway** has own developed systems for following up fabrication in addition to the fabricators own Quality Control Systems

Techvalue Norway establish clear procedures and Check Lists whenever required in order to close all gaps of the Quality Control









# **Techvalue Norway's Solutions**



Engineering	Fabrication (Vietnam)	Quality Management	Procurement & Logistics	Project Consultancy
All relevant disciplines covered	Delivering wide range of fabrication from machined products to Oil & Gas Modules.	Quality Audits  Quality Inspections & Fabrication Follow Up.	International & domestic Procurement. (Material, equipment)	Comprehensive Technical Service – representing foreign companies in Vietnam.
Wide experience from landbased and oil & gas industry.	Own developed systems for following up all fabrication.	Quality Documentation	Import and Export Services	Sales & Marketing – expand your business in Vietnam
			Value added services operational solution own local rep	s in Vietnam without
Norwegian and Vietnamese senior engineers and engineers	Trusted partner network with highly competent fabricators.	Wide experience from engineering and fabrication in Asia	Close gaps within language, cultural, commercial and technical aspects between Vietnam and overseas	

Cost optimization

Manage threats, mitigate risks

Remove constraints









# **Engineering Services**





Our Engineering Services will in general be performed at low cost in our offices in Vung Tau, Vietnam

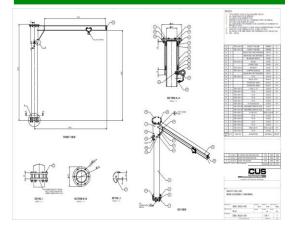




# Our Engineering & Fabrication Services



### **Engineering**



- Detail Design/Engineering
- 3D Modelling
- Strength Analyses
- Drawing Production
- English language spoken by all local engineers

#### **Fabrication**



- Own designed products
- Client designed products
- Steel Structures
- Piping/Pipe spools
- Mechanical equipment
- High precision machining
- Carbon Steel
- Stainless Steel

# Fabrication Follow Up



- Quality Control and Surveys
- Highly skilled inspectors
- Covering all main disciplines
- English language spoken by all local inspectors





# **Disciplines Covered**



### **Engineering**

**Engineering Management** 

**Process** 

Layout

Piping

Structural

Architectural

Mechanical

Pipe Supports

Fire Fighting/Safety

Electrical

Instrumentation

**Automation** 

Civil

Planning

**Document Control** 

### **Fabrication Follow Up**

Quality Control Management

**Construction Management** 

**HSE** Inspector

Welding Engineer/Inspector

Piping Inspector

Structural Inspector

Surface Treatment/Coating Inspector

Architectural Inspector

Mechanical Inspector

Mechanical Completion

NDT Inspector

**Electrical & Instrument Inspector** 

**Planning** 

**Final Documentation** 

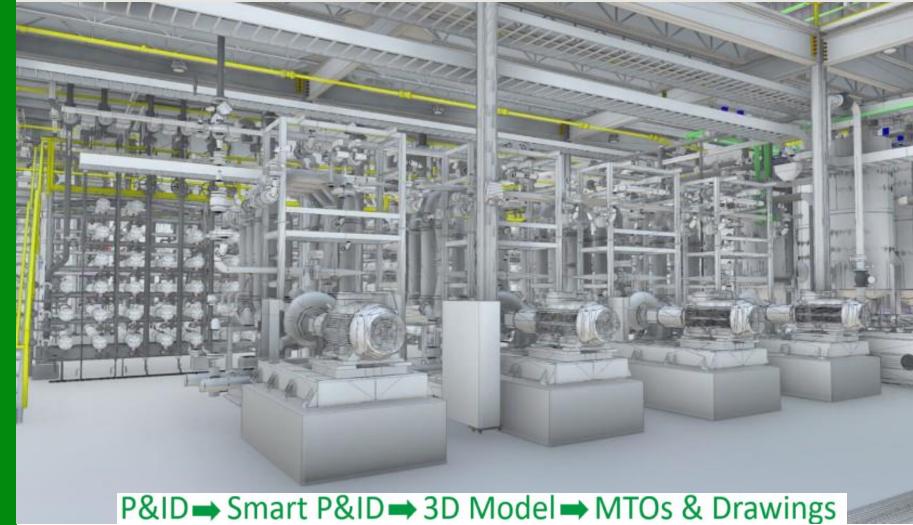
**Document Control** 





# **Software Profile Autodesk Plant 3D**





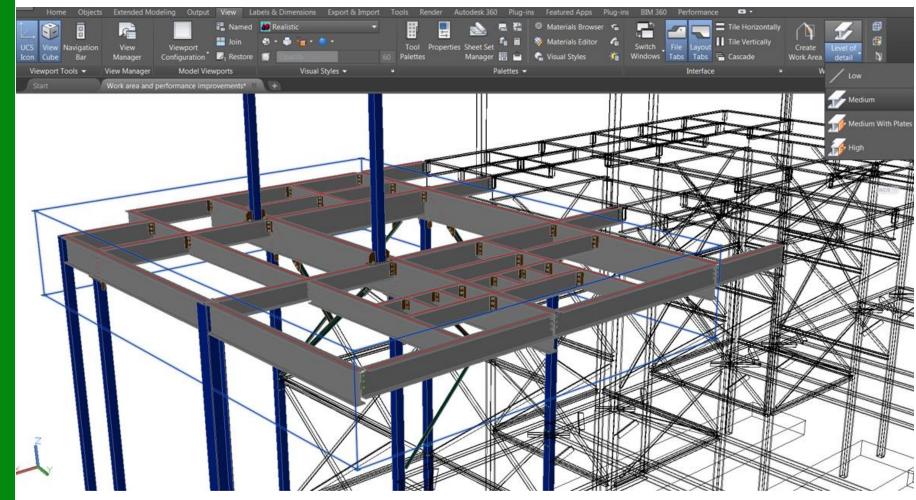






# **Software Profile Autodesk Advance Steel**



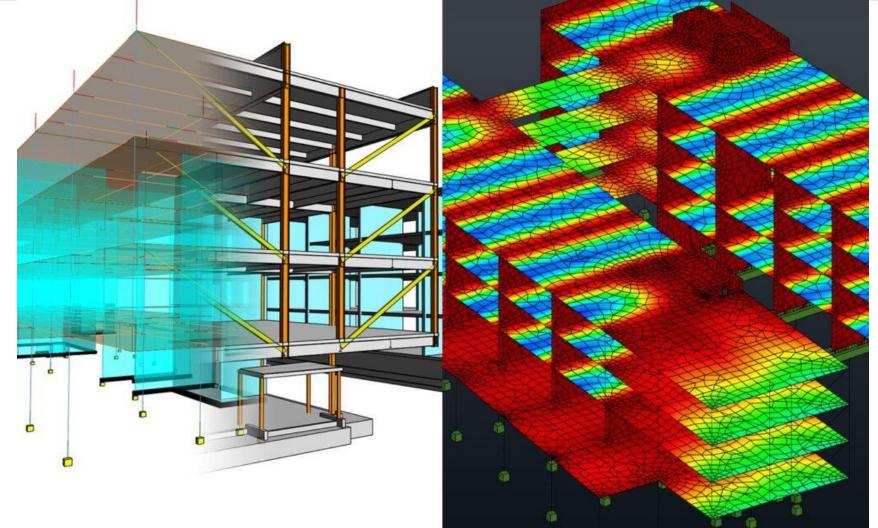






# **Software Profile**Robot Structural Analysis



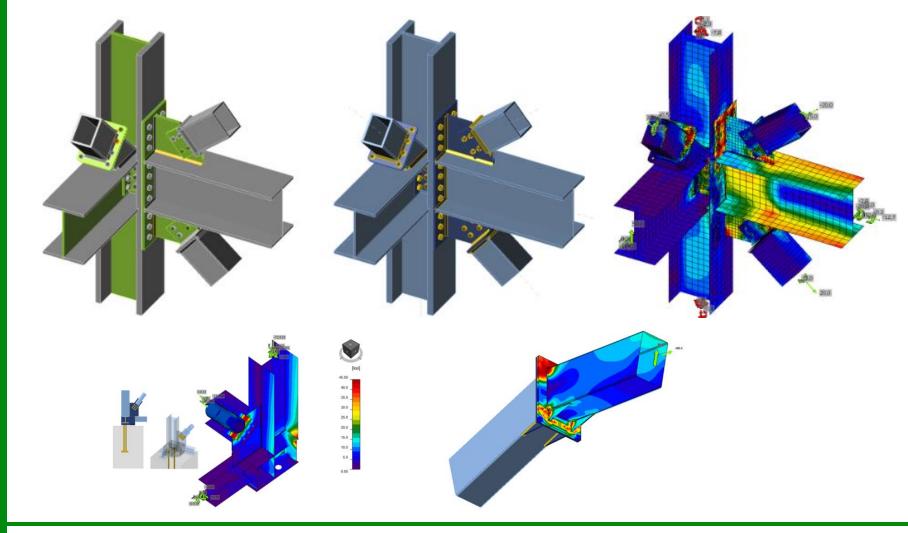






# Software Profile IDEA Statica



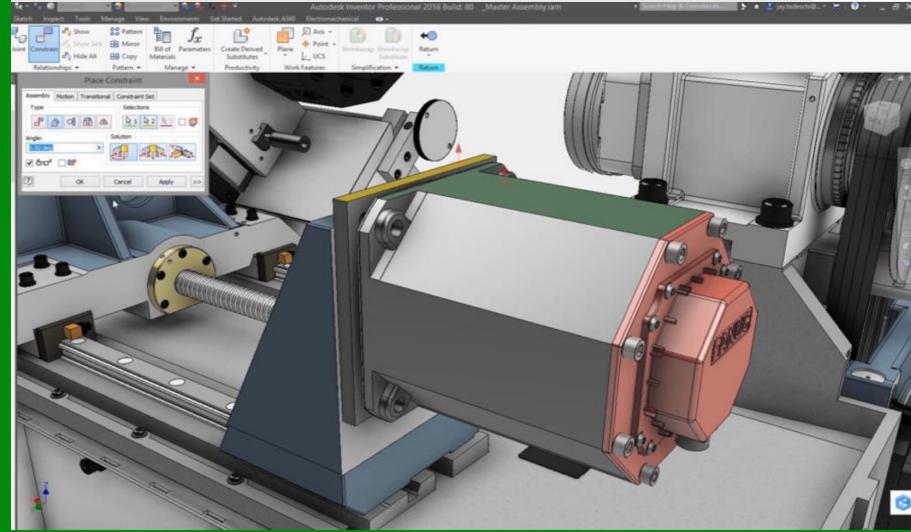






# **Software Profile Inventor**











# Engineering projects will be run under Techvalue Norway Management and the QA system created for smaller and larger projects



Engineering Check Lists				
TV-CL-001_Check List Template	TV-CL-015_Check List for Pipe Support Calculation			
TV-CL-002_Check List Isometric Drawings	TV-CL-016_Check List Architecture Drawings			
TV-CL-003_Check List Pipe Stress	TV-CL-017_Check List Architectural Design Report & Calculations			
TV-CL-004_Check List Structural Drawings	TV-CL-018_Check List for Piping Modelling			
TV-CL-005_Check List Mechanical	TV-CL-019_Check List for Equipment Modelling			
TV-CL-006_Check List Structural Analysis & Design Report	TV-CL-020_Check List for Structural Modelling			
TV-CL-007_Check List Safety	TV-CL-021_Check List for Structural Assembly Drawings			
TV-CL-008_Check List Electrical	TV-CL-022_Check List for Structural Part Drawings			
TV-CL-009_Check List Instruments	TV-CL-023_Check List for Structural Nesting Drawings			
TV-CL-010_Check List for Pipe Support Modelling	TV-CL-024_Check List for Structural Welding Map Drawings			
TV-CL-011_Check List for Pipe Support Drawings	TV-CL-025_Check List for Fabrication Follow Up			
TV-CL-012_Check List Structural Computer Analysis	TV-CL-026_Check List for Structural MTO			
TV-CL-013_Check List for Weight Control	TV-CL-027_Check List for General Arrangement			





# **Engineering & Fabrication Projects Setup for smaller/medium size projects**



#### **International**

#### Vietnam



# **CLIENT**





Together with our local cooperation partners

Engineering Management
Process
Layout
Safety
Piping
Structural
Mechanical
Architectural
Pipe Supports
Electrical
Instrumentation
Automation

Planning
Document Control

Quality Control Fabrication Follow Up

**Project Management** 







# Safe Caledonia Accommodation Modules

Year: 2012

#### **Detail Engineering Phase:**

Senior Structural Engineer Design and calculation of Grillage and Seafastenings

Sea Transportation Phase: Load Out Management at site in Estonia









#### **Lamson E-House**

Year: 2012 - 2013



Detail Engineering Phase:
Project Manager / Senior
Structural Engineer
Coordination towards
Kongsberg Maritime
Structural detail engineering
Mechanical handling
Weight Control

Fabrication Phase (Batam/Indonesia):
Assisting Site Manager

Lifting surveys at site in Singapore









#### Dana Western Isles FPSO

**Year:** 2011 – 2017

Structural engineering site representative at Cosco (Qidong) Offshore Co.,LTD in China during the detail engineering and construction phase from 2013 to 2017.

The scope of work was checking and guiding the Chinese structural engineers through the entire project until delivery including structural redesign of all Topside Modules.

High focus on weight control resulting in significant weight savings.









# **Sea Transport of Structures**

**Year:** 2014

Senior Structural Engineer

Design and calculation of Grillage and Seafastenings of very tall structures from Shipyard in China









#### **BWO Catcher E-House**

Year: 2014 - 2015

KONGSBERG

Senior Structural Engineer

Coordination towards Kongsberg Maritime

Structural detail engineering Mechanical handling Weight Control

Lifting surveys and site inspections at site in Singapore









#### **Ghana OCTP FPSO – E-House**

**Year:** 2015 – 2016

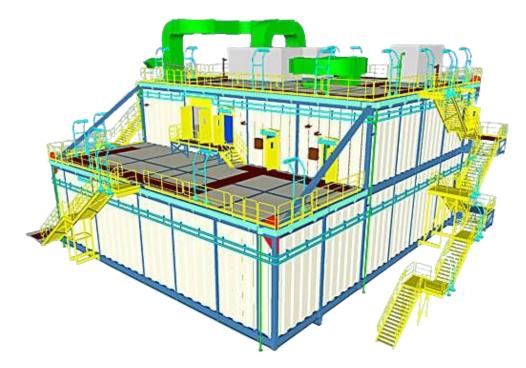
Senior Structural Engineer

Coordination towards
Kongsberg Maritime
Assisting towards end client
and fabricator.

Structural detail engineering Mechanical handling Weight Control

Lifting surveys at site in Singapore











#### **Cluster 7 E-House**

**Year: 2016** 

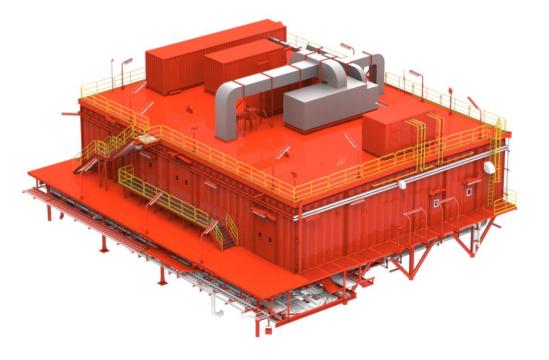
Senior Structural Engineer

Coordination towards Kongsberg Maritime Assisting towards end client and fabricator

Structural detail engineering Mechanical handling Weight Control

Lifting surveys at site in Singapore











#### **Sulphate Removing Unit (SRU)**

Year: 2017 - 2018

Senior Pipe Support Engineer

Design and calculation of Pipe Supports







#### **Golar Regas Conversion**

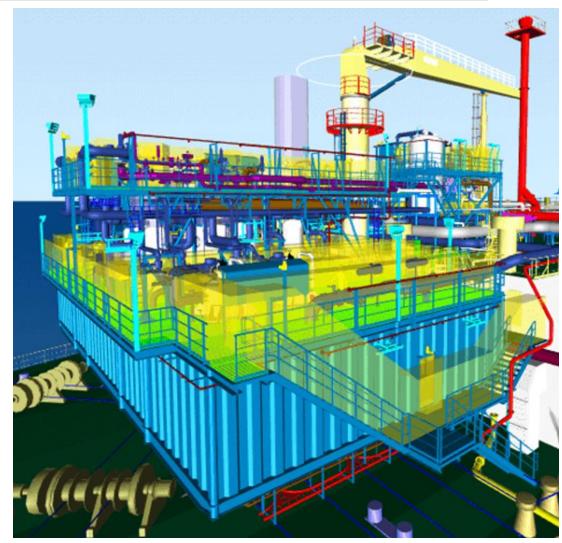
Year: 2017 - 2018

Senior Structural Engineer

Discipline Lead Pipe Supports

Discipline Lead Mechanical Handling

Discipline Lead Weight Control









#### **LNG Croatia Regas Conversion**

Year: 2019

Senior Structural Engineer
Discipline Lead Pipe Supports
Discipline Lead Mechanical Handling
Discipline Lead Weight Control







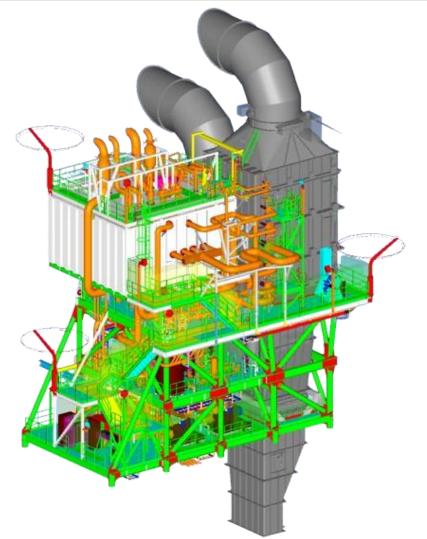


#### **Golar Gimi FLNG HRSG Modules**

**Year:** 2019 - 2020

Senior Structural Engineer
Discipline Lead Pipe Supports
Discipline Lead Mechanical Handling
Discipline Lead Weight Control

4 off modules









#### FPSO Blue Eagle EPC Process Topside

Year: 2019 - 2020

Senior Structural Engineer

Discipline Lead Pipe Supports

Discipline Lead Mechanical Handling

Discipline Lead Weight Control









# **LNG Tatiana Regas Conversion**

Year: 2019 - 2020

Senior Structural Engineer

Discipline Lead Pipe Supports

Discipline Lead Mechanical Handling

Discipline Lead Weight Control









# Anna Nery FPSO Gas Compression Modules

**Year:** 2020 – 2021

Senior Structural Engineer
Discipline Lead Pipe Supports
Discipline Lead Mechanical
Handling
Discipline Lead Weight Control

Design of Lifting Davits
Fabrication Lead for Lifting Davits
Responsible for certification and
documentation of davits

Following up engineering work at engineering office in China

Admin leadership of fabrication follow up team









# Anna Nery FPSO Utility Modules

**Year:** 2020 – 2021

Senior Structural Engineer
Discipline Lead Pipe Supports
Discipline Lead Mechanical
Handling
Discipline Lead Weight Control

Design of Lifting Davits
Fabrication Lead for Lifting Davits
Responsible for certification and
documentation of davits

Following up engineering work at engineering office in China

Admin leadership of fabrication follow up team





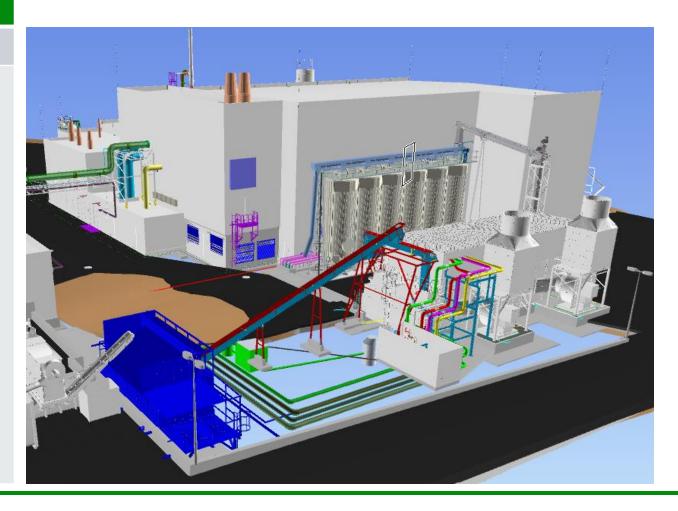




# Follum Biocarbon Pipe Supports

**Year:** 2025

Design
Strength Calculations
3D Modeling
Drawing Extraction
Fabrication Input







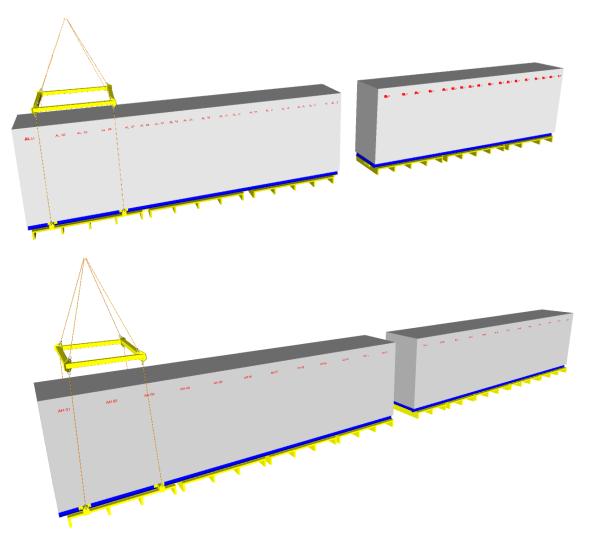
#### **Some Engineering Project References**



# Golar MKII FLNG SWBD Support Structures

**Year:** 2025

Structural Design
Strength Calculations
3D Modeling
Drawing Extraction
Design of Lifting Equipment
Transportation Pallets





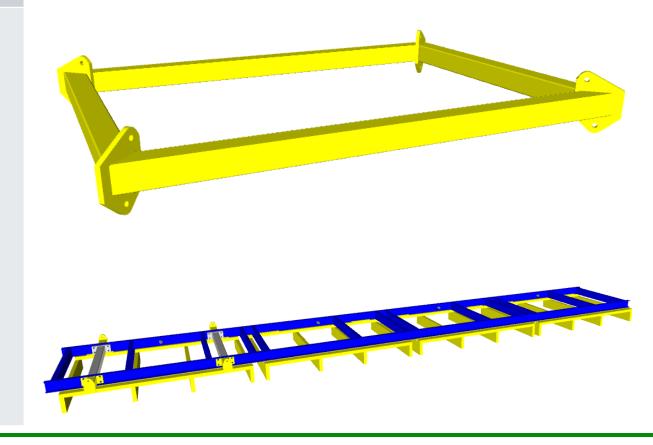




# Golar MKII FLNG SWBD Support Structures

**Year:** 2025

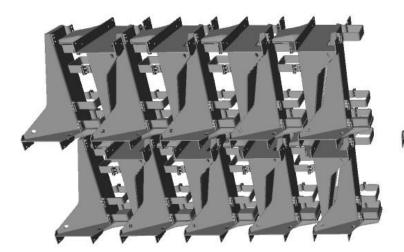
Structural Base Frames Lifting Equipment Transportation Pallets

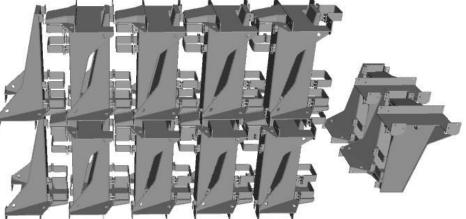


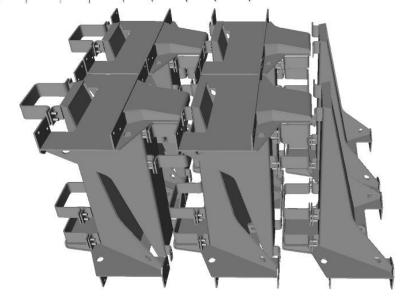










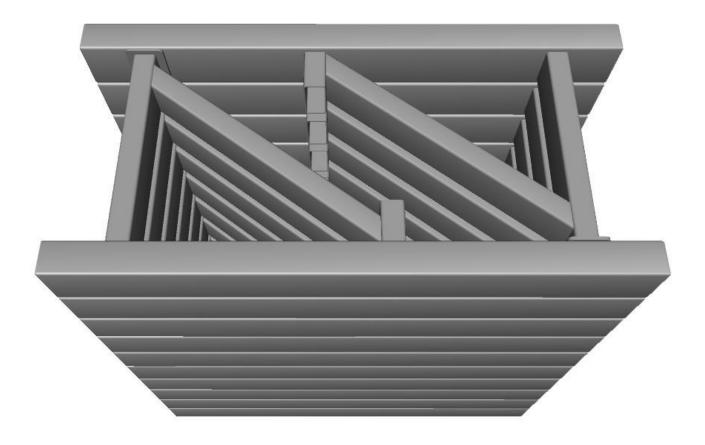


**Winch Supports** 







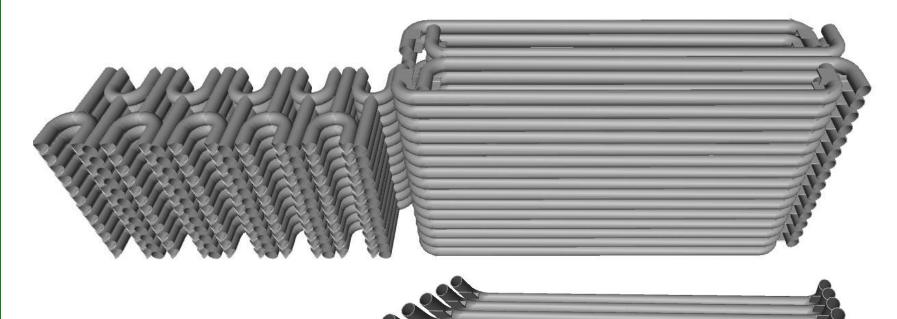


**Support Structures** 







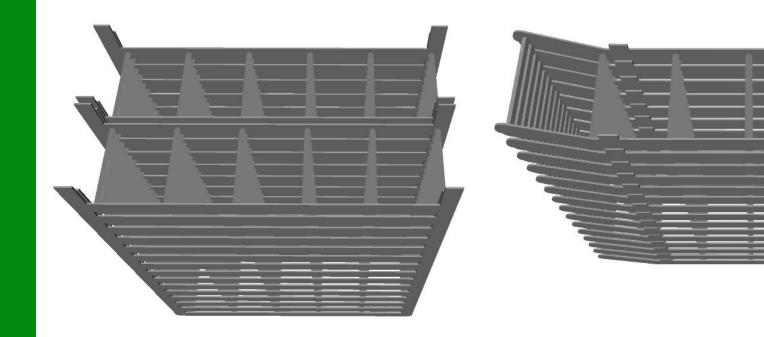


**Piping** 





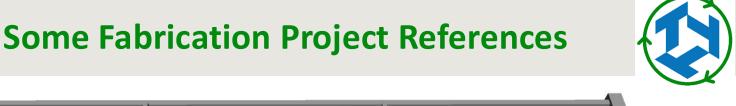


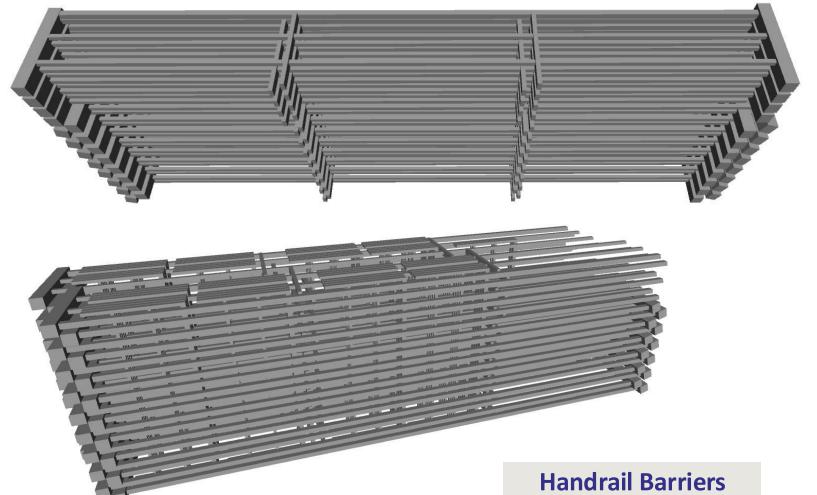


#### Ladders





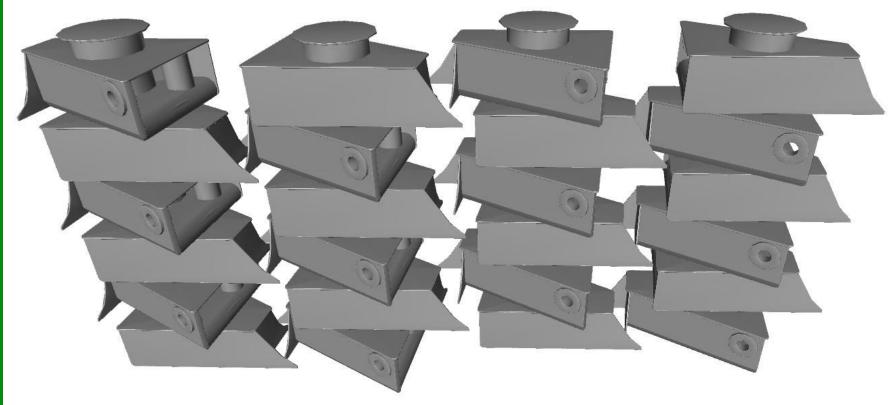










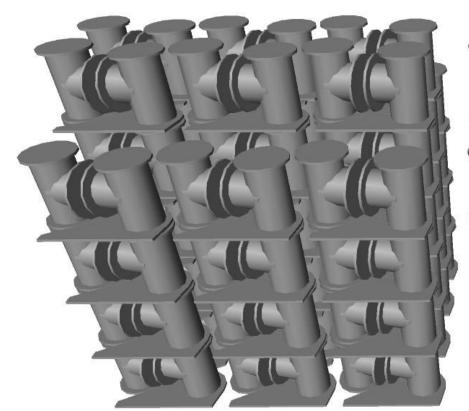


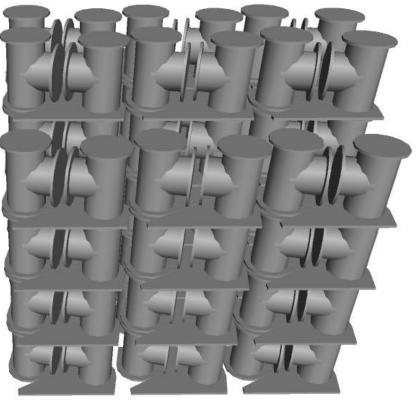
**Winch Connectors** 











#### **Bollards**

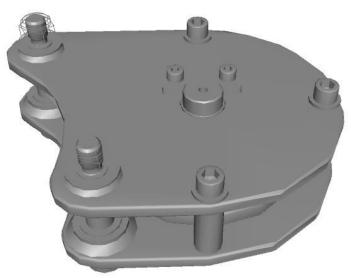






















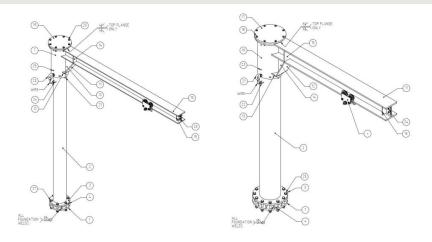


#### **Fairleads**















**Davits for Anna Nery FPSO** 









LxWxH: 4.6x2.2x2.1m

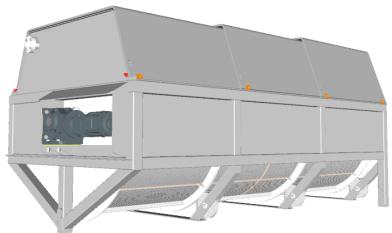
Weight: 3.0 Metric tonnes

Fabricated Units: 18

Material: Stainless steel – SS316L

Max. filter screen opening: 0.08 – 0.10 mm

Capacity TF-4017: Approx. 3200 m3/h



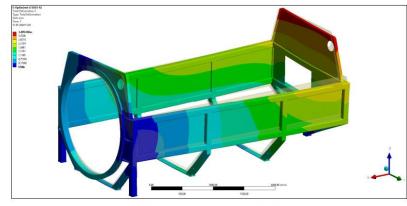


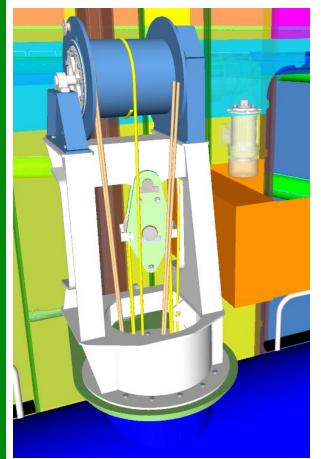
Fig. 4-11 Analysis model for the filter structure, showing the resultant displacement plot for the frame structure.

#### Filter for clening Sea Water

















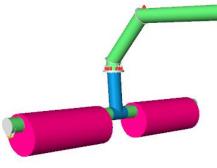
**Lifting System for Fish Cages including winches** 











Nozzles with Supports for Fish Cages

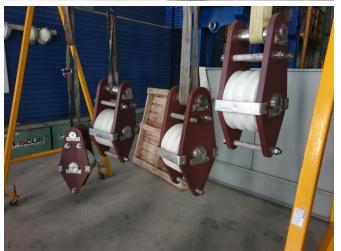














**Sheave Blocks and Outfitting Structures** 





# Customer successes identify Techvalue Norway AS

#### Thanks for your attention!





