



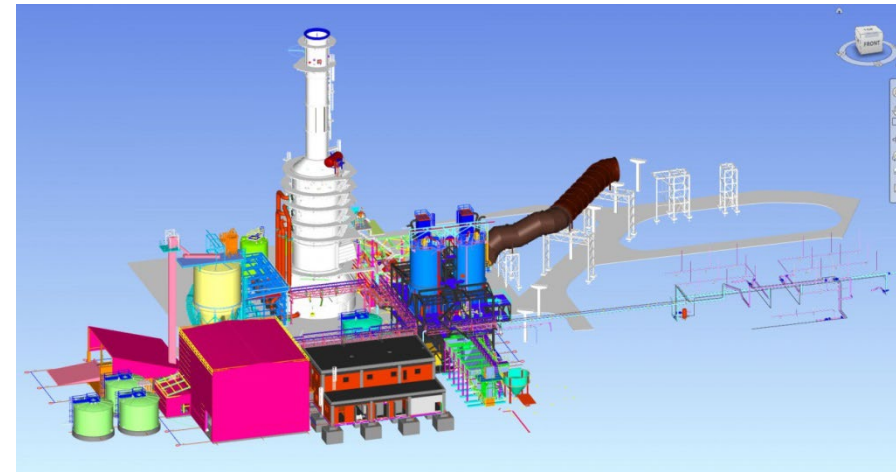
PIPESUPPORT
CONSULT



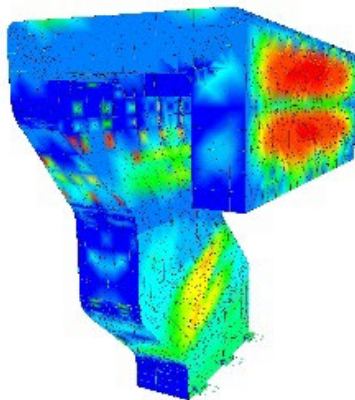
PIPESUPPORT CONSULT

PIPESUPPORT CONSULT was founded in January 2006 in Bucharest, Romania, having a wide range of capabilities and experience in the following fields of activity:

- ✓ **Energy & Power Plants**
- ✓ **Nuclear Power Plants**
- ✓ **Oil & Gas Refineries**
- ✓ **Industrial & Civil Structures**



For over 19 years, not only in Romania, but also in Europe, **PIPESUPPORT CONSULT** acquired a good reputation due to the recognized quality of its specialists and achievements through continuous improvement of its performances regarding the quality of services we provide.





Certifications & Authorizations

PIPESUPPORT CONSULT provides high quality engineering services and technical assistance and consultancy and assures that our services are in compliance with Clients' requests, also aiming to satisfy the quality requirements.

For this, we have implemented the integrated health, safety, environmental and quality system, certified by TUV SUD Management Service GmbH, according to **DIN EN ISO 9001:2015, DIN EN ISO 14001:2015 & DIN ISO 45001:2018.**

Our company is also authorized by **The state inspector for Boilers, Pressure Vessels and Lifting Equipment's Control (ISCIR)**

PT ISCIR C1 -RADTE IP – DISPR/CR4/E/4,5/0381/0/08.04.2011

PT ISCIR C10 -RADTE IP – DISPR/CR4/E/19/0384/0/11.04.2011

PT ISCIR C6 -RADTE IP – DISPR/CR4/E/13/0383/0/11.04.2011

PT ISCIR C4 -RADTE IP – DISPR/CR4/E/8/0382/0/08.04.2011

PT ISCIR C9 -RADTE IP –DISPR/CR4/E/17,18/4195/0/11.11.2024

and **National Commission for the Control of Nuclear Activities (CNCAN)** – *Authorization CNCAN nr. 24-047/03.10.2024*





Software

Using the latest versions of software, we are able to provide quality engineering that is reliable, efficient, economic and functional.

The whole technical documentation is computer - assisted.

- AUTODESK AUTOCAD 2D, 3D
- AUTODESK ADVANCE STEEL
- AUTOCAD PLANT 3D
- NAVISWORKS
- REVIT
- INTERGRAPH CAESAR II
- INTERGRAPH CADWORX PLANT
- GRAITEC ADVANCE DESIGN
- SAP 2000
- ROBOT STRUCTURAL
- MATHCAD
- LICAD
- AFT ARROW
- AFT FATHOM
- PV Elite



NOTE: GRAITEC ADVANCE DESIGN and INTERGRAPH CAESAR II software can be used for design including in the Nuclear Field.



Conventional and Nuclear Energy Sector

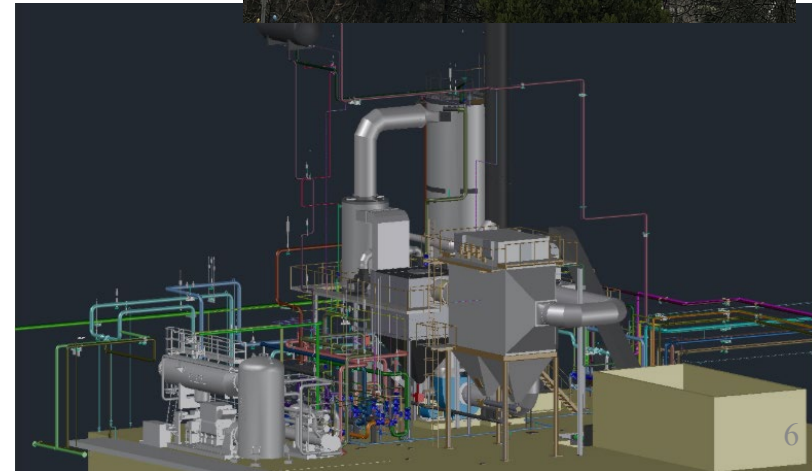


PIPESUPPORT CONSULT performs **engineering** and consulting works on **Power Plants** and **Cogeneration** facilities. Our team has participated in numerous projects in Romania and internationally in the **industrial** sector, providing **engineering** services and cutting-edge strategic advice. No project is too big a challenge for our team, which has participated in numerous projects of new energy facilities, rehabilitation and optimization of existing **Power Plants**.



Engineering Services:

- Basic and Detail Piping design for Power Plants (including the classic part of Nuclear Power plants) and district heating networks:
 - P&ID; 3D Modelling; Sizing piping systems; Preparation of pipe classes;
 - Top view plans and isometric drawings of piping systems; Assembly plans;
- Calculation of flexibility and stress analysis by CAESAR II;
- Preparation of specifications and datasheets for related facilities of Power Plants and Cogeneration Plants:
 - Pumps, valves, piping, supports, thermal insulation;
- Preparation of quantity take-offs and bill of materials;
- Technical projects and detailing for pressure vessels and tanks
- Technical expertise of piping systems and pressure vessels with the estimate of their remaining life;
- Preparing examination programs, tests and investigations to assess the technical condition of pipelines;
- Vibration measurements for piping systems
- Inspection, tuning and blocking/deblocking spring hangers and pipe supports





References for Power Plants engineering services :

CET GOVORA; CTE ROVINARI; BANIAS SIRIA; CET PAROSENI; CET CRAIOVA II; CET ISALNITA; ROMAG TERMO; ELCEN BUCURESTI; ALSTOM POWER ROMANIA; CET PALAS; CTE TURCENI; CET ORADEA; CET1 CHIMIEI BACAU; CET LETEA BACAU; SC DALKIA TERMO PRAHOVA SRL; CET LUKOIL; VEOLIA ENERGIE PRAHOVA; CTE IERNUT; CTE IERNUT / IERNUT COMBINED CYCLE POWER PLANT

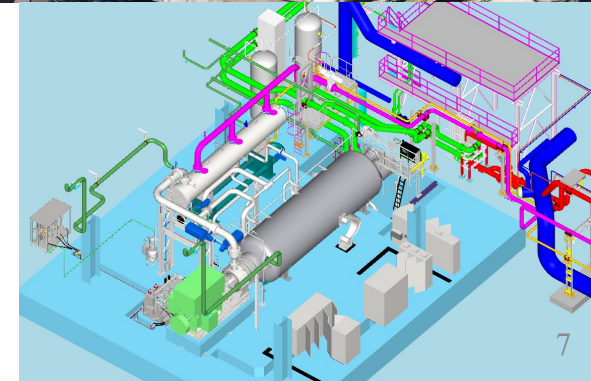
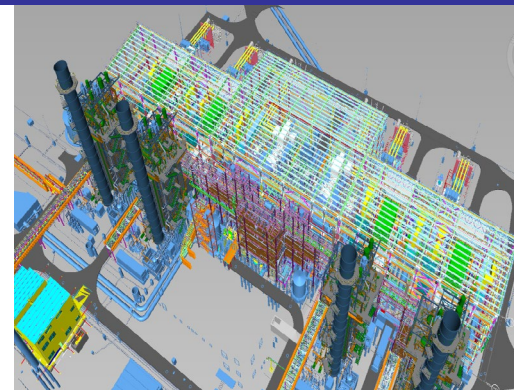
YIT INDUSTRIAL AND NETWORK SERVICES LTD: MARCHWOOD POWER PLANT, SEVERN POWER PLANT; SUOMENOJA POWER PLANT; BOXBERG POWER STATION, MARITZA POWER PLANT; NAREW POWER PLANT-POLONIA

References for District heating engineering services:

DALKIA TERMO PRAHOVA; SCCE CRAIOVA; TERMOFICARE 2000 PITESTI; CET CRAIOVA II; ENERGOTERM TULCEA; COLTERM SA Timisoara; SACET MUNICIPIUL PITESTI; RETEA TERMOFICARE CERNAVODA;

References for Other industries engineering services:

INERGY AUTOMOTIVE SYSTEMS ROMANIA; ALSTOM GENERAL TURBO; FABRICA ULEI BUZAU; S.C. SUPREME CHOCOLAT S.R.L; SC SORTILEMN SA; PETROFAC Ticleni; UZINA FORD; BIT Invest S.R.L.; HEINEKEN ROMANIA SA

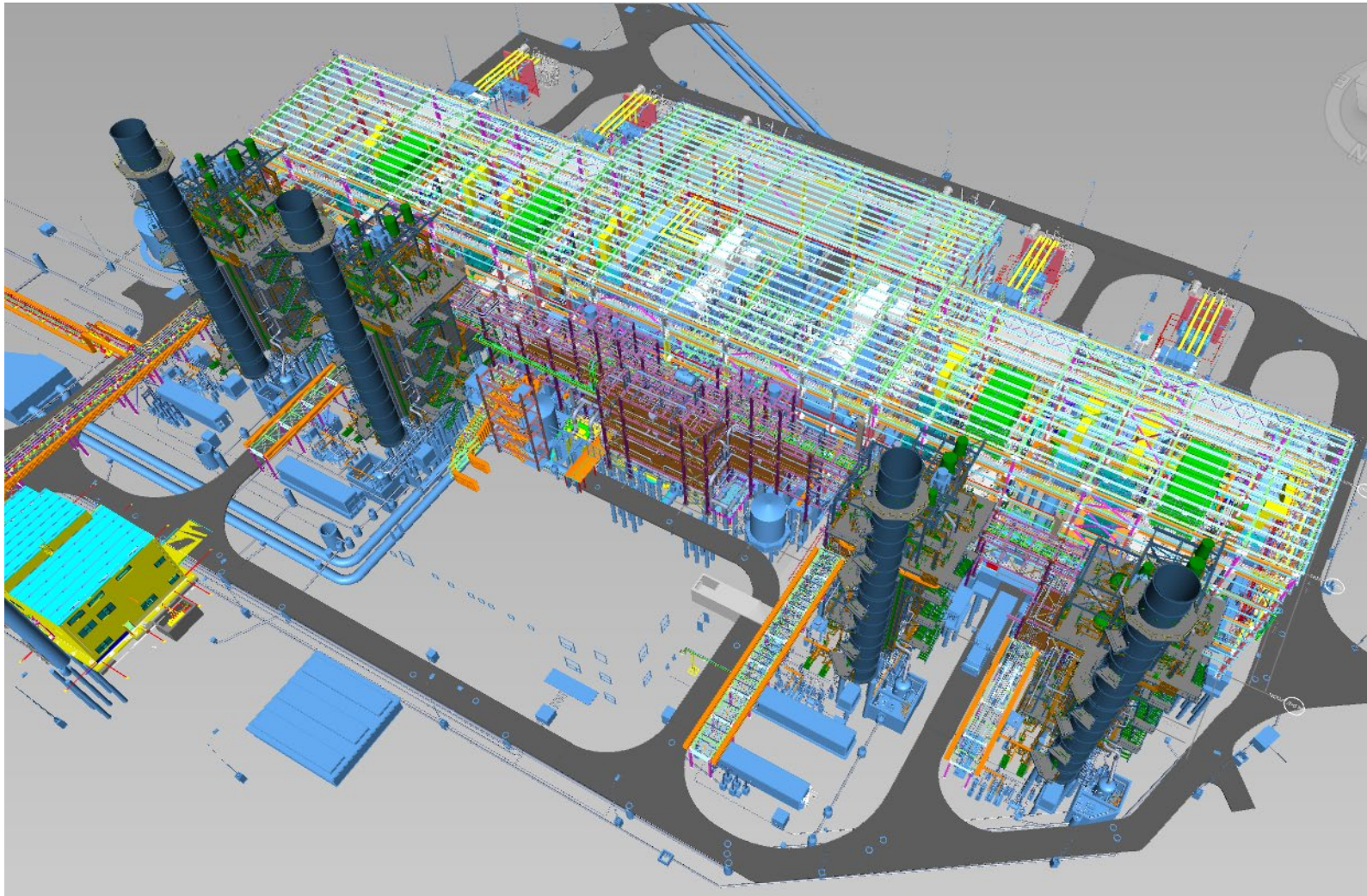




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Detail Design for all piping system and technical site assistance for **CTE IERNUT / IERNUT COMBINED CYCLE POWER PLANT**

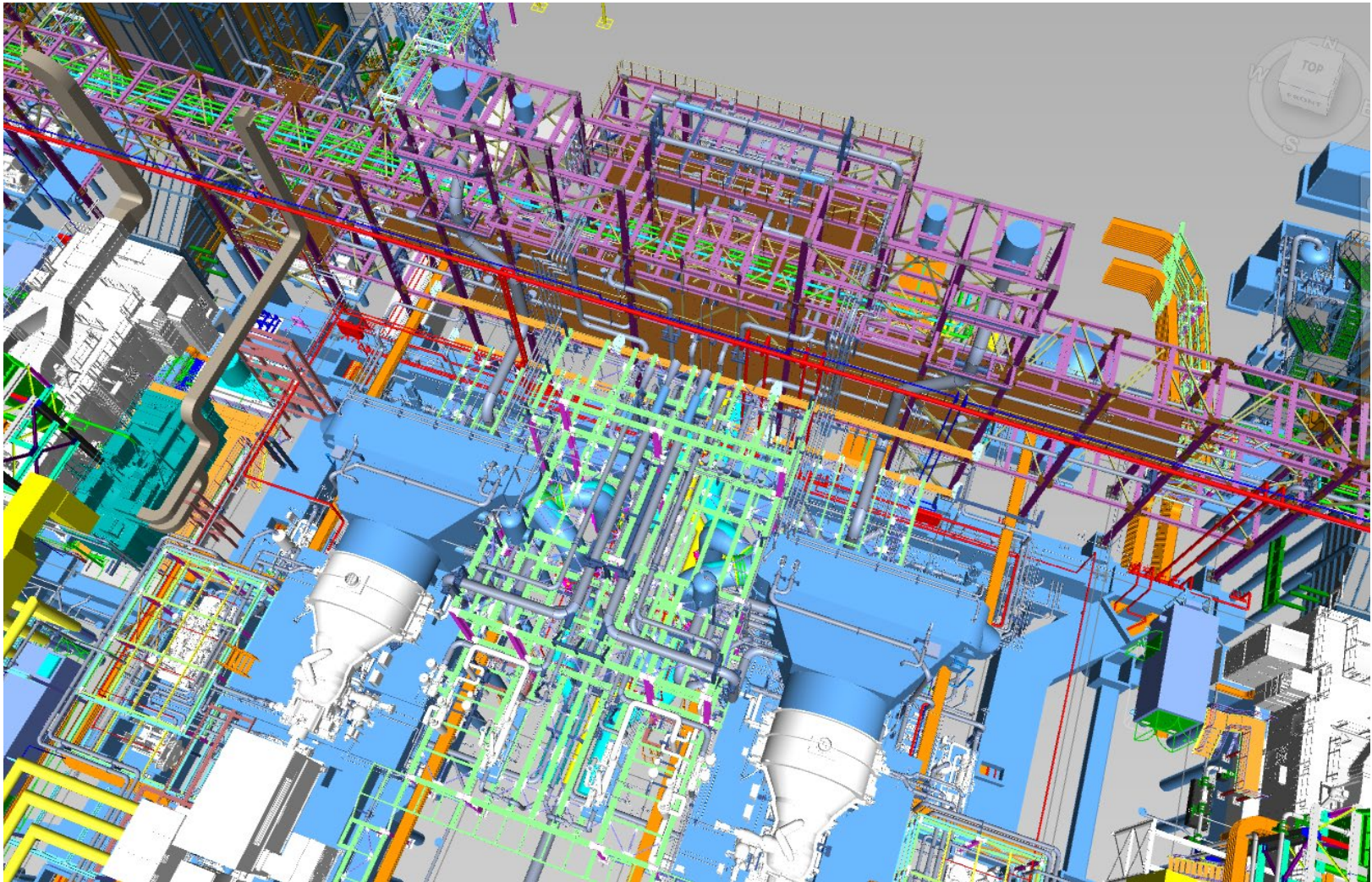




PIPESUPPORT
CONSULT



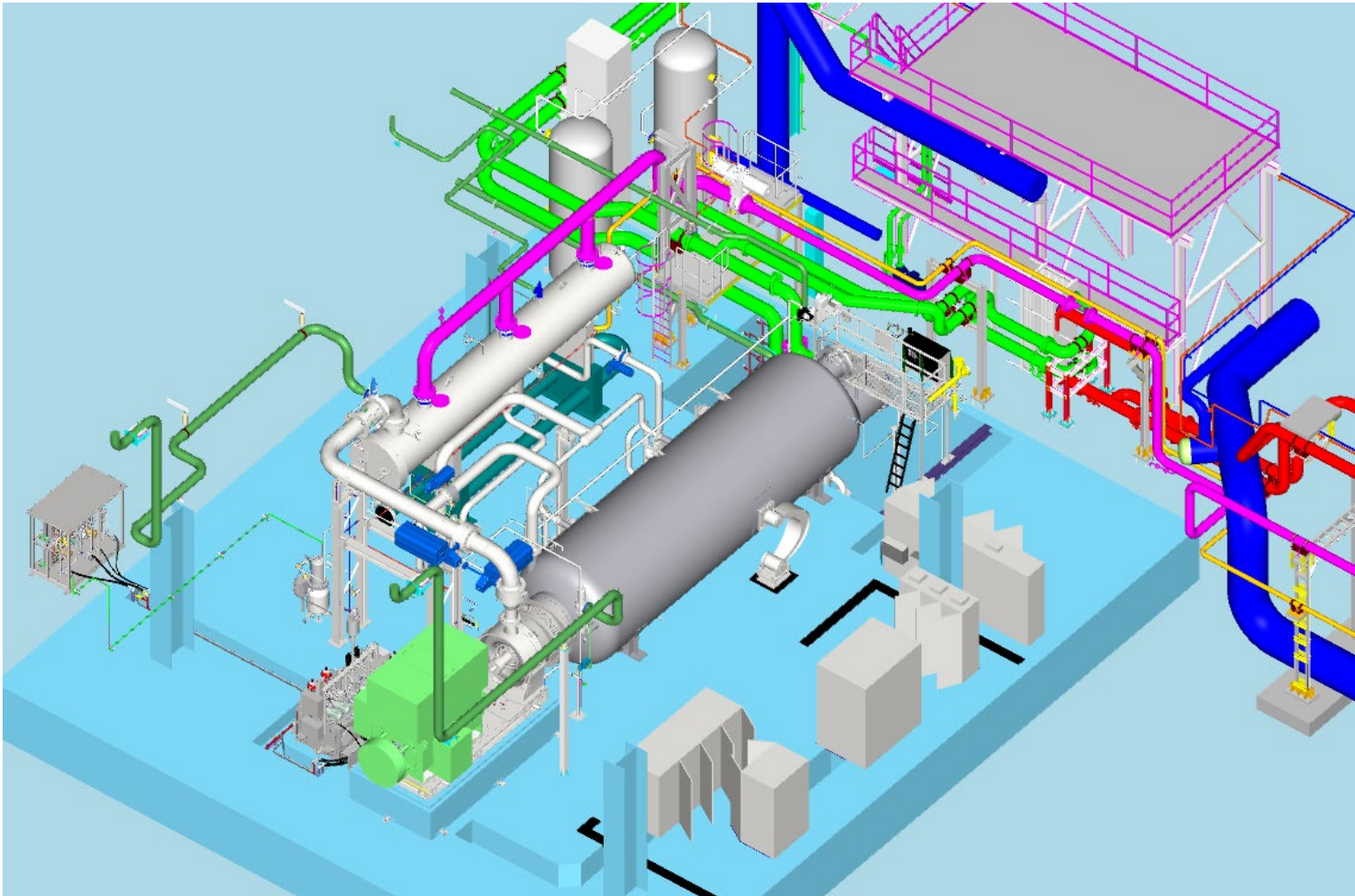
Detail Design for all piping system and technical site assistance for **CTE IERNUT / IERNUT COMBINED CYCLE POWER PLANT**





Basic and Detail Design for all piping systems

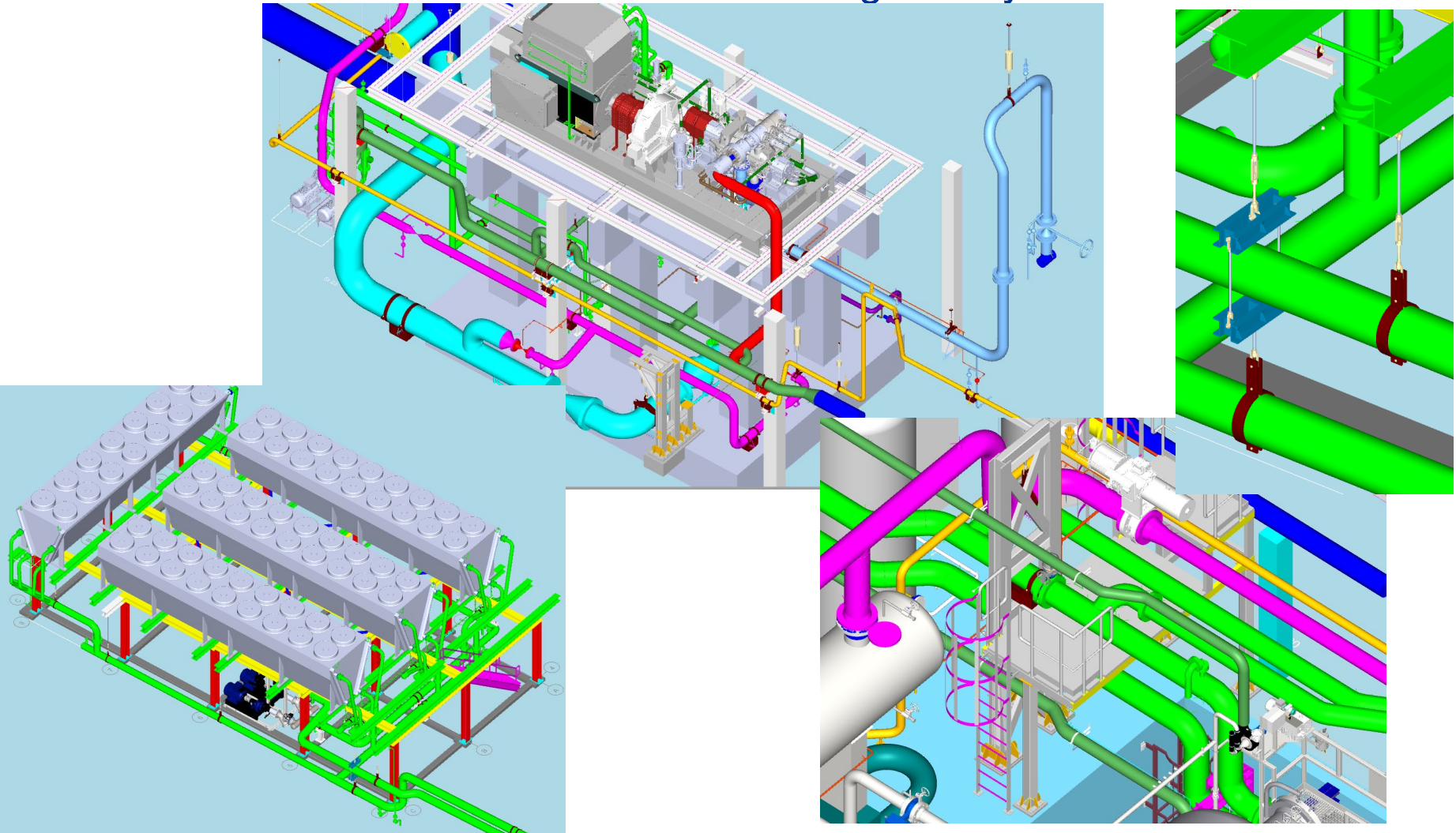
CET GRIVITA - New Steam Turbine and Organic Cycle Rankine installation





Basic and Detail Design for all piping systems

CET GRIVITA - New Steam Turbine and Organic Cycle Rankine installation





CET GRIVITA - New Steam Turbine and Organic Cycle Rankine installation



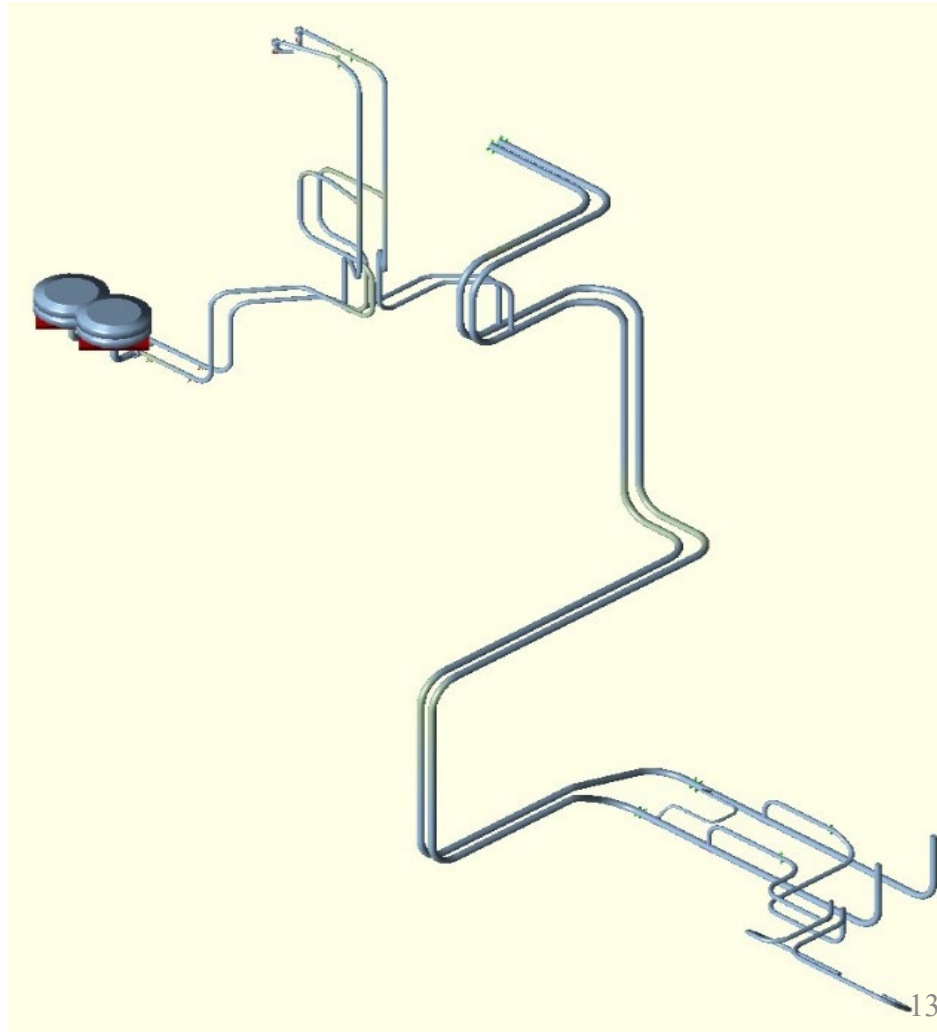
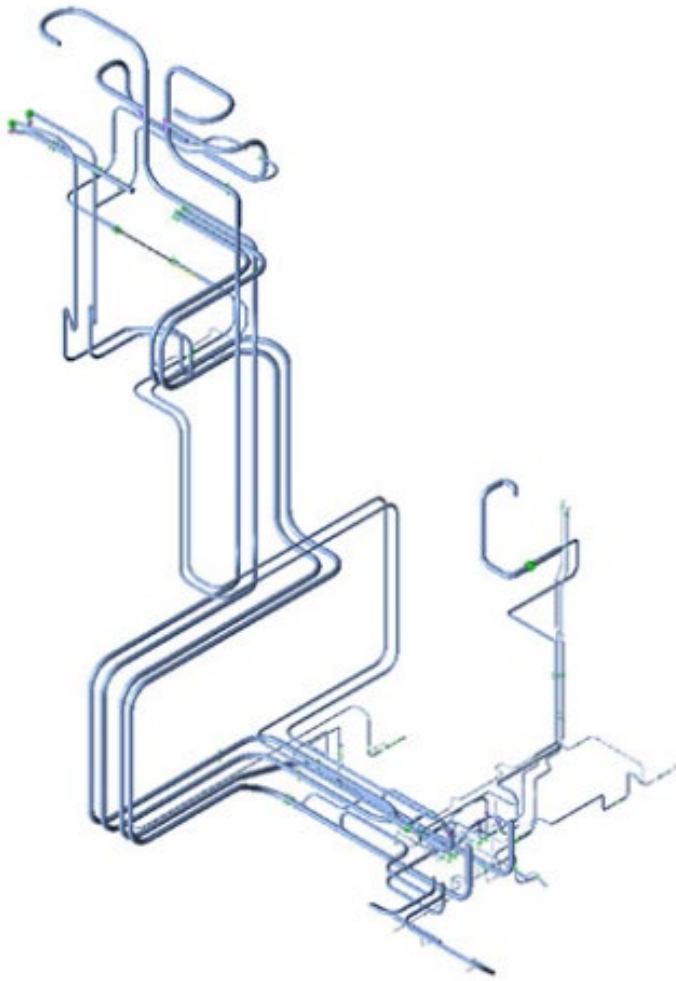


PIPESUPPORT
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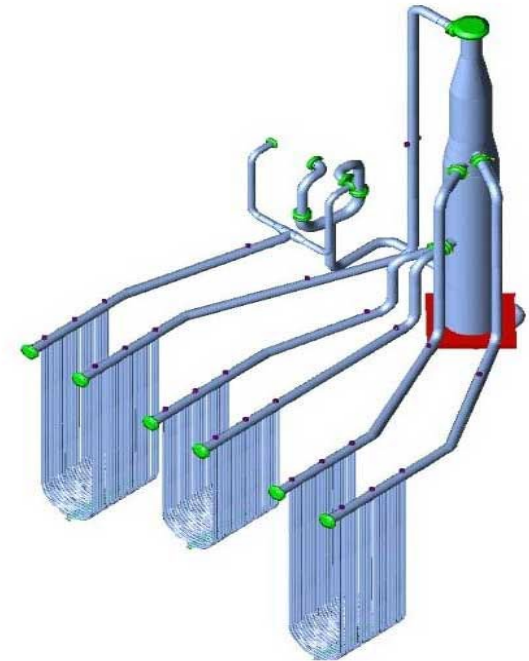
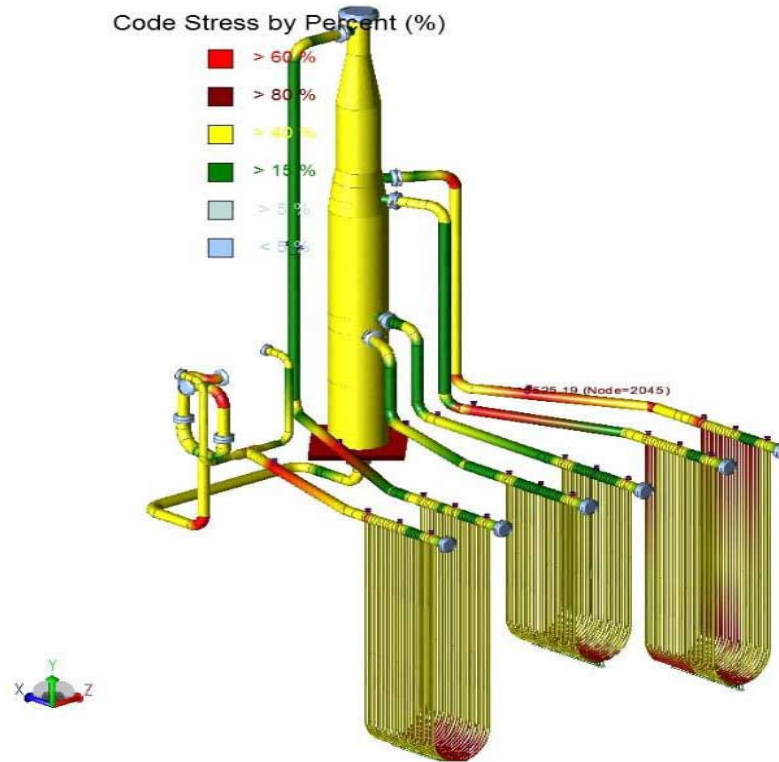
PIPING SYSTEM FLEXIBILITY CALCULATION

Software: CAESAR II





Oil & Gas Refineries



Within the bounds of **oil refining plants**, chemical and **petrochemical plants** and their related industries, **PIPESUPPORT CONSULT** deals with **engineering** works, technical expertise, consulting and maintenance for **pipelines**, **pipe support** systems and pressure equipment.

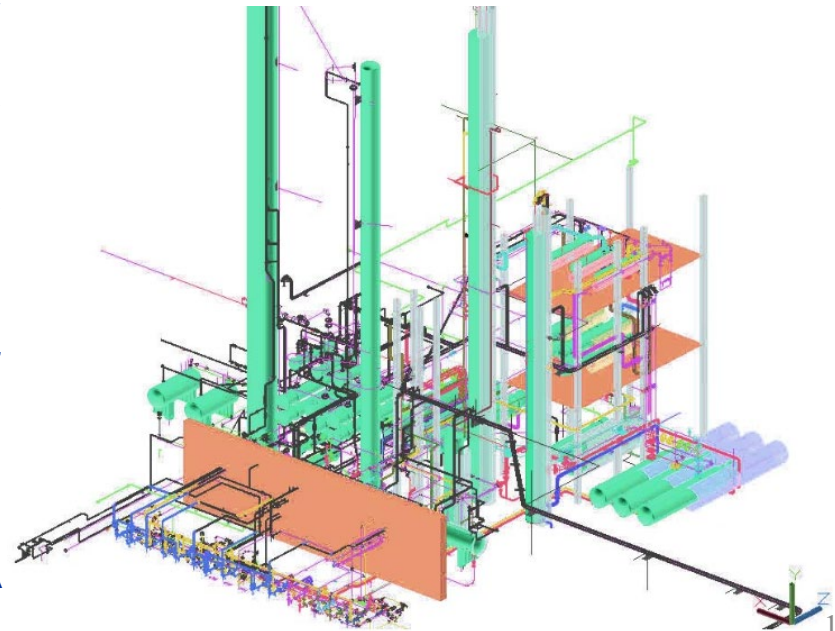
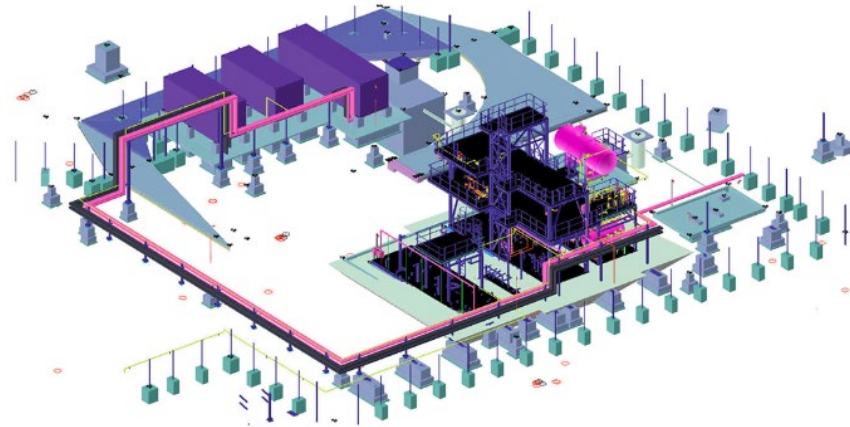


Services:

- Technical expertise of piping systems and pressure vessels with the estimate of their remaining life;
- Preparing examination programs, tests and investigations to assess the technical condition of pipelines;
- Technical expertise for the support system of existing pipeline systems, including tuning of spring hangers;
- Maintenance services for piping systems and their support system;
- Detailing projects and assembly documentation for pipelines systems;
- Sizing, technical projects and detailing for pressure vessels;
- Flexibility calculation and stress analysis of piping systems; Piping circuits optimization in terms of flexibility.

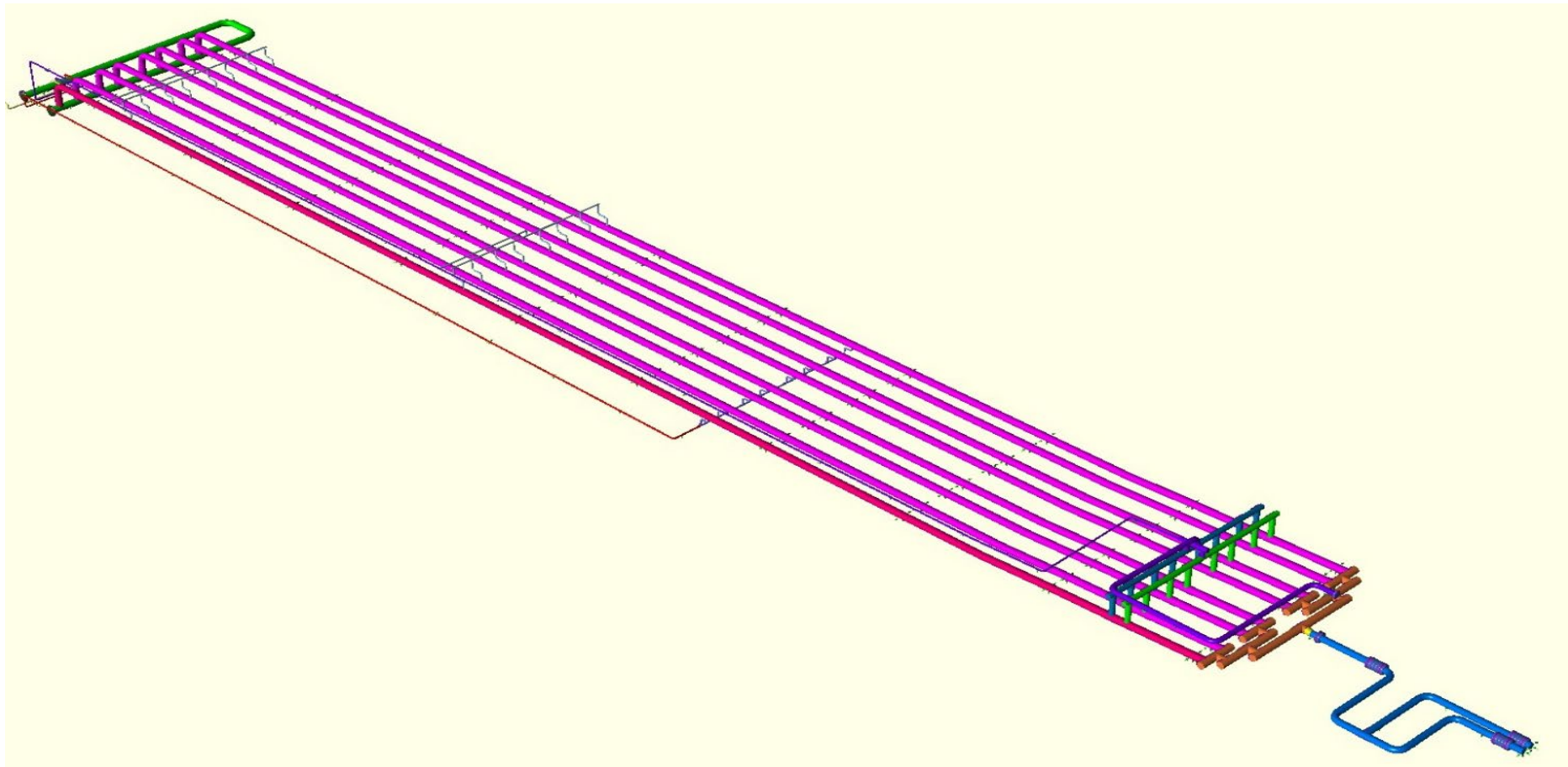
References:

- OMV Petrom, PETROTEL LUKOIL PLOIESTI, ROMINSERV, OLTCHIM, RAFINARIA VEGA PLOIESTI, RAFINARIA MIDIA NAVODARI



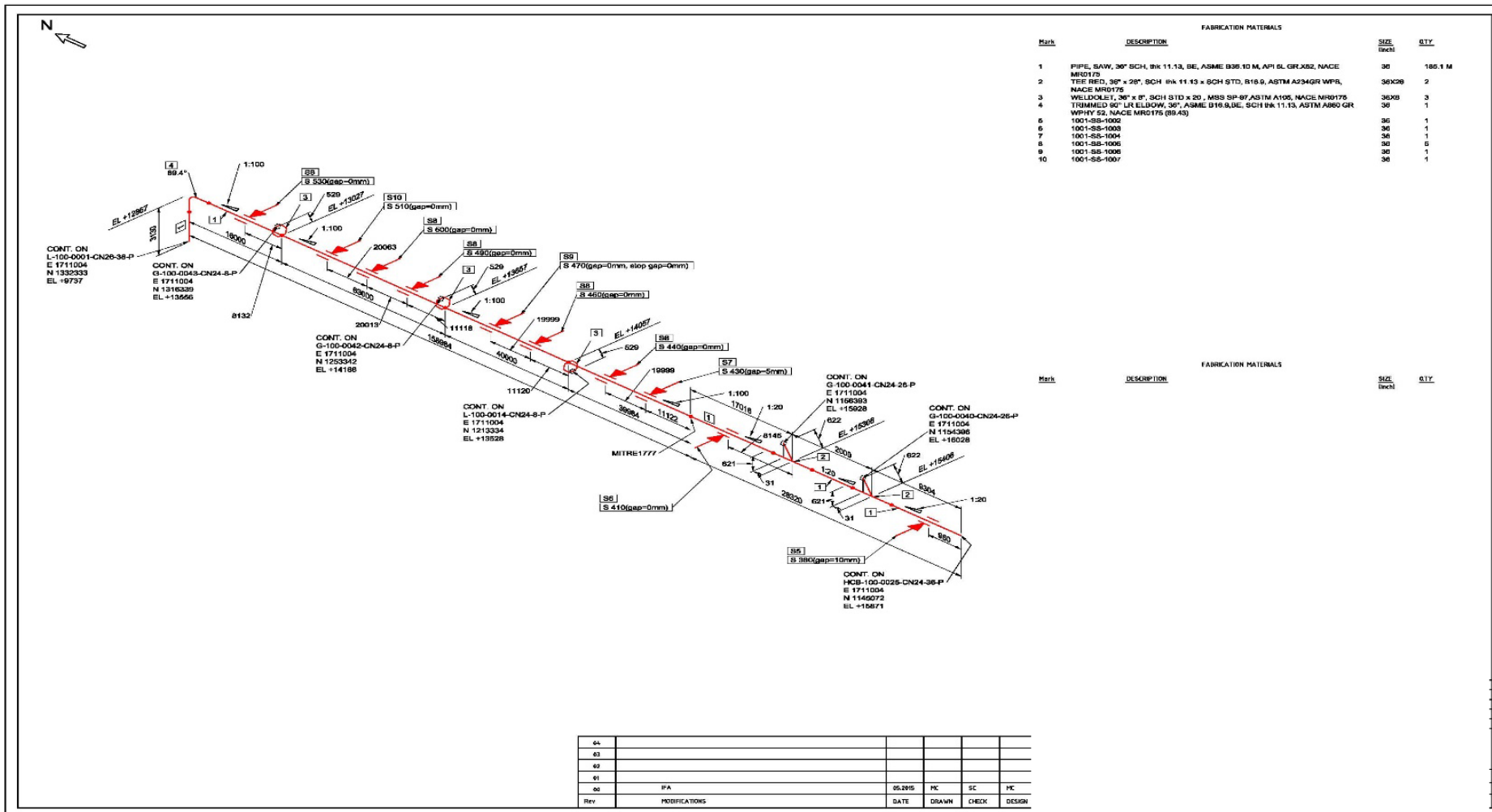


SLUG CATCHER – Software: CAESAR II





ISOMETRIC DRAWING - Software: CADWORX PLANT





Nuclear Power Plants

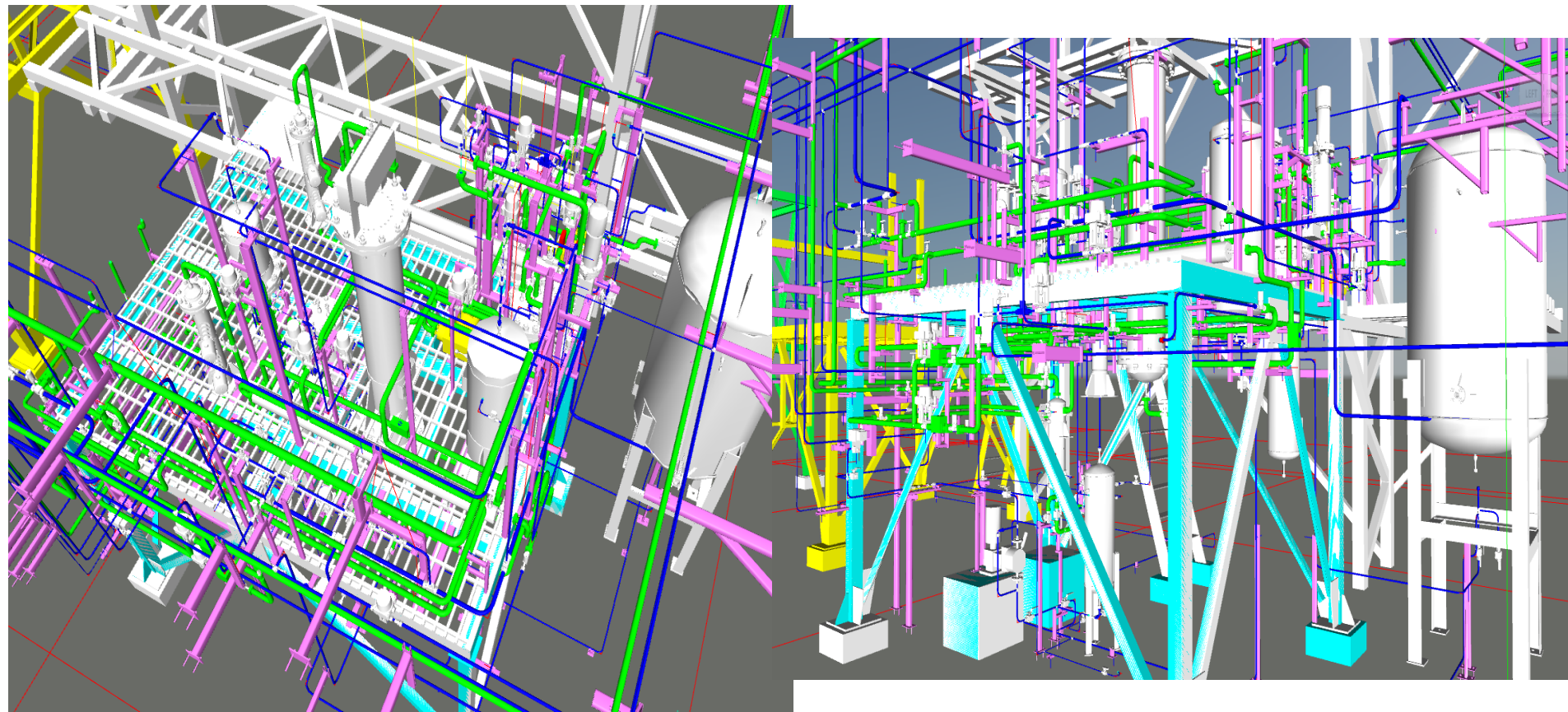
PIPESUPPORT CONSULT obtained the CNCAN authorization for its quality management system for engineering design and technical expertise in the nuclear field (the classical part of the nuclear power plant) for **pressure equipment and piping systems, pipe supports and steel structures in 2020.**

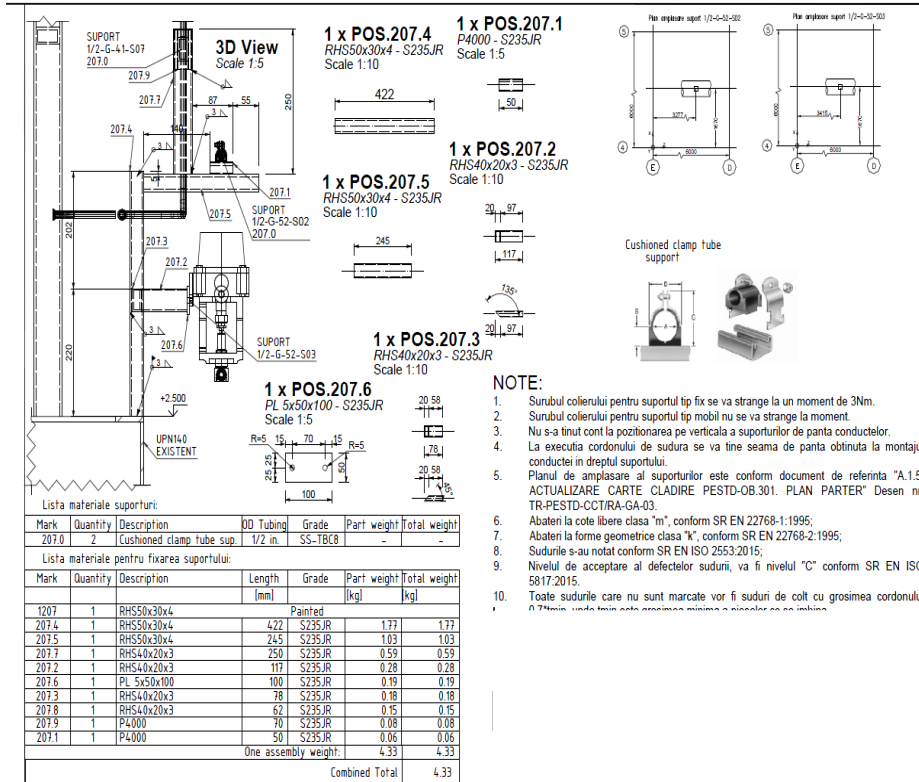


In 2023 PIPESUPPORT CONSULT was qualified by Cernavoda Power Plant as a design engineering services provider for: *Design, calculation and consulting engineering services for pressure vessels, piping systems, pipe supports and steel structures for CNE Cernavoda*



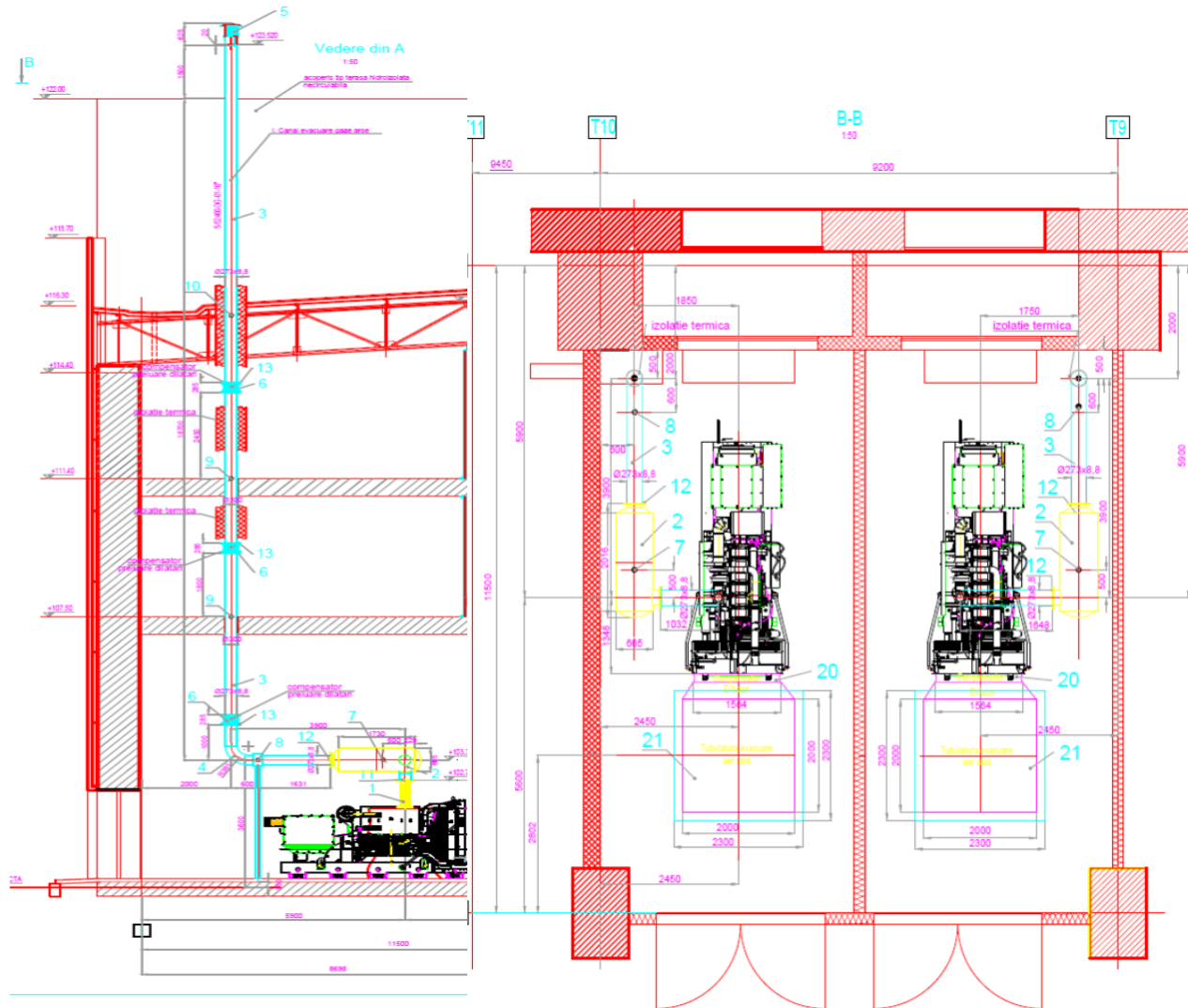
Detail Design for Nuclear piping systems - Purged gas treatment system within the Experimental Pilot Installation for Tritium and Deuterium Separation (PESTD) - ICSI-RM. VALCEA - Software: CADWORX PLANT



[illegible]



CERNAVODĂ U5- INTEGRATED SERVICES BUILDING

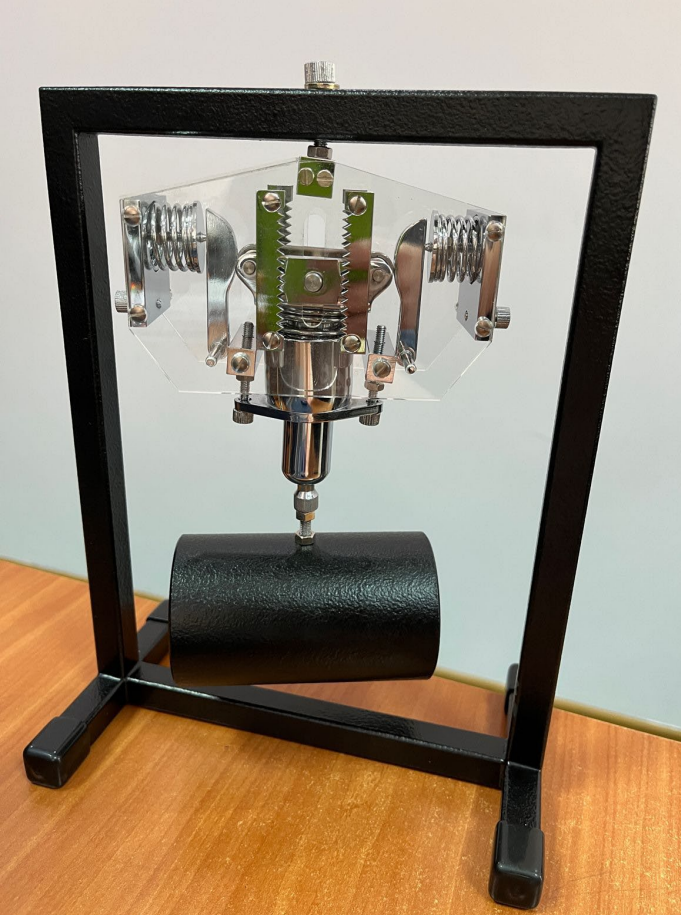


*Project for assembly
of the Diesel
generators level
+100,00 m) and gas
exhaust pipe*



PIPING SUPPORTS DESIGN

Variable and Constant supports and secondary steel structure design



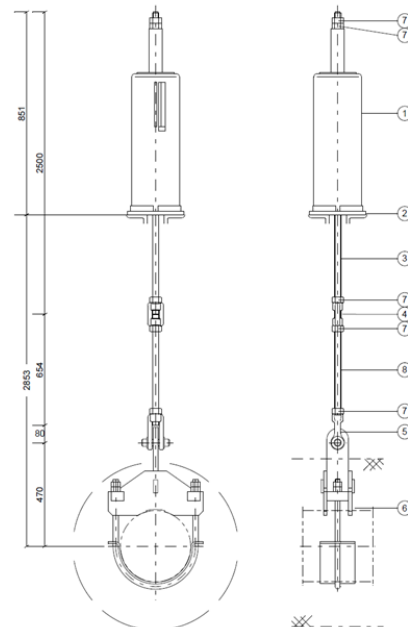
conceptual]



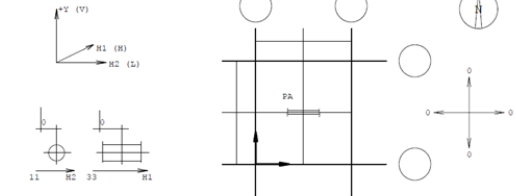
Env. PIPESUPPORT CONSULT 2020\LICAD\moda\licad\10\PRUB.FMB (Print for private FMB 27404) - Project : Default

LICAD

Opera. 10.2.0.62
Standard Supporte 2020



* Tip arc selectat de catre utilizator



8 Tijă filetata	676313	[654]	1	4.70	S355J2
7 Piuliță hexagonală	636920	M30	5	1.10	Gr. 8
6 Colier	443242	D323.9	1	31.00	10CrMo 9-10
5 Carlig cu bolt	616912		1	2.70	p 250 dm
4 Mufa prelungitoare	640910		1	1.20	S235JR
3 Tijă filetata la capete	646613	2500	1	11.75	S355J2
2 Placa de baza pentru tip	726920		1	1.00	S235JR
1 Suport sarcina variabila	256310		1	56.00	
				115.45	

For. Descriere Tip mm Buc. kg Material

pag. 1/2

5RA41-H04

Intrare F(H) 27.24 kN*
F(H) = 27.74 kN
F(C) = 24.57 kN
F(F) 24.57 kN
F(Hy) = 23.40 kN
later. = 11 mm
horiz. = 33 mm
vert. = -24 mm
Ø OD = 323.9 mm
Isolatie = 220 mm
Temp. = 345 °C
d P = 11 mm
Constanta arc = 133.3 N/mm
Depl. tot. = 200 mm
Pos. de blocare 84 mm
Depl. la regim -23.79 mm
Rez.depl. joa/mus = 92/84 mm

PS PIPESUPPORT CONSULT LISEGA

Beneficiar : LISEGA Offer N° :
Centrala / Sistem LICAD Dwg.- N° Rev.

P.O. N° :
Denumire lucrare pipesupportconsult

Desen Nr. :
Resp. lucrare : 10-May-18 Verificat :



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PIPING VIBRATION MEASUREMENT & MONITORING







Structural Engineering

Engineering services:

Technical and Detail engineering projects for

- steel structures & platforms
- storage tanks & silos
- piping supports & secondary steel structures
- flue gas ducts
- ventilation ducting



FEM analysis with the aid of Graitec Advance Design
3D Modelling with Autodesk Advance Steel, Revit, Autocad

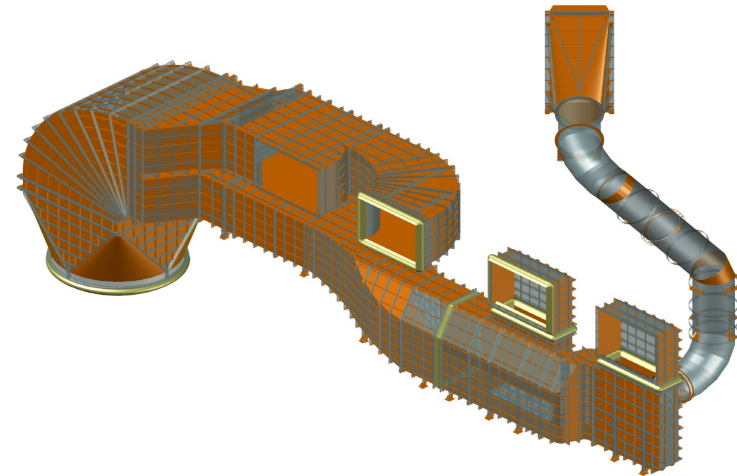
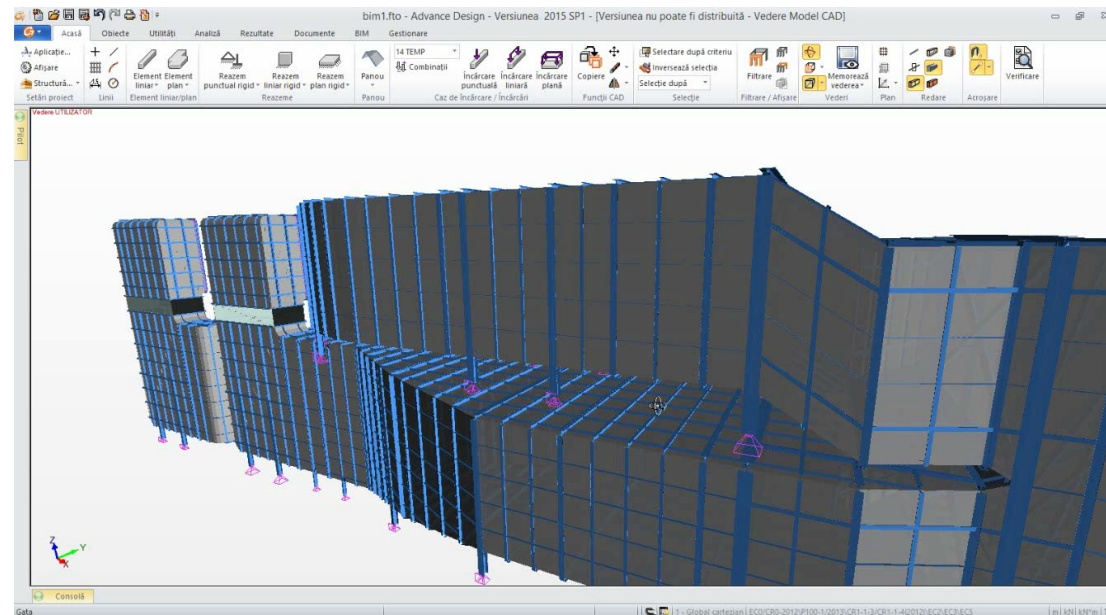
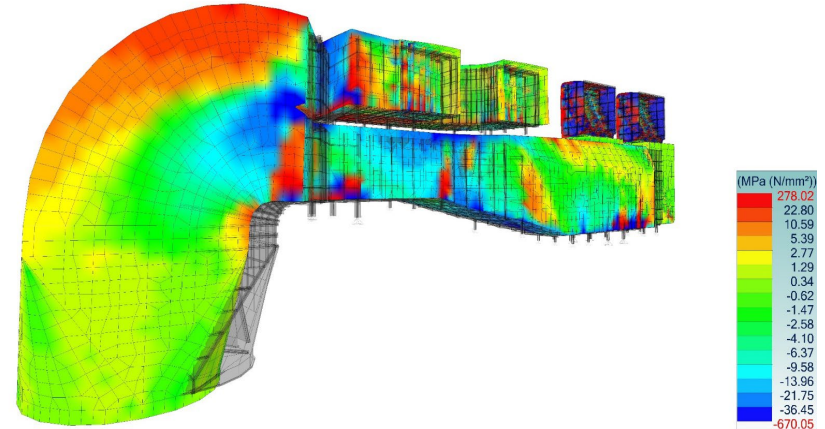
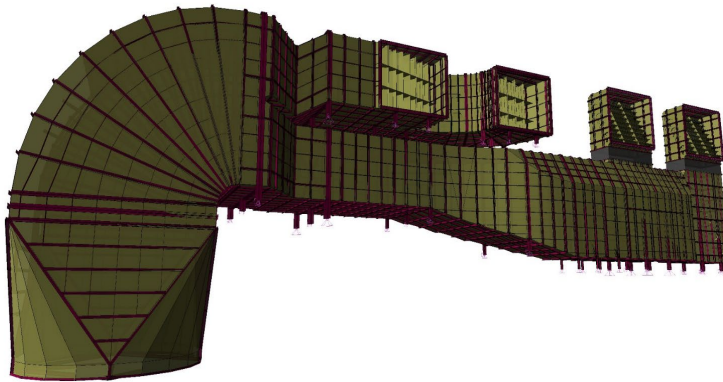




FLUE GAS DUCTS (*UNIT 5 Rovinari, Romania*) – Basic+Detail Engineering

Software: GRAITEC ADVANCE DESIGN

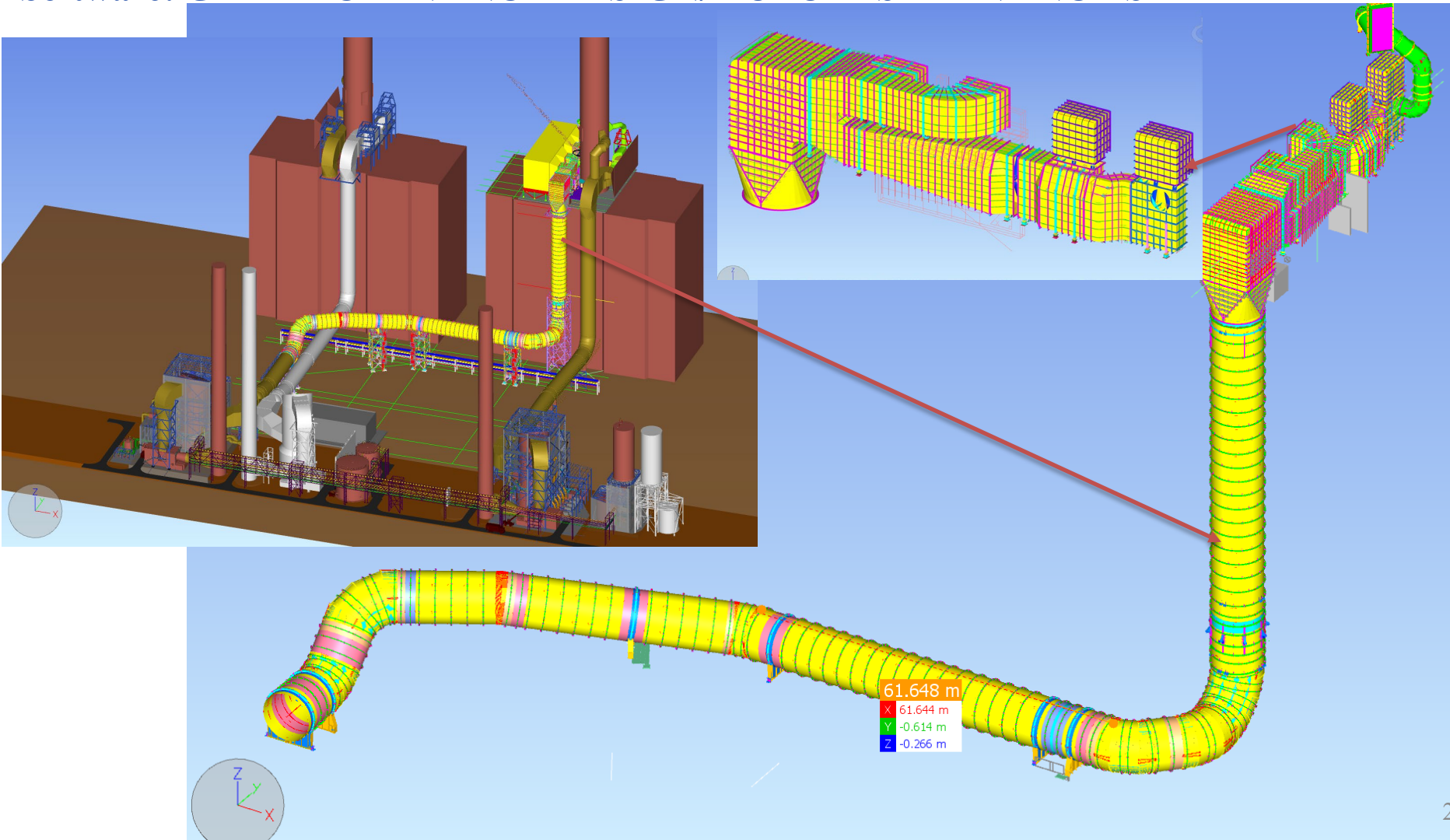
100 UTILIZATION
Analysis: 14.75 MPa
Superficie: 104.1 MPa
Area totala
Volumul total





FLUE GAS DUCTS (*UNIT 5 Rovinari, Romania*) – Basic+Detail Engineering

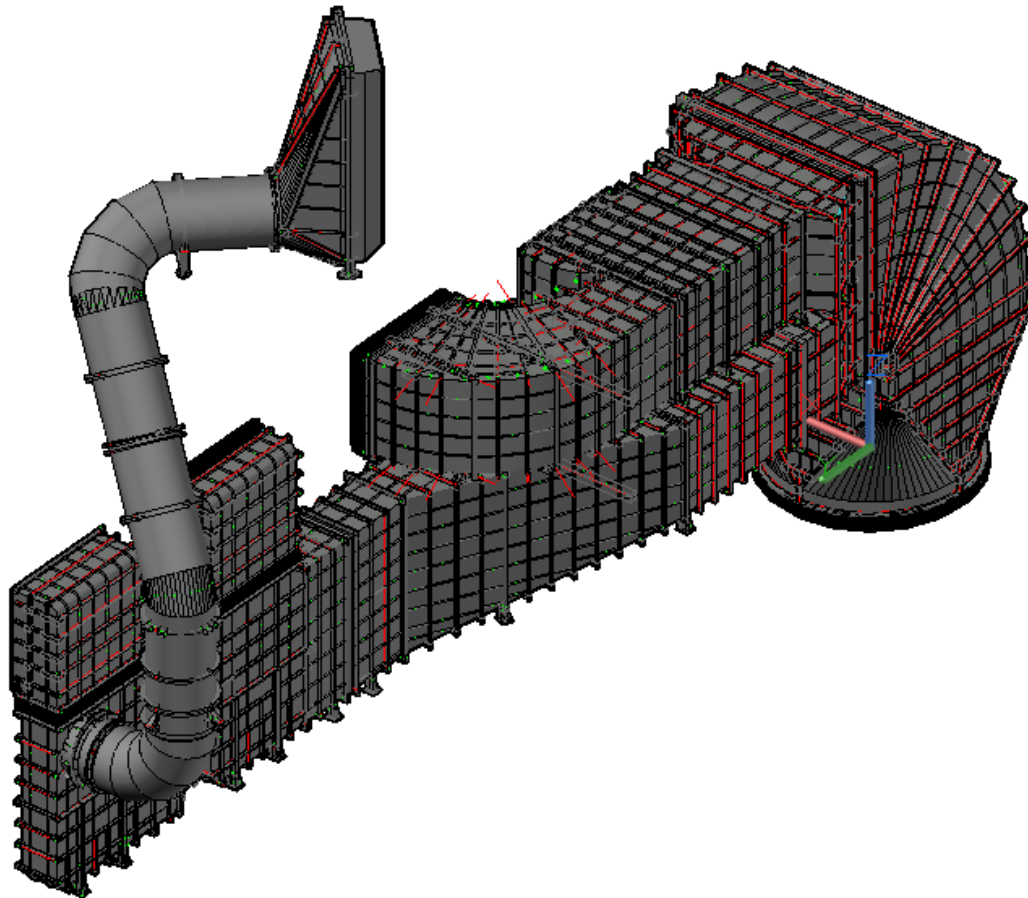
Software: GRAITEC ADVANCE DESIGN/ AUTODESK ADVANCE STEEL





FLUE GAS DUCTS (*UNIT 5 Rovinari, Romania*) – Basic+Detail Engineering

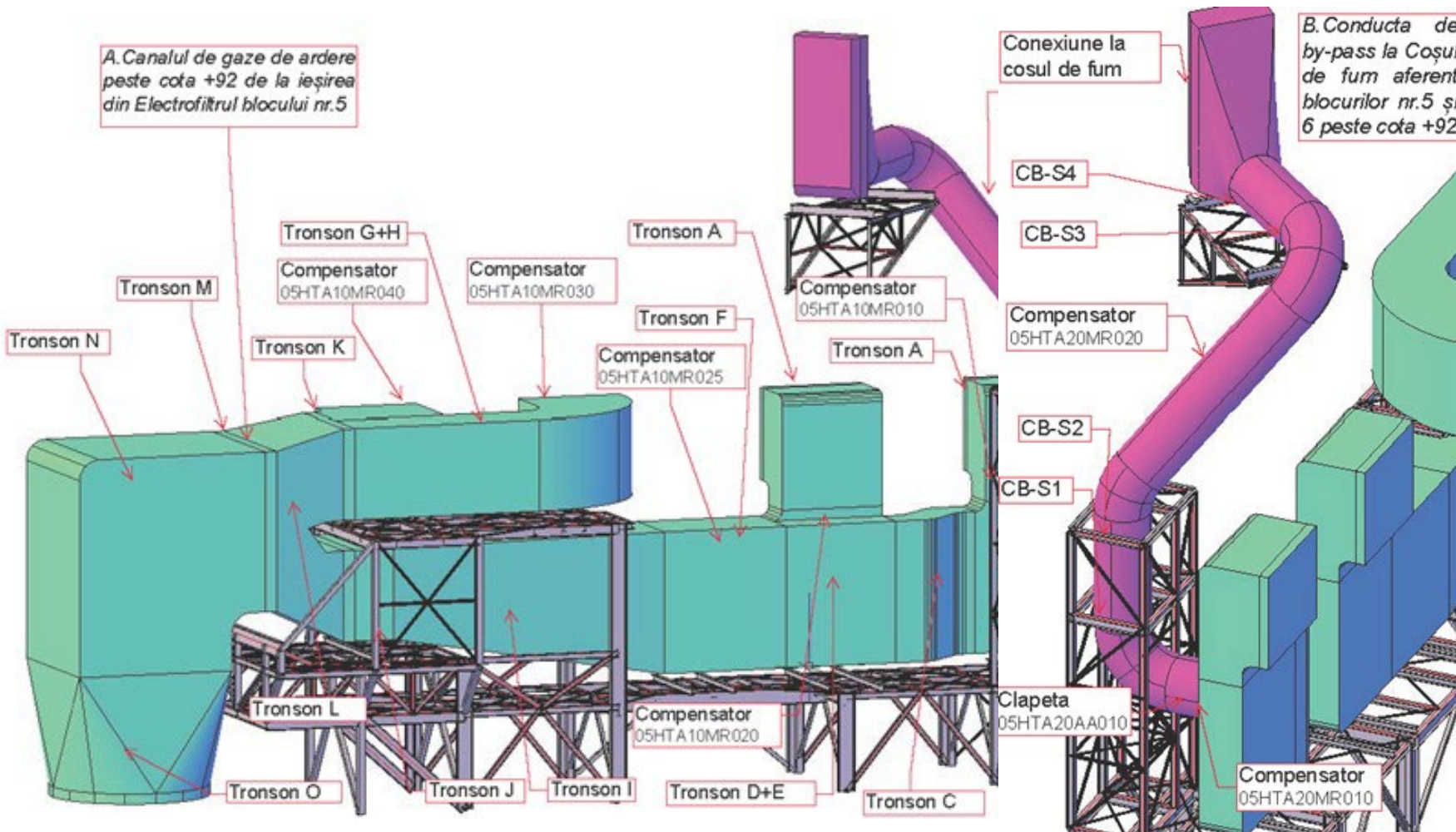
Software: GRAITEC ADVANCE DESIGN/ AUTODESK ADVANCE STEEL





FLUE GAS DUCTS (*UNIT 5 Rovinari, Romania*) – Basic+Detail Engineering

Software: GRAITEC ADVANCE DESIGN/ AUTODESK ADVANCE STEEL



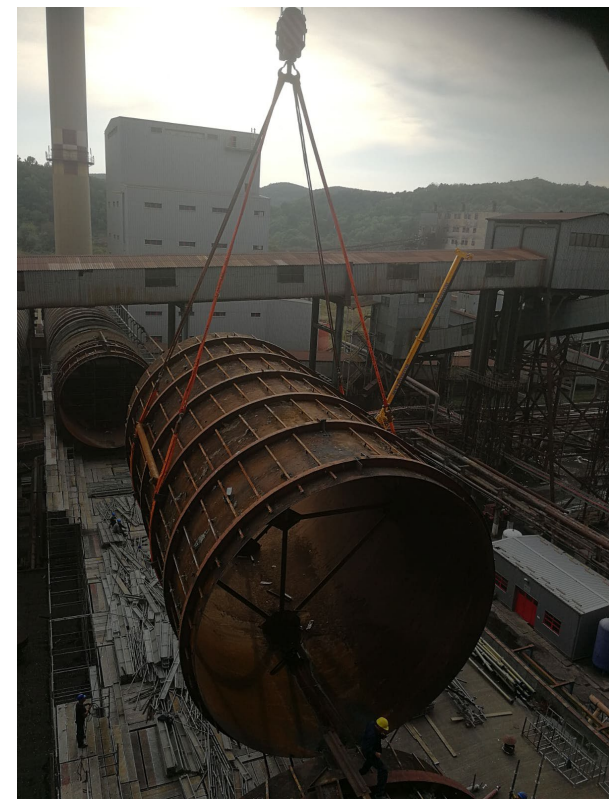


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FLUE GAS DUCTS (*UNIT 5 Rovinari, Romania*) – Basic+Detail Engineering

Software: GRAITEC ADVANCE DESIGN/ AUTODESK ADVANCE STEEL



Pictures from site - 2023

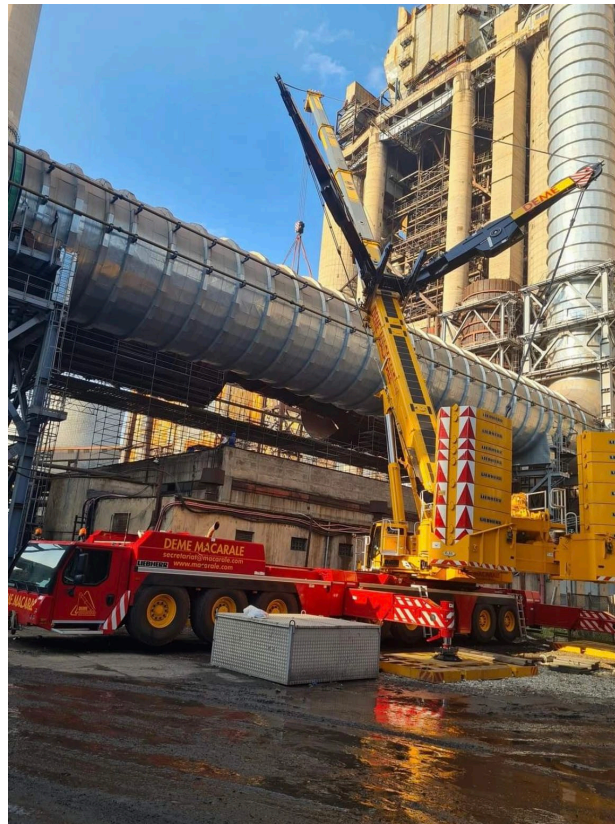


PIPESUPPORT
CONSULT



FLUE GAS DUCTS (*UNIT 5 Rovinari, Romania*) – Basic+Detail Engineering

Software: GRAITEC ADVANCE DESIGN/ AUTODESK ADVANCE STEEL

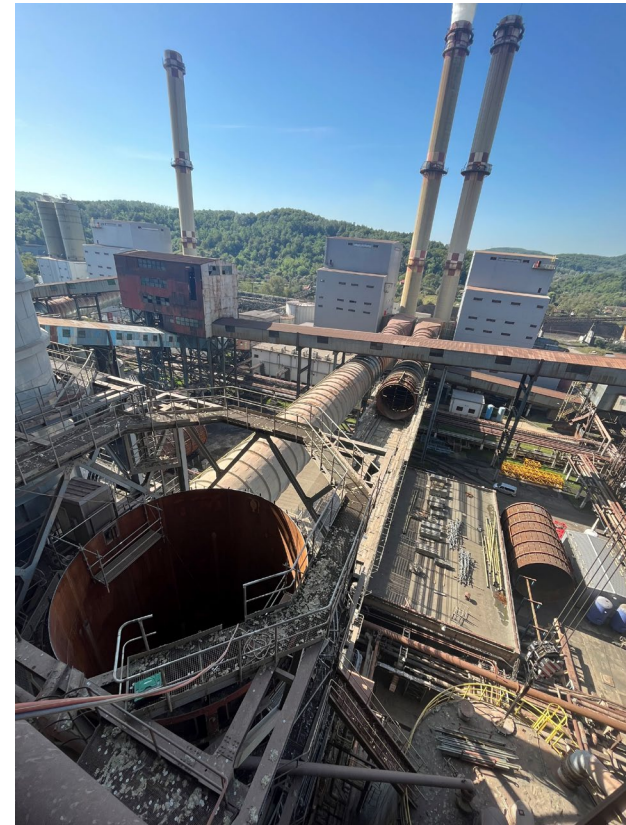


Pictures from site - 2023



FLUE GAS DUCTS (*UNIT 5 Rovinari, Romania*) – Basic+Detail Engineering

Software: GRAITEC ADVANCE DESIGN/ AUTODESK ADVANCE STEEL



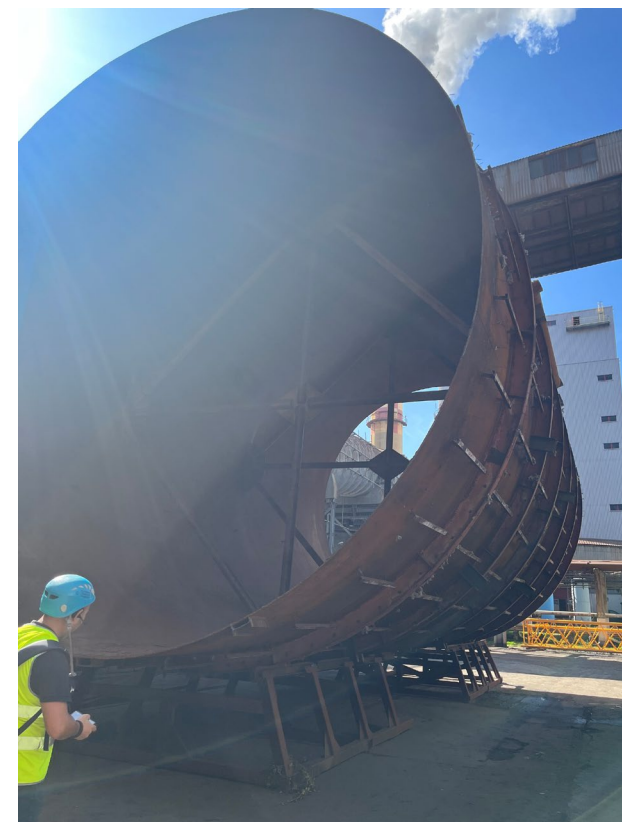


PIPESUPPORT
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FLUE GAS DUCTS (*UNIT 5 Rovinari, Romania*) – Basic+Detail Engineering

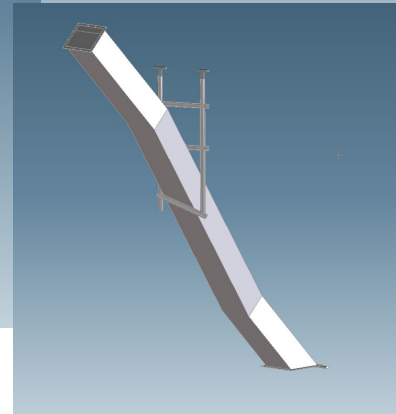
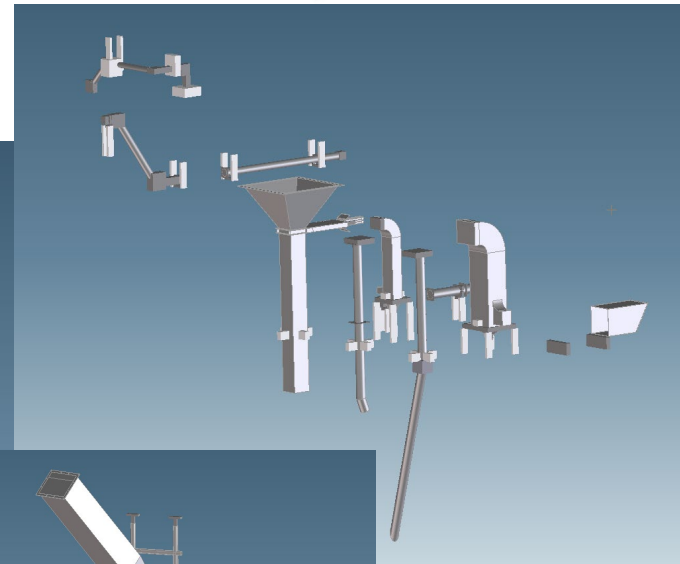
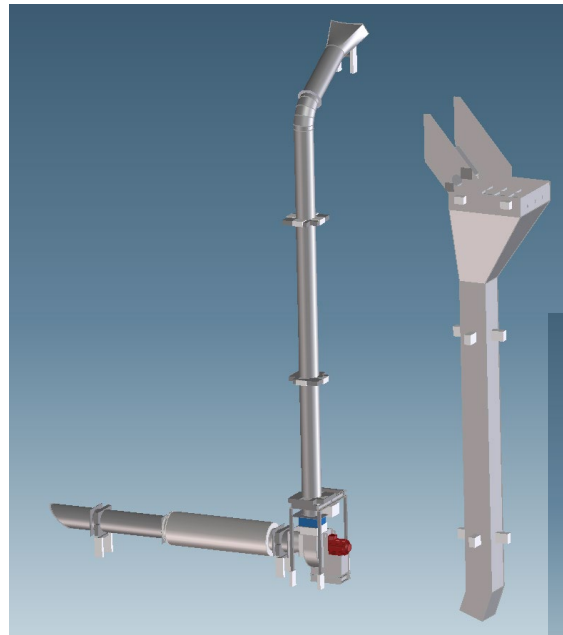
Software: GRAITEC ADVANCE DESIGN/ AUTODESK ADVANCE STEEL



Pictures from site - 2023

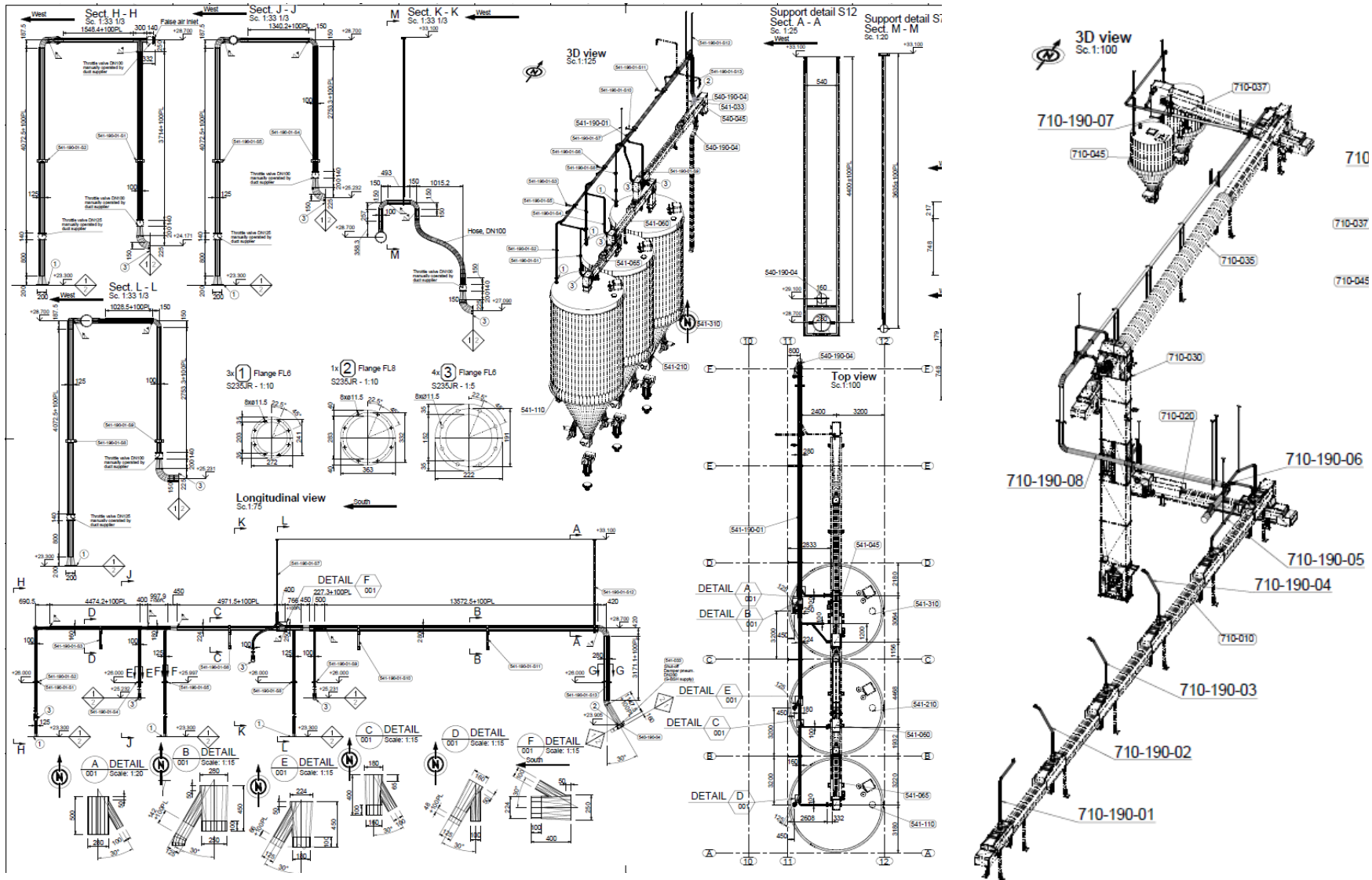


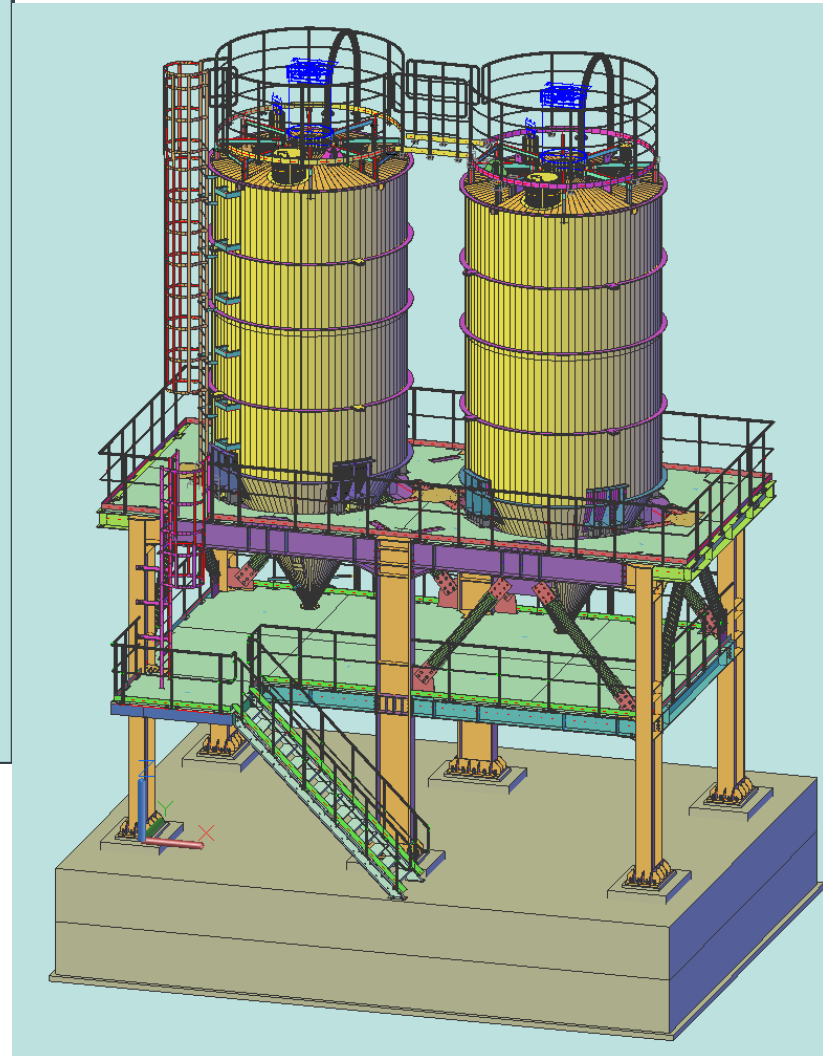
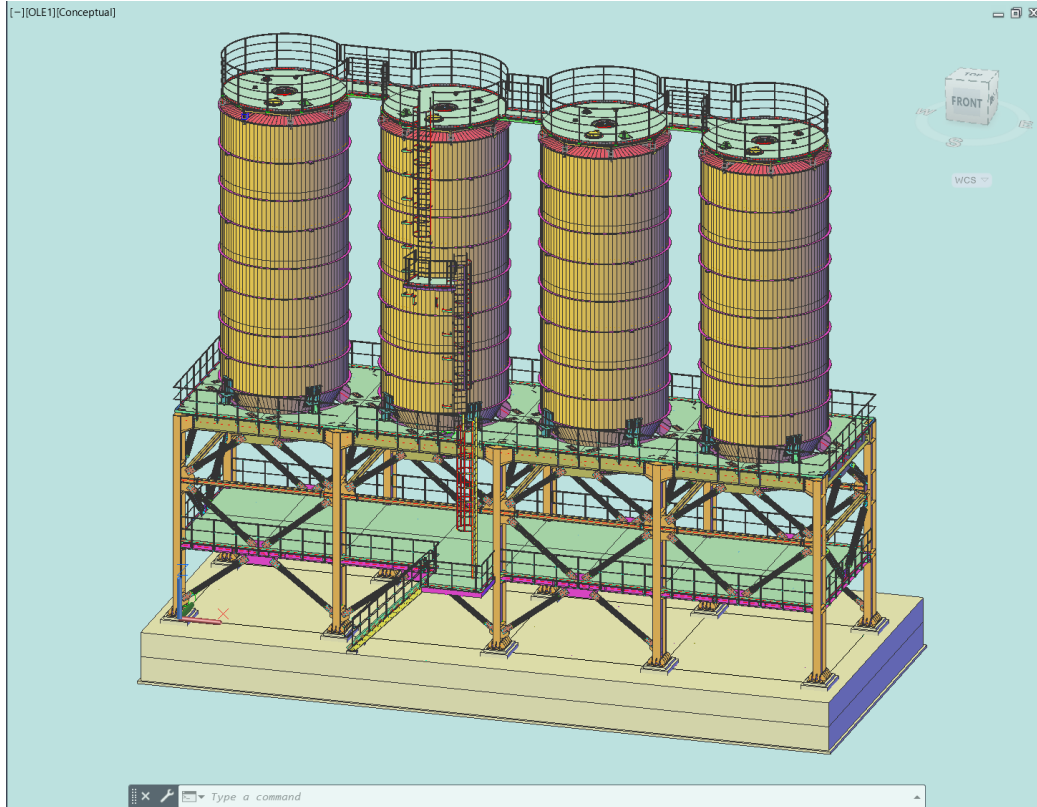
Various Air Ducts – Basic engineering for Circular/rectangular section – Grenzebach, Riyadh





Various Air Ducts – Basic engineering for Circular/rectangular section – Grenzebach, Riyadh





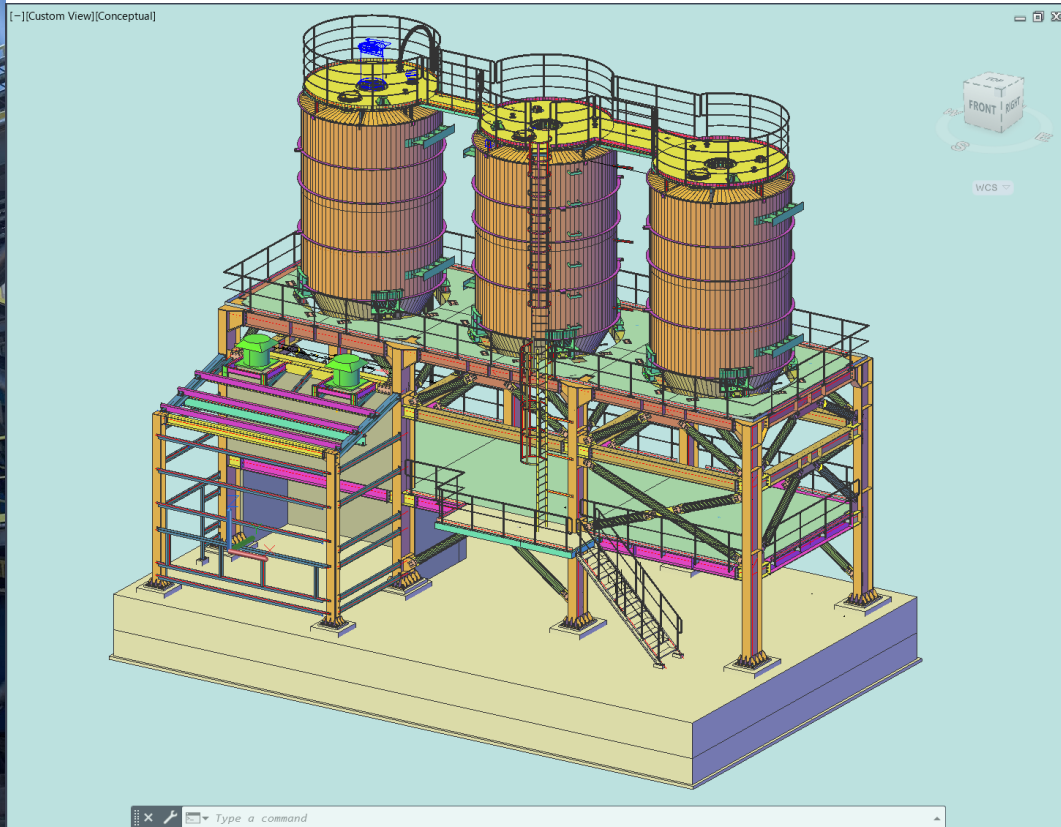
“Sludge incinerator – GLINA, ROMÂNIA”

Steel silos for storage :

- ***LIME SILO 50m³***
- ***SAND SILO 50m³***
- ***ASH SILO 215m³***
- ***SODIUM BICARBONATE SILO 80m³***
- ***RESIDUE SILOS 80m³***



Steel silos for storage :
“Sludge incinerator – GLINA, ROMÂNIA”





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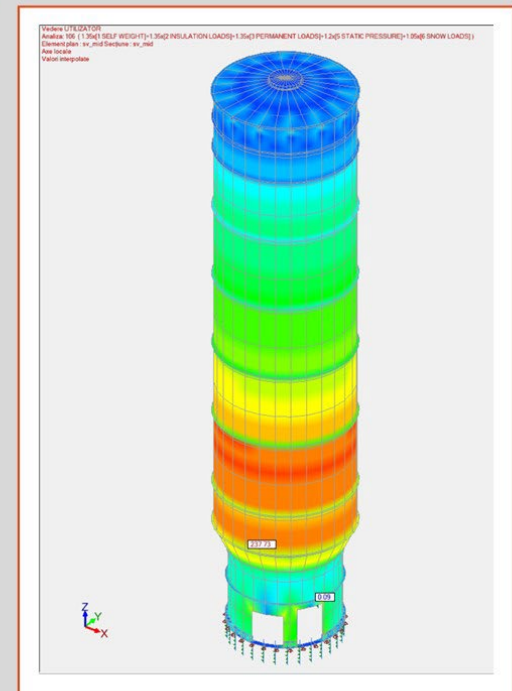
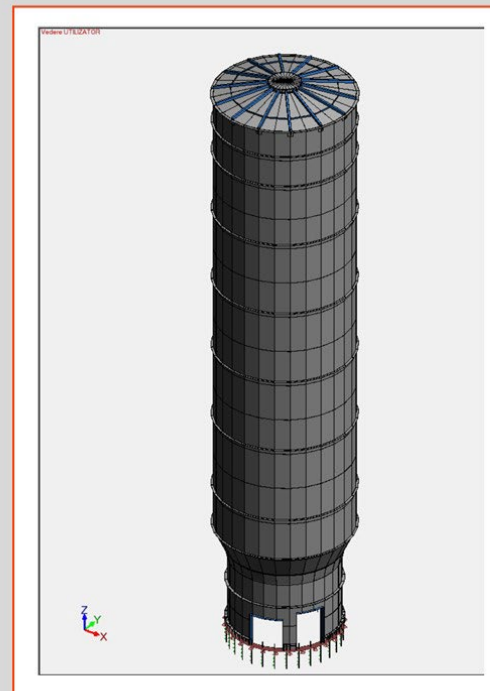
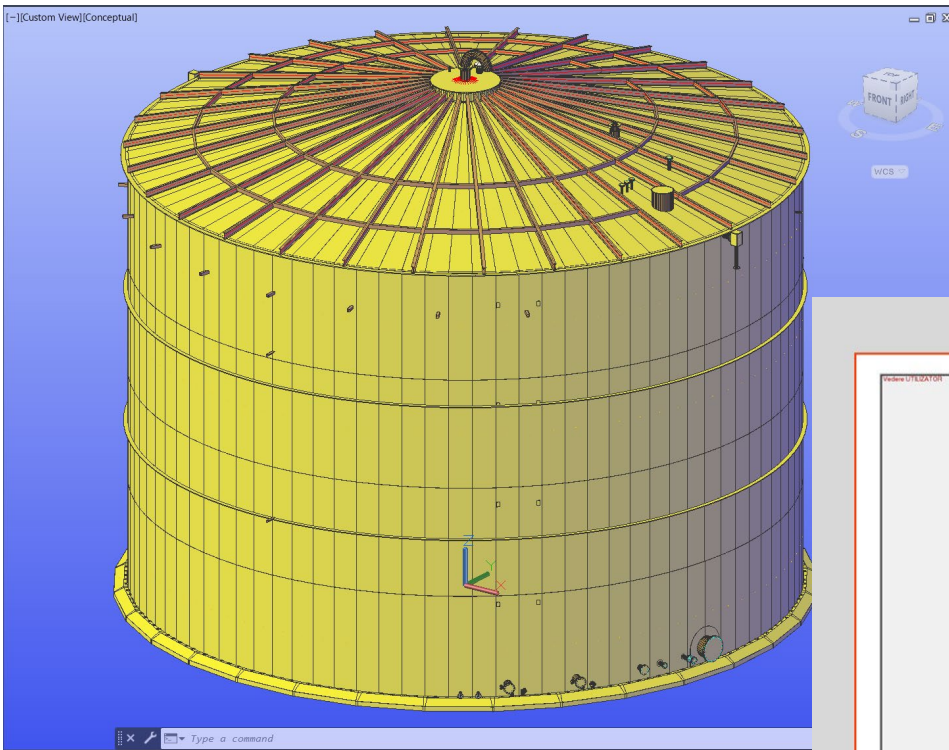


Steel silos for storage : “*Sludge incinerator – GLINA, ROMÂNIA*”





STORAGE TANK DESIGN– Software: GRAITEC ADVANCE DESIGN

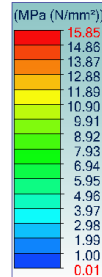
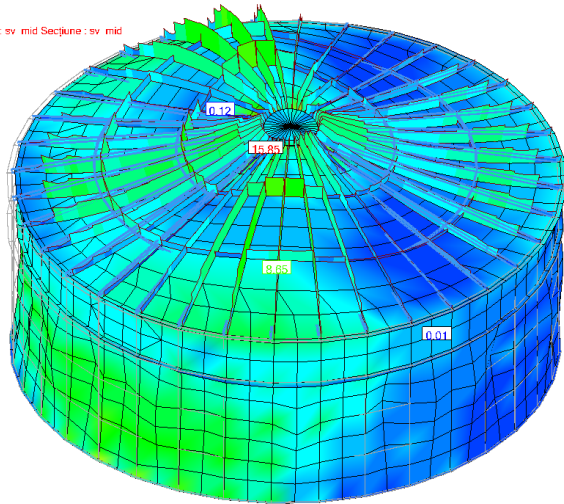




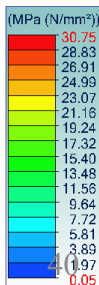
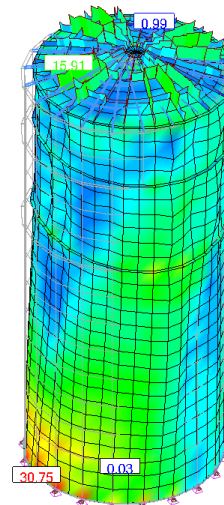
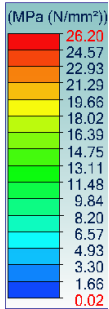
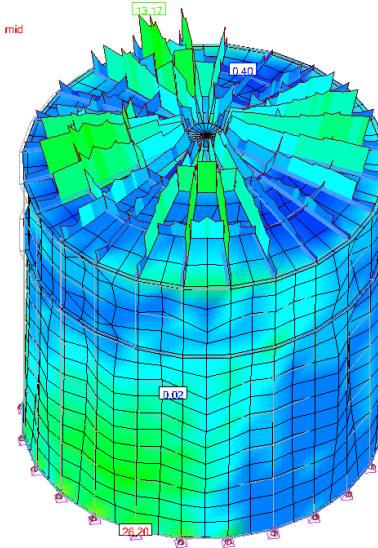
STORAGE TANK DESIGN— Software: GRAITEC ADVANCE DESIGN

Vedere UTILIZATOR
Analiza: 10 - Incercari din vant
Element linier : Sv Element plan : sv mid Seciune : sv mid
Axe locale
Valori interpolate

Vedere UTILIZATOR
Analiza: 10 - Incercari din vant
Element linier : Sv Element plan : sv mid Seciune : sv mid
Axe locale
Valori interpolate

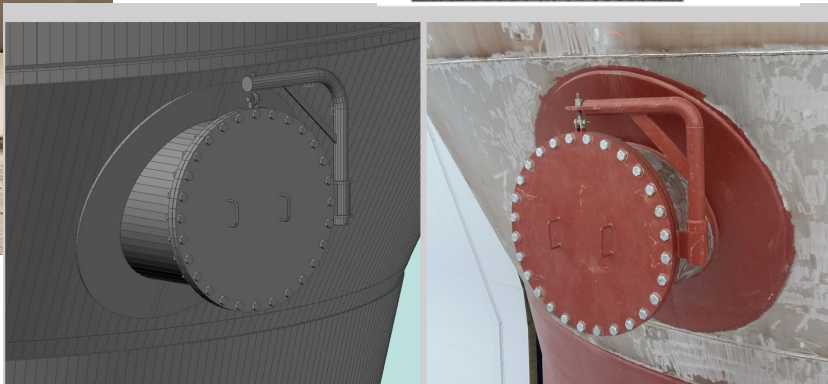
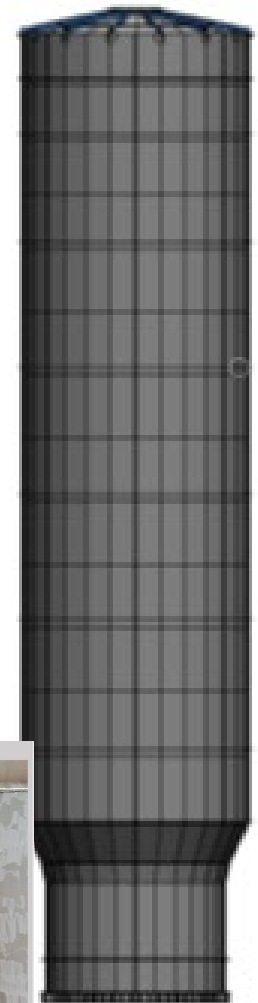
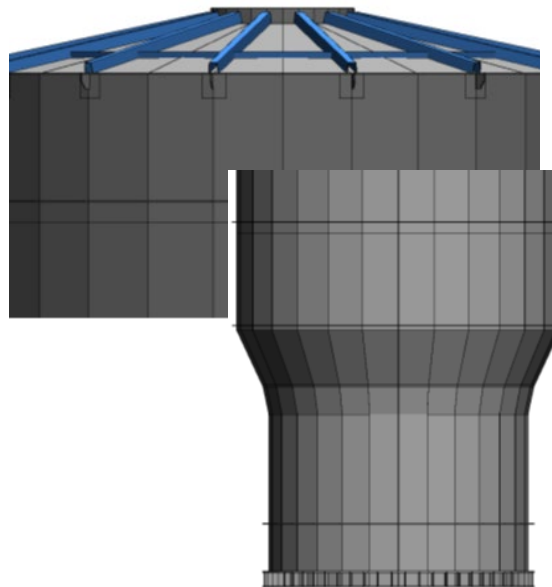


sv mid Seciune : sv mid





PULP TOWER DESIGN, $V=3000M^3$ Äänekoski, FINLAND

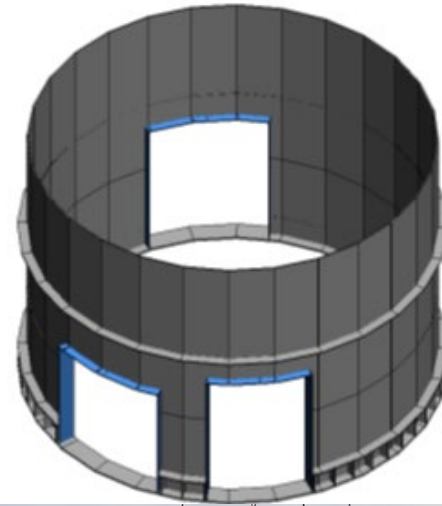




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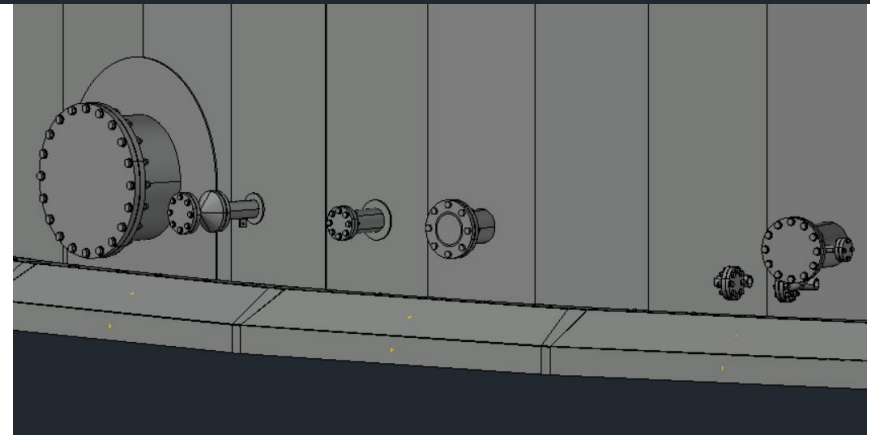
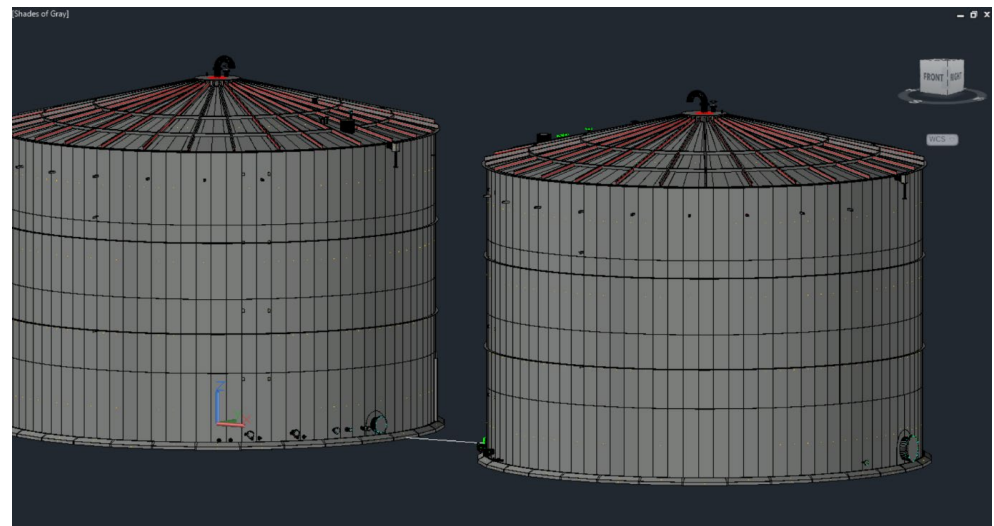
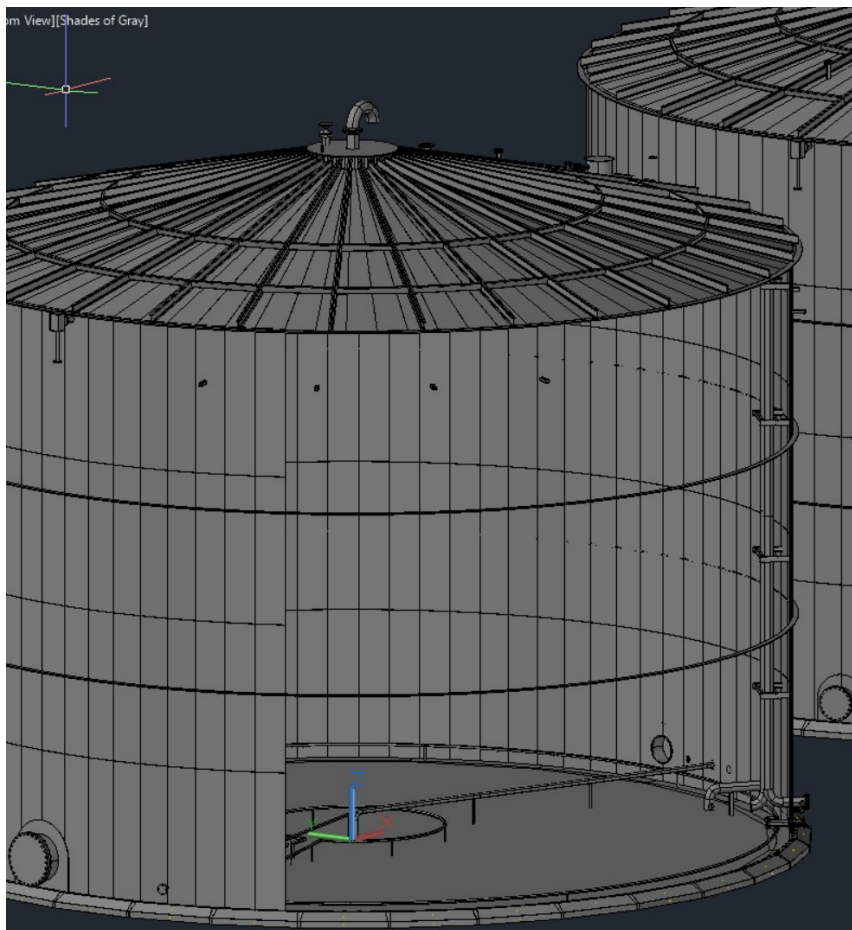


PULP TOWER DESIGN, $V=3000M^3$ Äänekoski, FINLAND



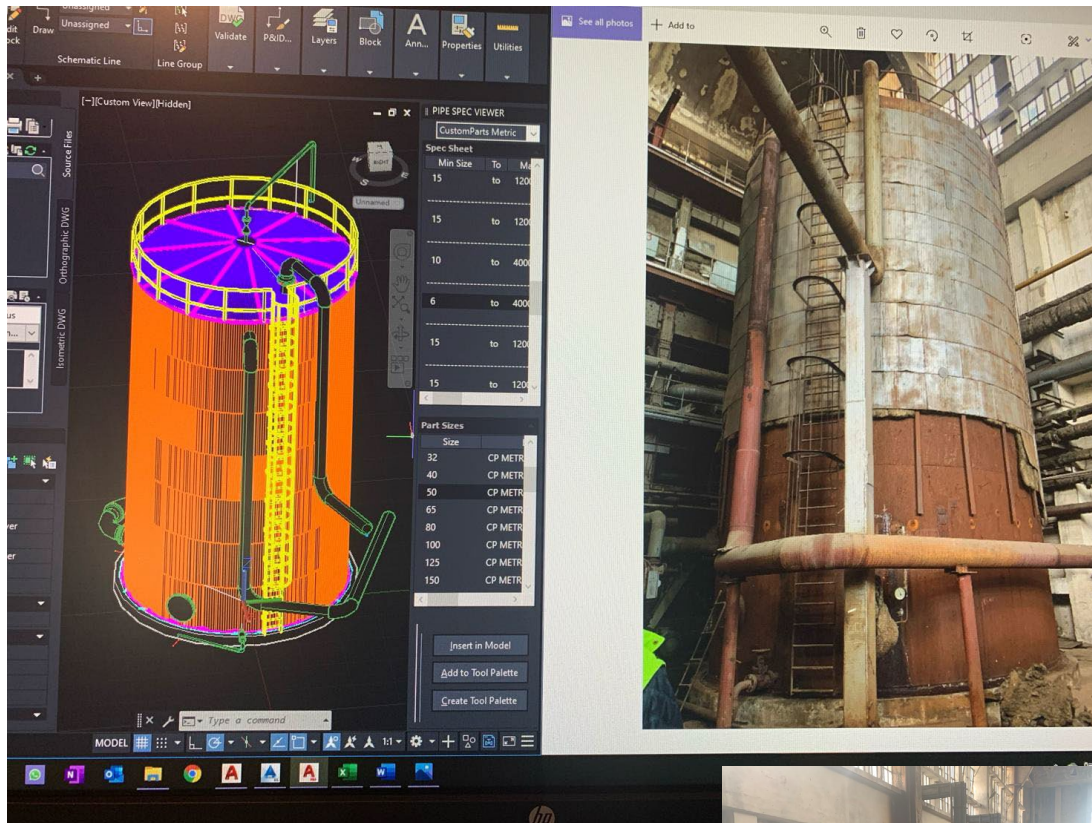


STEEL STORAGE TANKS FOR OIL PRODUCTS, Huutokoski, Finlanda,
 $V=3500\text{m}^3/\text{buc}$, $D=19\text{m}$, $H=13\text{m}$) –
3D Model – Autodesk Advance Steel





Steel storage tank retrofit –CTE Grozavesti - Electrocentrale Bucuresti





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SITE TECHNICAL ASSISTANCE





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THANK YOU FOR YOUR ATTENTION !

For more information about our company and further references,
please visit our website: www.pipesupport.ro

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