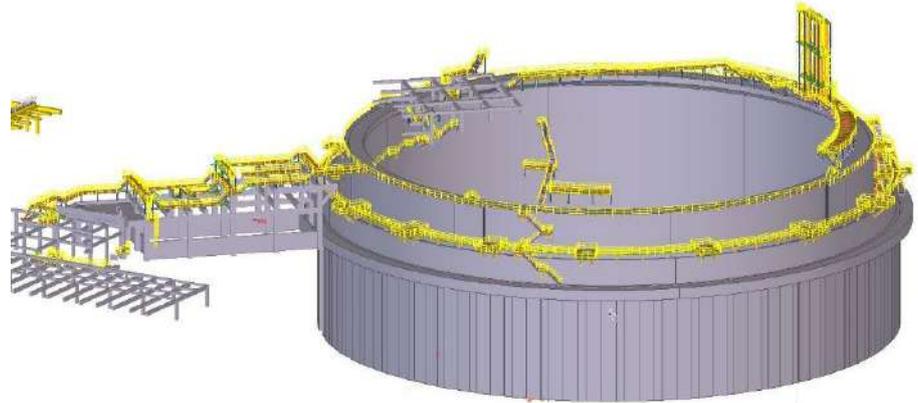
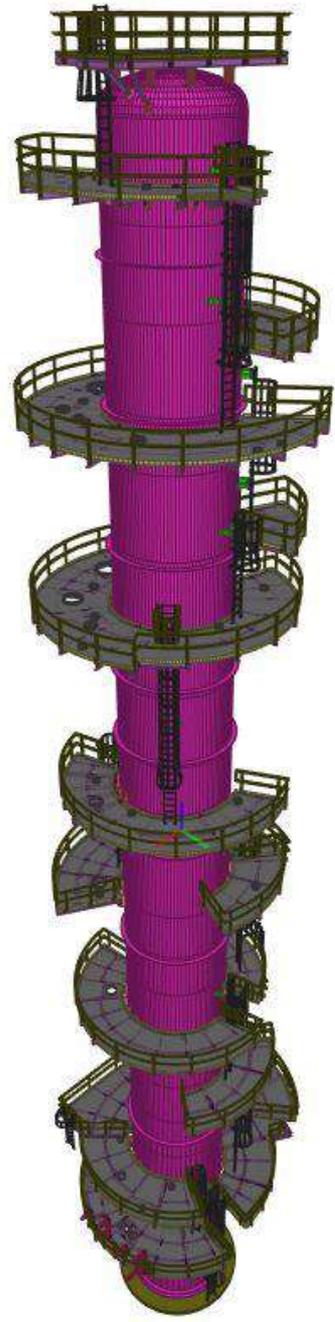
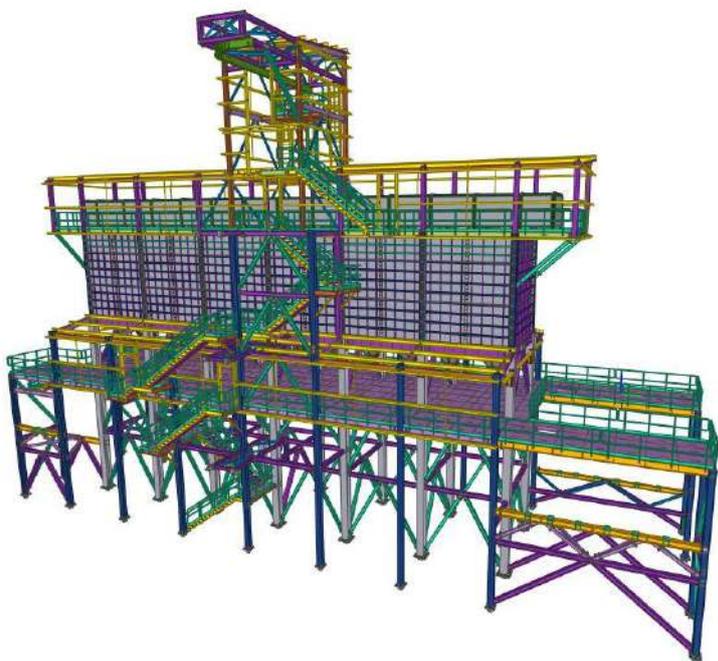
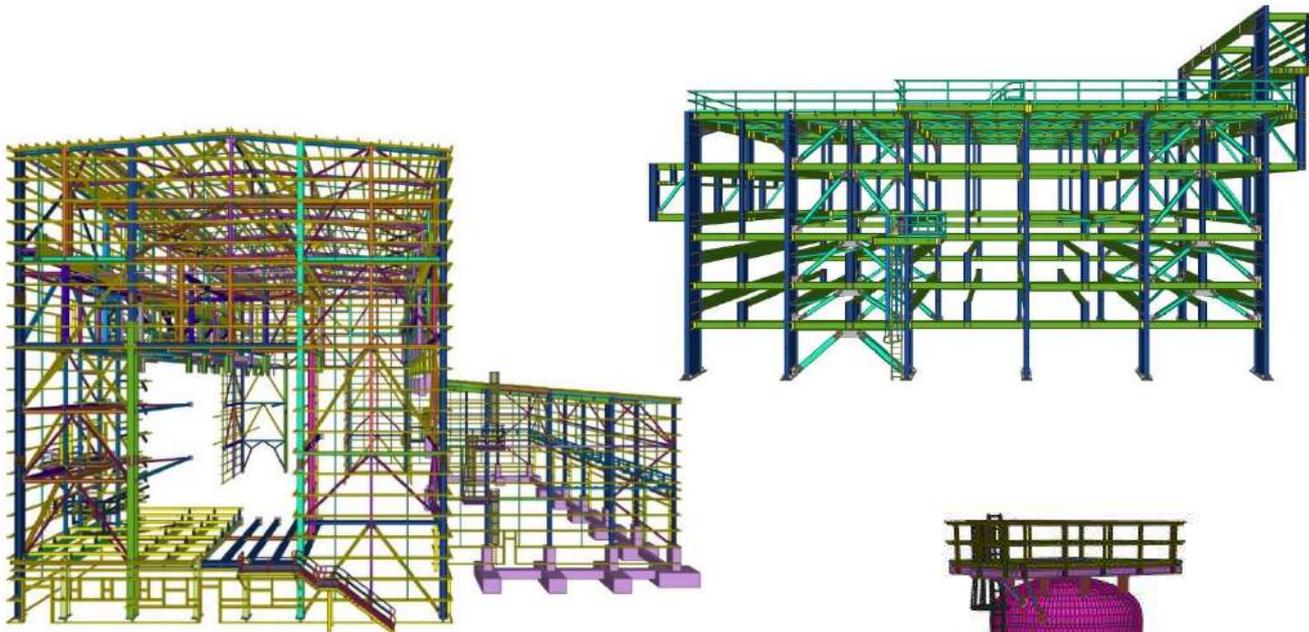




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ABOUT US

INGENIERÍA ALPACA

Established in 2000, Ingeniería Alpaca is a full-service detailing company, with a technical engineering office specializing in the field of steel structures, mechanical and piping.

Our team has over 20 years-experience providing Structural Engineering Services

SECTORS

- Industrial Projects
- Energy
- Oil & Gas
- Materials Handling
- Process Plants
- Fuel storage tanks & terminals
- Commercial buildings
- Civil engineering
- Piping



TEAM

- Project Managers
- Structural Engineers
- Steel detailers
- Administrative staff

TECHNICAL RESOURCES

- Tekla, SAP2000, Staad, CAD...
- 10 workstations, 3 Plotters
- ERP Software, FTP Server





SERVICES

STRUCTURAL ENGINEERING

All sizes of project. Efficient design and rapid schedule using 3D modelling.

Registered Professional Engineers. RFI process.

- General Layout Drawings
- BIM execution and coordination
- Seismic and Wind Analysis / Design
- Dynamic analysis
- Thermal analysis
- Failure analysis
- Finite Element Analysis
- Training

STEEL CONNECTION DESIGN

*Strong knowledge and experience background
Cost effective solutions*

*Full spectrum of codes: AISC, AS/NZS, ASCE,
Eurocodes, UBC, SBC, DIN, NCh CIRSOC...*

- Connection Design
- Welded connections
- Bolted connections
- Standard Connections
- Welding Engineering & welding procedures

SERVICES

STEEL DETAILING

Fully integrated solution related to structural steel fabrication

Good qualified team using Tekla Structures.

- BIM Modeling
- Conceptual drawings for approval
- Fabrication drawings
- BOM's
- As built documentation

MECHANICAL & PIPING

Mechanical Design of Pressure Vessels, Heat Exchangers, Tall Towers, Columns, and Storage Tanks

- Mechanical Design & Analysis
- FEA and Thermal analysis
- Detail Engineering
- Technical Documentation
- Fabrication Drawings

Expertise in designing piping layouts for Oil & Gas, Water Treatment, Power and Petrochemicals Industries.

Application of codes and standards ANSI, API and ASME

- Plot Plans & Layouts
- General Arrangements & 3D Plant Design
- 3D Pipe Routing
- Pipe Stress & Flexibility Analysis
- Pipe Support Design and Selection



PROJECTS

PROJECT	COUNTRY	YEAR	SIZE	STRUCTURAL ANALYSIS	CONNECTIONS	DETAILING	OTHERS
Detailing Engineering for Coker Fractionator Plaforms	Spain	2021	2 items			•	
Detailing Engineering for mall stairs	Spain	2021	6 items			•	
Warehouses steel structure	Spain	2021	165 tons		•	•	
Design for Material Handling System for Meltshop	Egypt	2021	105 tons	•	•	•	
Design for Material. Handling System for Meltshop	USA	2021	750 tons	•	•	•	
Combined Cycle Power Plant	India	2021	850 tons	•	•		
Design for Mat. Handling System for Meltshop	Bangladesh	2021	50 tons	•	•	•	
Training: Steel Structures Eurocode 3 (7 Editions)	International	2021	200 hours				•
Elevating and Disconnecting Substation	Chile	2021	12 Items			•	
Train workshops	Spain	2020	50 tons			•	
Boiler platforms and racks	France	2020	4 Items			•	
Design for Mat. Handling System for Meltshop	USA	2020	1 Item	•	•	•	
Design for Mat. Handling System for Meltshop	Canadá	2020	2 Items	•	•	•	
Waste to Energy - ERWtE	Australia	2021	1000 tons		•	•	
LNG pipe stress & Supports	Chile	2020	10 kms	•			
8 Steel Structures (Warehouses, industrial and sport facilities)	Spain	2020	450 tons		•	•	
Calculation of auxiliary structure for a train control panel	Spain	2020	1 item				•
Training: Steel Structures Eurocode 3	International	2020	200 hours				•
Combined Cycle Power Plant	Mexico	2020	800 tons			•	
Design for Material Handling System for Meltshop	USA	2020	1 Item	•	•	•	
Design for Material Handling System for Meltshop	Canada	2020	1 Item	•	•	•	
Pre-Evaporation Plant	France	2020	70 tons			•	
Training: Steel Structures Eurocode 3 & EAE	International	2020	200 hours				•
Process piping supports. SCI. Insulation details	Spain	2020	500 hours				•
Wind Farm. Mayor Structures	El Salvador	2020	4 Items			•	
Church deck	Spain	2019	30 tons			•	
Pedestrian bridge over railroad tracks	Spain	2019	30 tons			•	
4 Steel Structures (Industrial and sport facilities)	Spain	2019	150 tons	•	•	•	
Combined Cycle Tuxpan I	Mexico	2019	800 tons			•	
Steel structure for heritage conservation	Spain	2019	150 tons		•	•	
Boxes for Road Racing Circuit	Spain	2019	250 tons		•	•	
Hotel Reinforcement Structure	Spain	2019	250 tons			•	
Talara Refinery Modernization - PMRT	Peru	2019	2800 tons		•	•	
Handling of petroleum coke and sulfur - Duqm refinery	Oman	2019	150 tons	•	•	•	
Boiler platforms and walkways	France	2019	70 tons		•		
Municipal sports hall	Spain	2019	150 tons		•	•	
Pipe racks for adhesive manufacturing plant	Spain	2019	70 tons			•	
Pet Coke Grinding Mill Tower	Honduras	2019	260 tons			•	
Administrative building	Spain	2019	100 tons		•	•	
Pedestrian bridge over railroad tracks	Spain	2019	90 tons			•	
Design for Material Handling System for Meltshop	USA	2019	9 Items	•	•	•	
Truck Loading Facilily. La Rábida. Foundation Calculation	Spain	2019	1 Unit	•			
Modular administrative building	Guyana	2019	1000 m ²	•			
Design for Material Handling System for Meltshop	Netherland	2019	4 Items	•	•	•	
Combined Cycle DJELFA	Algeria	2019	14 Items			•	
Standard of joints in steel structures. Phase 2. AISC.	International	2019	1000 hours				•
Metal cutting industrial machines Factory	Spain	2018-19	400 tons	•	•	•	
Design for Material Handling System for Meltshop	Taiwan	2018	8 Items	•	•	•	
3 Passivhaus residential housing.	Spain	2018	3 Items	•			

PROJECT	COUNTRY	YEAR	SIZE	STRUCTURAL ANALYSIS	CONNECTIONS	DETAILING	OTHERS
5 Steel Structures (Industrial and sport facilities)	Spain	2018	150 tons	•	•	•	
Primary Crushing Units for Mining Project	Spain	2018	8 Items			•	
Design for Material Handling System for Meltshop	Iraq	2018	6 Items	•	•	•	
Truck Unloading Cover for Environmental Complex	Spain	2018	80 tons		•	•	
Seismic Analysis by FEA of electrical cabinet	Chile	2018	3 Units	•			
Fuel Oil Loading Station	Spain	2018	40 tons	•		•	
Combined Cycle Topolobampo III	Mexico	2018	1100 tons			•	
Wind Farm Tafila: Foundation Execution Method	Jordanian	2018		•			
Unloading Building for Silos Terminal Tornio Project	Finland	2018	100tons			•	
Pressure vessel and heat exchanger design.	Spain	2018	3 Units	•		•	
4 Transfer Towers for RAW Sugar Project	Saudi Arabia	2018	80 tons	•	•	•	
Bolivia Assembly Building	Bolivia	2017	80 units		•	•	
Several Structures for Shagaya Solar Thermal Power Plant	Kuwait	2017	80 tons	•	•	•	
220 kV Mas Figueres Electrical Substation	Spain	2017	10 tons	•	•	•	
Usine Energetique De Saint Ouen	France	2017	320 tons			•	
Cooper Sulfide Expansion Project	Turkey	2017	120 tons			•	
Phoenix Project EPC 1	USA	2017	150 tons			•	
LNG Truck Loading Facility. Melchorita. Structure Calculation	Peru	2017	3 Units	•			
Coal Grinding Mill Tower Double Cyclones	Jamaica	2017	53 tons			•	
Combined Cycle DJELFA	Algeria	2017-19	1100 tons		•	•	
TT04 Transfer Tower for Bellara Project	Algeria	2017	110 tons			•	
LNG Truck Loading Facility. Pampa Melchorita. Skid pipe	Peru	2017	3 Units	•			
TT04 Transfer Tower for Al-Zour Refinery Project	Kuwait	2017	70 tons	•	•	•	
LNG Truck Loading Facility. Melchorita. Foundation Calculation	Peru	2017	3 Units	•			
Gas Plant and Central Processing Plant.	Oman	2016	350 tons			•	
Stairs and Platforms for 5 ^o Tank of Zeebrugge LNG terminal.	Belgium	2016-18	450 tons	•	•	•	•
Training: Steel Structures Eurocode 3 (2016, 2017, 2018)	International	-	200 hours				•
Sines steel structure for fuel skid	Portugal	2016	20 tons	•			
Training: Steel Structures EAE (2014, 2015, 2016, 2017)	International	-	200 hours				•
Detailing Engineering for Hot Dip Galvanizing Line.	Russia	2016	600 tons			•	
Collapse of the roof of a warehouse. Analysis and solutions.	Spain	2015	-				•
Sulfur plant. Warehouse, Racks & Shelter	Mexico	2015	900 tons		•		
Advanced Training (2 editions): Design of steel connection.	Spain	-	136 hours				•
Combined Cycle DJELFA	Algeria	2015	1.200 tons			•	
LNG Skid pipe stress	Puerto Rico	2015	2 Units	•	•		
Skids Structure and foundation calculation	Puerto Rico	2014	2 Units	•			
Standard of joints in steel structures. Phase 1. Eurocode 3.	International	2014	2000 hours				•
Central Yanbu Phase III. Gas Ducts Sections.	Saudi Arabia	2014	500 tons		•		
Naftan Refinery (Novopolotsk). Pipe Racks	Belarus	2014	700 tons		•		
Office Building. Merk	Spain	2014	100 tons			•	
Umm Wu´al EPC. 5 Transfer towers.	Saudi Arabia	2014	200 tons	•	•		
Umm Wu´al EPC. 8 Belt Conveyors & 5 Transfer towers	Saudi Arabia	2014	5 Km	•	•	•	
Naftan Refinery (Novopolotsk). Coke Drums	Belarus	2014	1.800 tons		•		
TT02 TT04 Transfer Tower for AzSA Project	Spain	2014	70 tons				
Ship loading building.	Indonesia	2014	200 tons			•	
Basic Training: Steel Detailing	Spain	2014	40 hours				•
Truckshop. Antamina	Peru	2014	770 tons	•			
Water Tank Tower	Spain	2014	40 tons	•	•	•	
Central Yanbu Phase III. Steam turbine building.	Saudi Arabia	2014	3.000 tons		•		
"Planta Minera Inmaculada" 5 Belt Conveyors	Peru	2014	4 Km			•	
Gas generator Tower	New Caledonia	2014	200 tons			•	
Warehouse Vestas-Nacelles	Spain	2013	350 tons	•			
Belt conveyors structure. El Brocal	Peru	2013	110m			•	

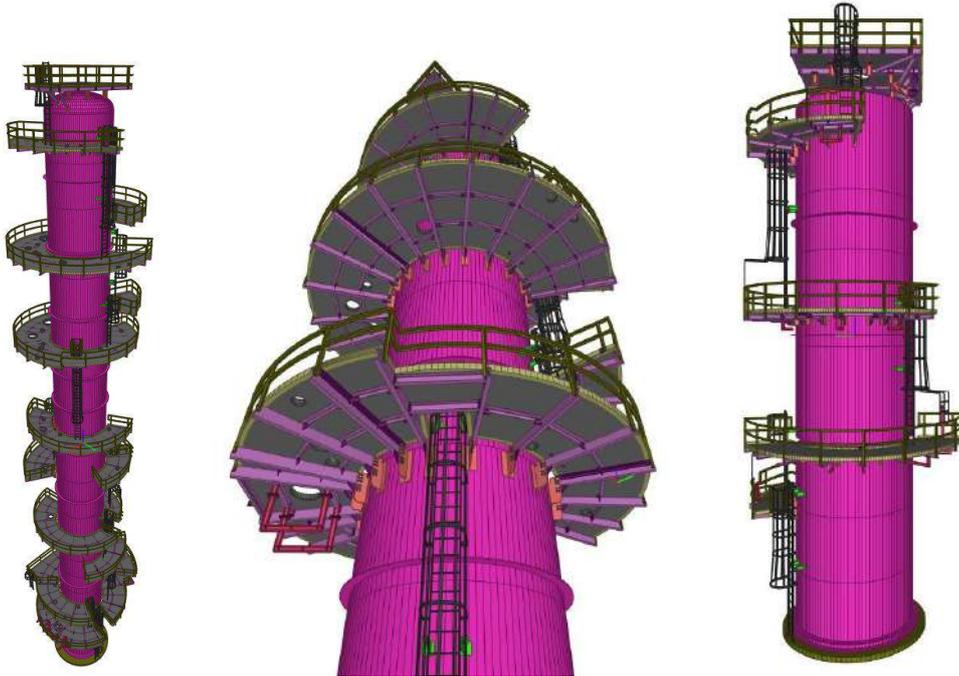
PROJECT	COUNTRY	YEAR	SIZE	STRUCTURAL ANALYSIS	CONNECTIONS	DETAILING	OTHERS
Philharmonie de Paris	France	2013				•	
Lifting rail. System to guide and raise wind power blades	Spain	2013		•			
Training: UNE-EN-1090	Spain	2014	16 hours				•
Fifa World Cup Stadium "Arena de Amazonia Manaus"	Brazil	2013	1.800 tons			•	
King Abdullah Sports City Stadium	Saudi Arabia	2012	300 tons			•	
Cover Platforms Jussieu	France	2012-13	500 tons			•	
Cerro Negro Norte. 13 Belt Conveyors.	Chile	2012	3,5 Km			•	
Big Bag's Building for buildings sulfates. (Toledo)	Spain	2011	500 tons		•		
Belt conveyors structure. Cement Hill	Belgium	2011	120 tons			•	
Edinburgh International Conference Centre	U K	2011	250 tons			•	
Painting Building, Renault/Nissan Factory	Morocco	2010	300 tons			•	
Power Plant, Artenius Mega PTA	India	2010	150 tons			•	
Factory Car Platforms, Renault/Nissan Factory	Morocco	2010	230 tons			•	
World Trade Center Path Hall. Precamber technical study	USA	2012	-				•
Air conditioning unit platforms	Spain	2011	150 tons	•			
Hybrid Plant	Spain	2011	240 tons		•		
CSP Plant "La Africana"	Spain	2011	230 tons		•		
Track Loading Station	Egypt	2011	200 tons	•			
Platform for Combined Cycle Sokna Port	Egypt	2011	250 tons			•	
Thermal Power Plant "Río Turbio"	Argentina	2010	1.200 tons		•		
Koudiet. Electrochoration Station. Racks	Algeria	2009	120 tons		•	•	

REFERENCES

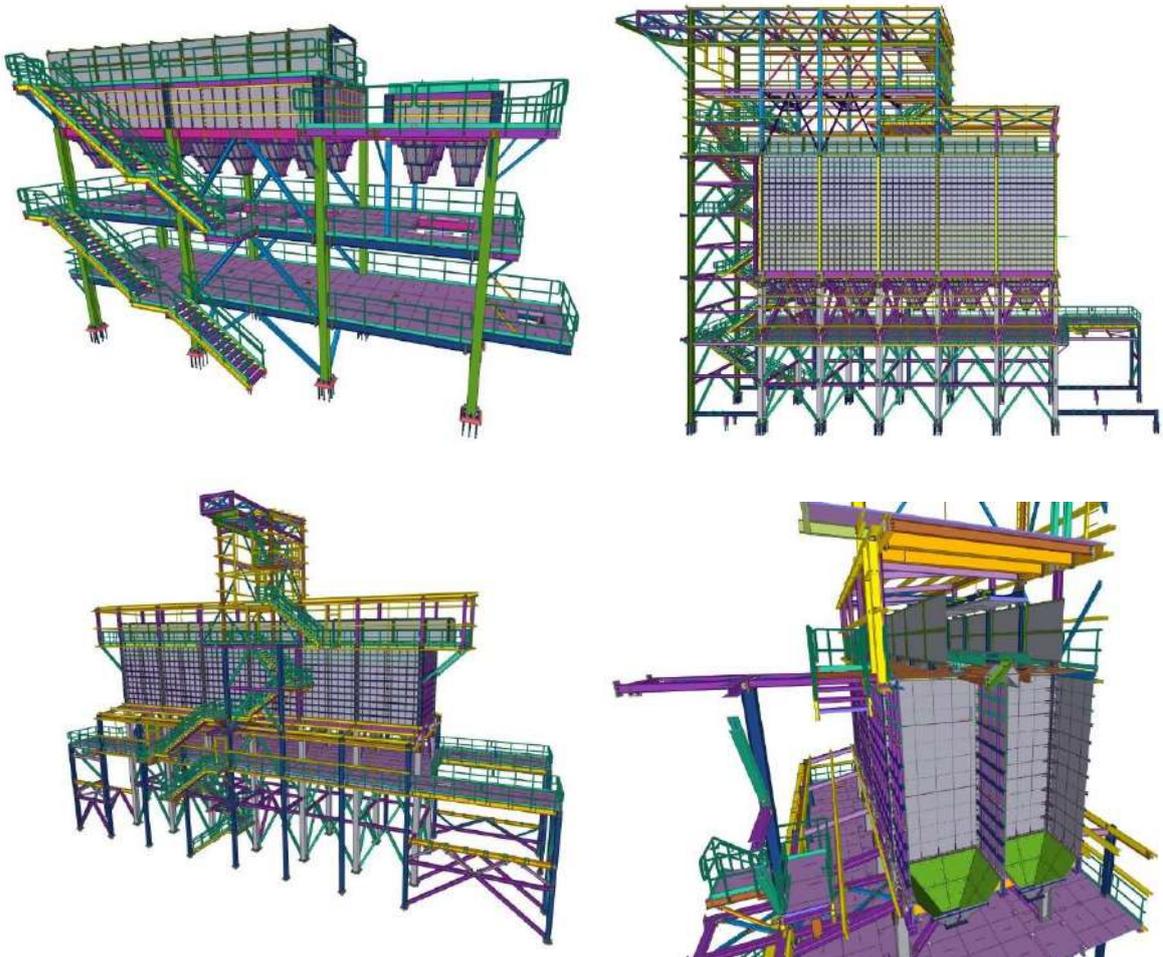


Projects in 36 countries – Present in 5 continents

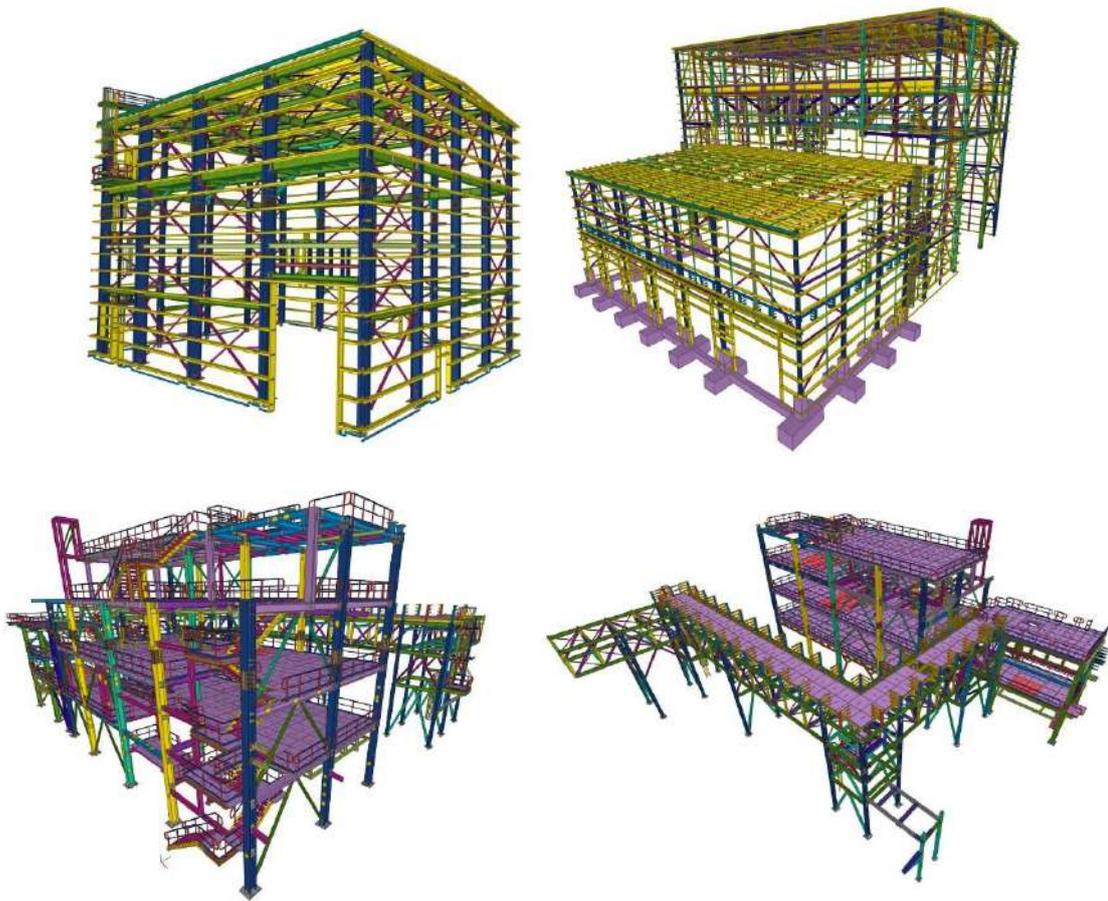
Coker Fractionator Platforms – Spain (2021)



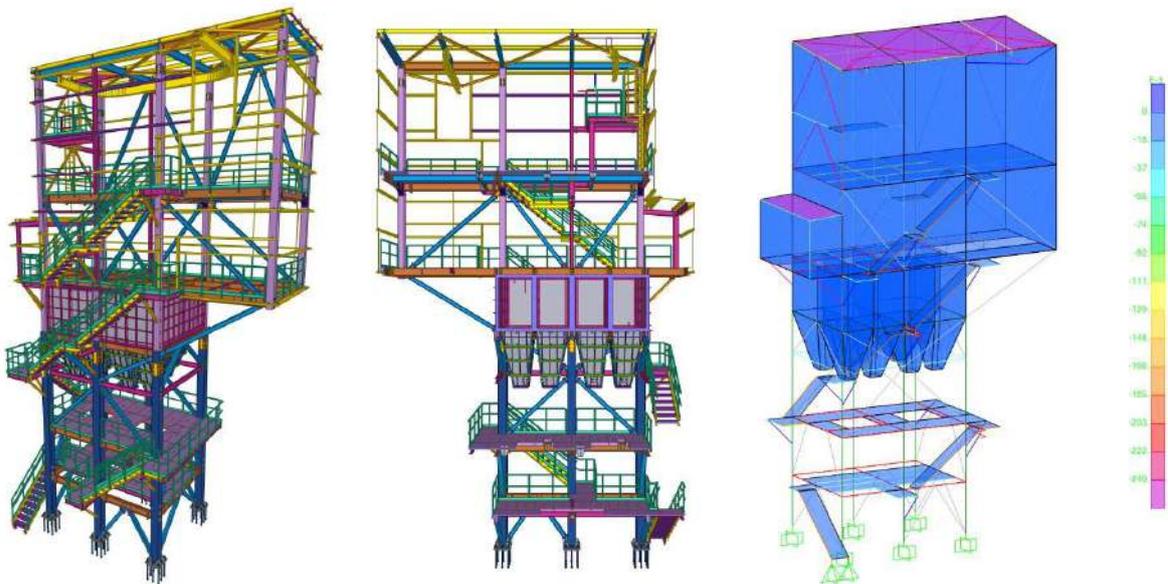
Design for Material Handling System for Meltshop – USA (2021)



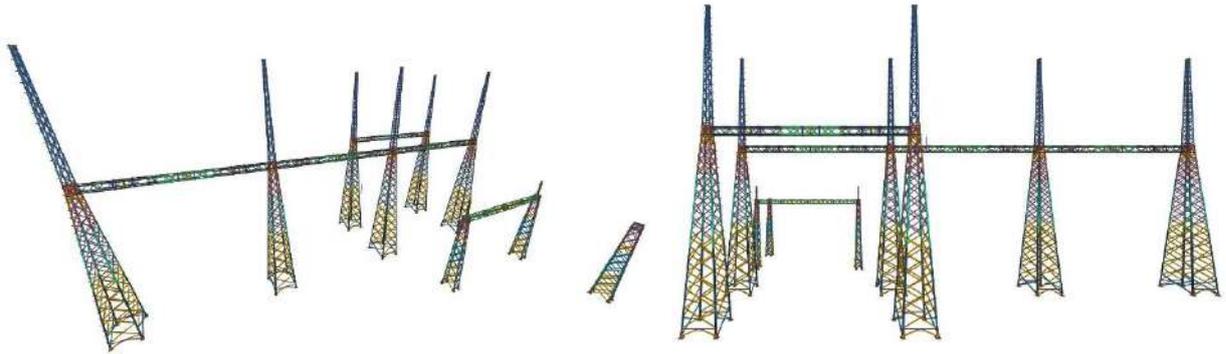
Waste to Energy – ERWtE ROCKINGHAM– Australia (2021)



Design for Material Handling System for Meltshop – USA (2021)



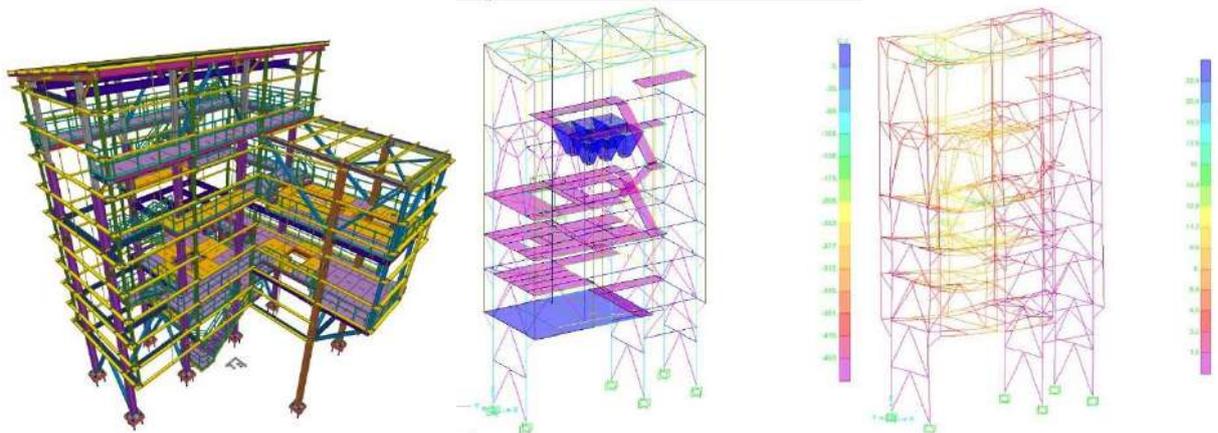
Elevating and Disconnecting Substation – Chile (2021)



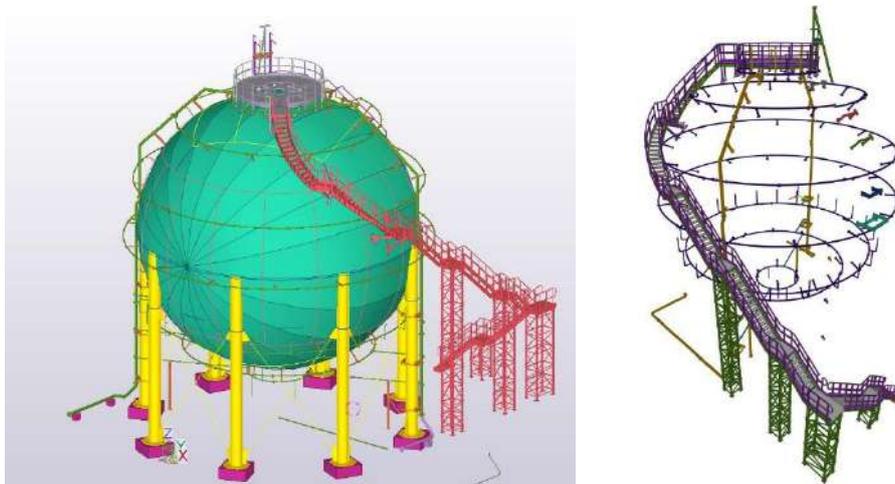
Combined Cycle Tama II – Mexico (2020)



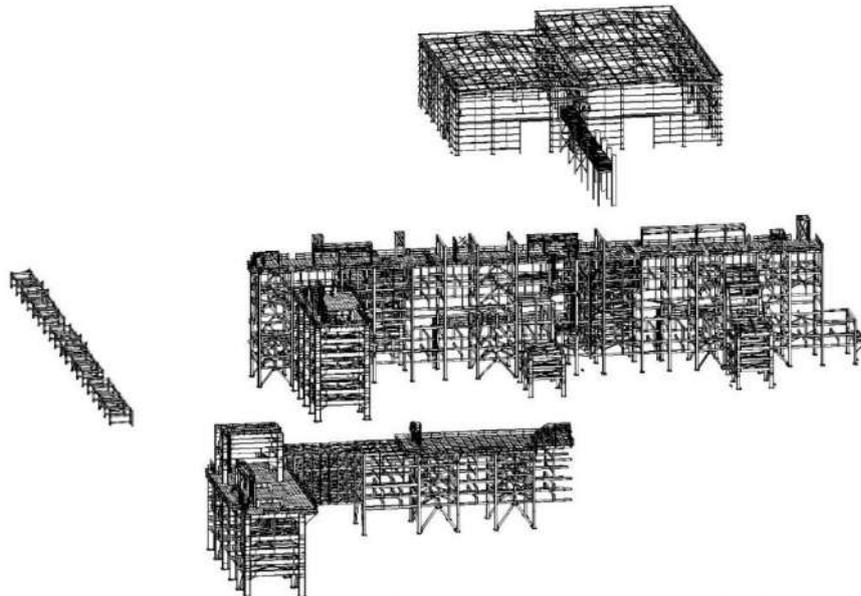
Design for Material Handling System for Meltshop – Canada (2020)



Process piping supports. SCI. Insulation details – Spain (2020)



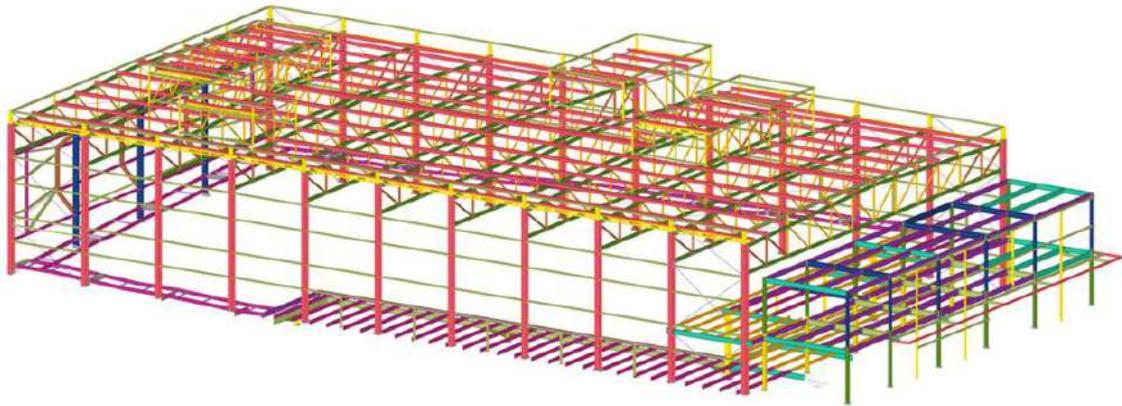
Talara Refinery Modernization (PMRT) – Peru (2019)



Handling of petroleum coke and sulfur – Oman (2019)



Steel structure for heritage conservation – Spain (2019)



Pipe racks for adhesive manufacturing plant – Spain (2019)



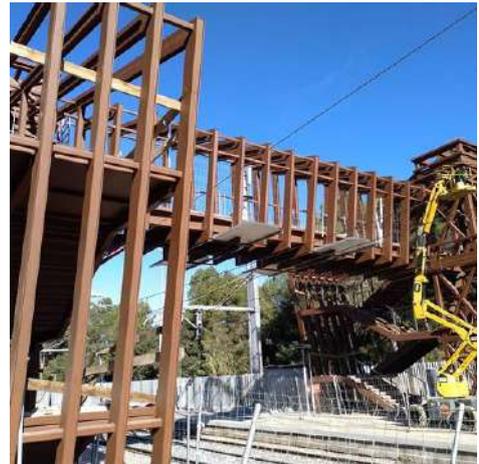
**Boiler platforms and walkways
France (2019)**



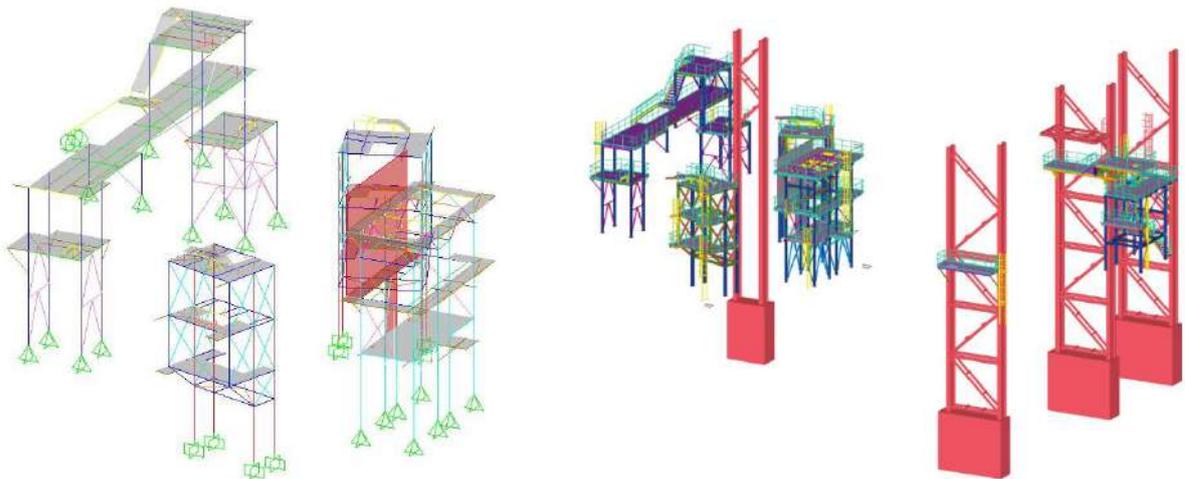
**Pet Coke Grinding Mill Tower
Honduras (2019)**



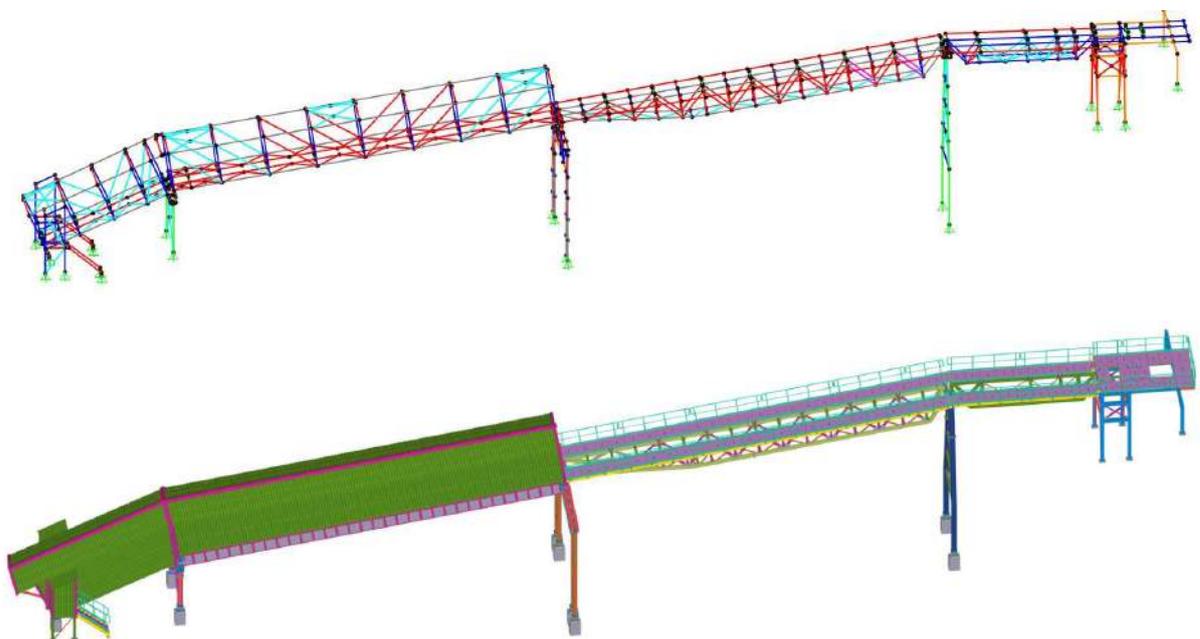
Pedestrian bridge over railroad tracks – Spain (2019)



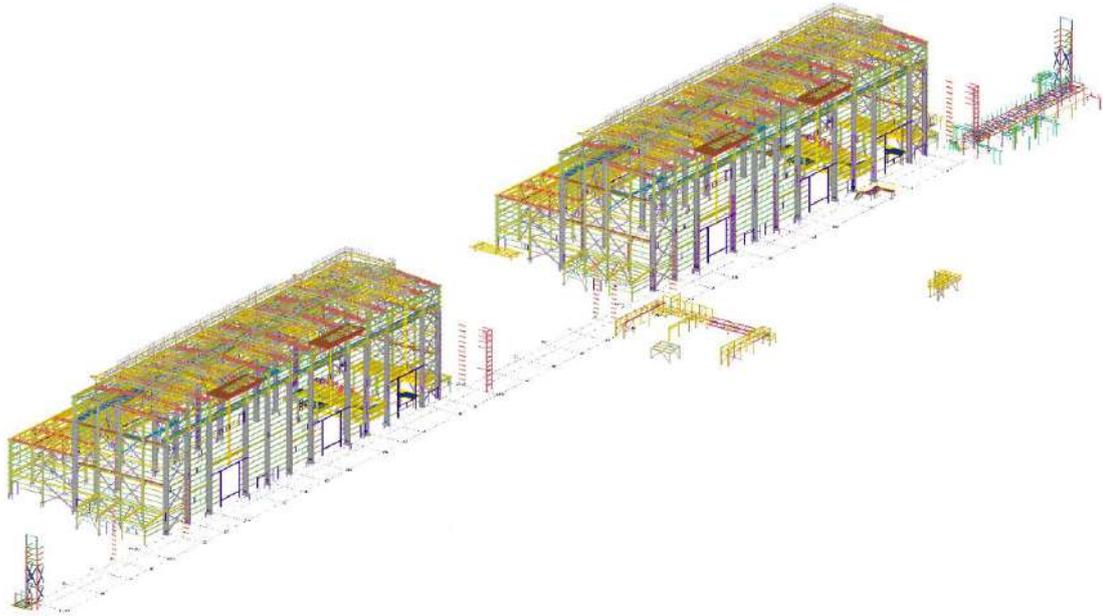
Design for Material Handling System for Meltshop – USA (2019)



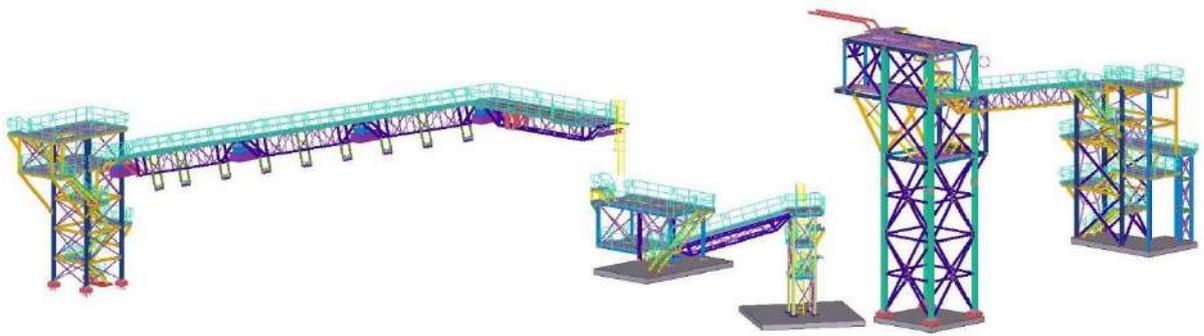
Design for Material Handling System for Meltshop – The Netherlands (2019)



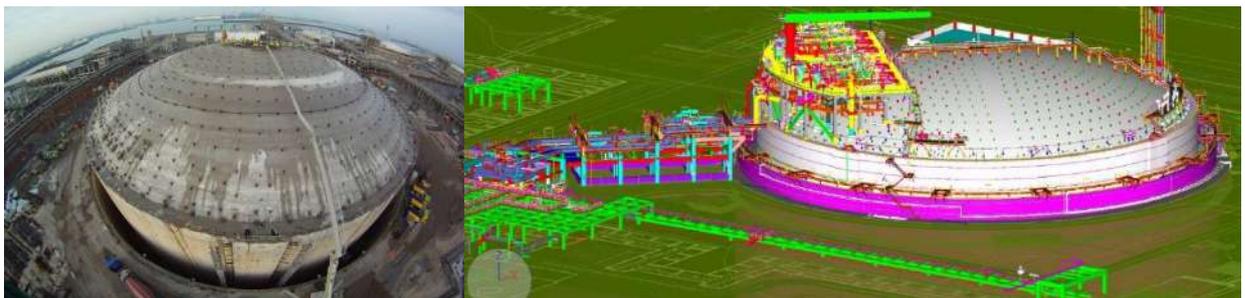
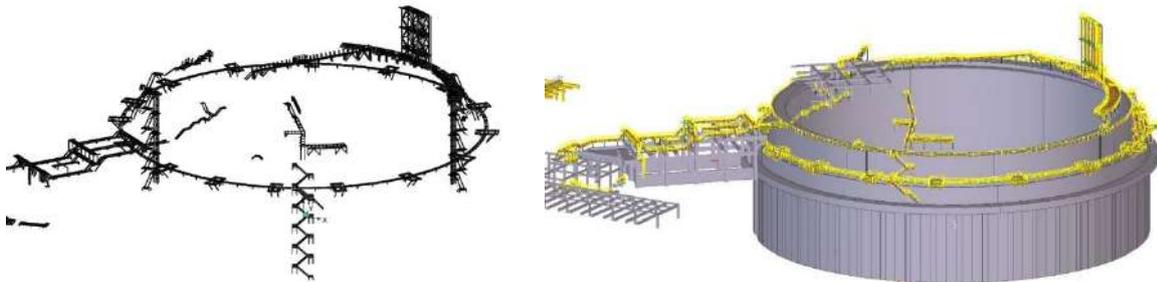
Combined Cycle DJELFA – Algeria (2019)



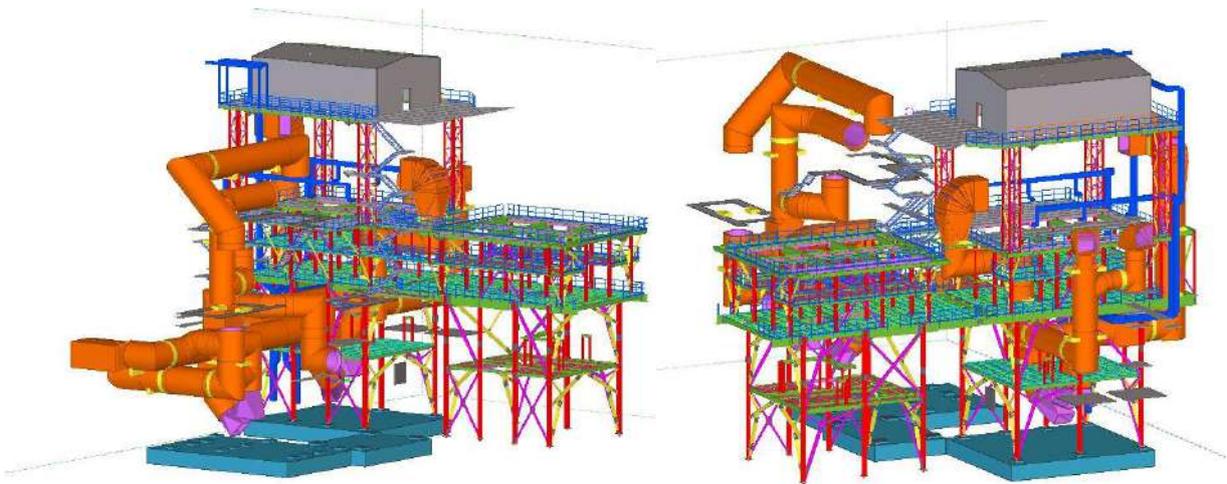
Design for Material Handling System for Meltshop – Taiwan (2018-2019)



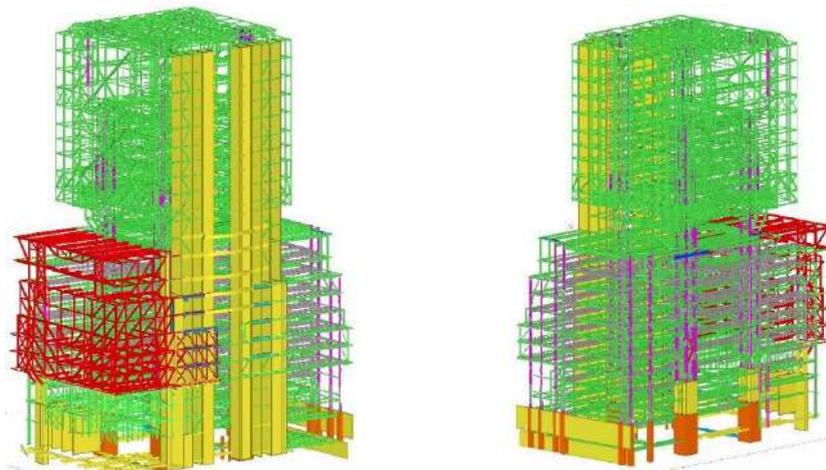
Stairs and Platforms for 5^o Tank of Zeebrugge LNG terminal (2018)



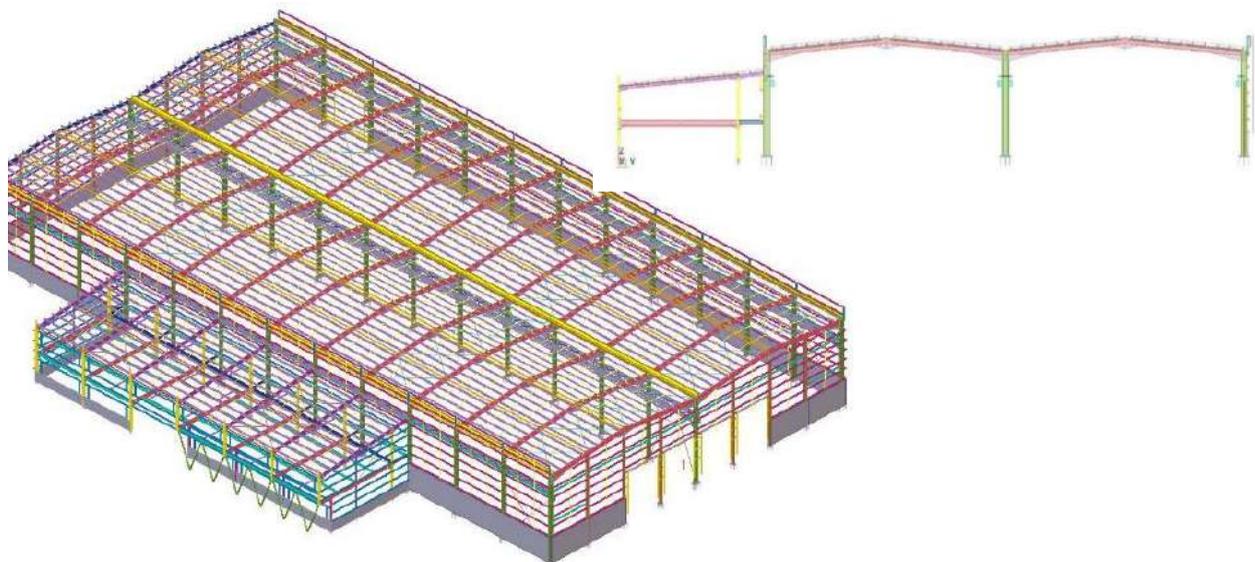
Usine Energetique de Saint Ouen (2018)



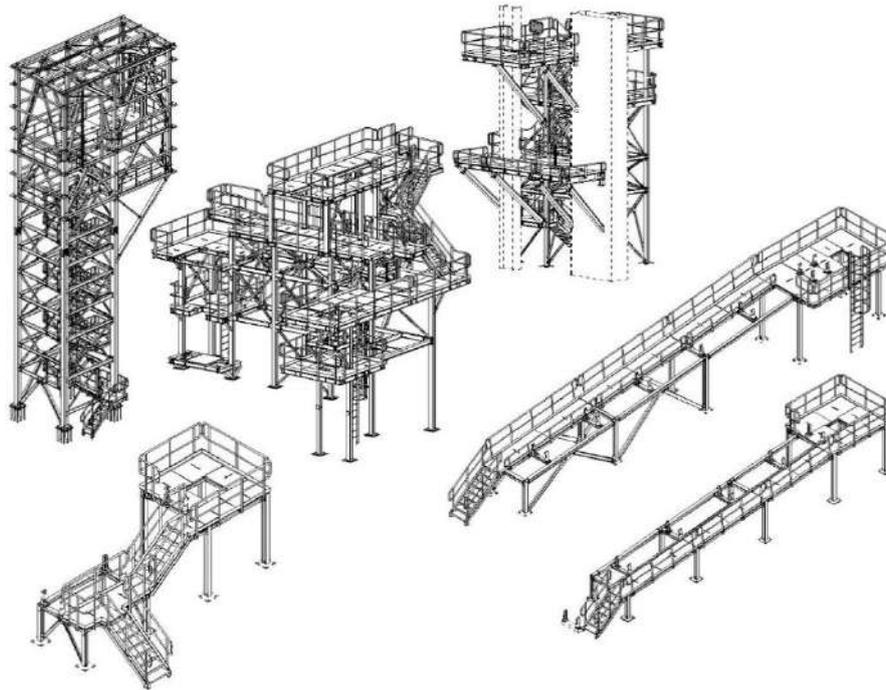
Bolivia Assembly Building (2018)



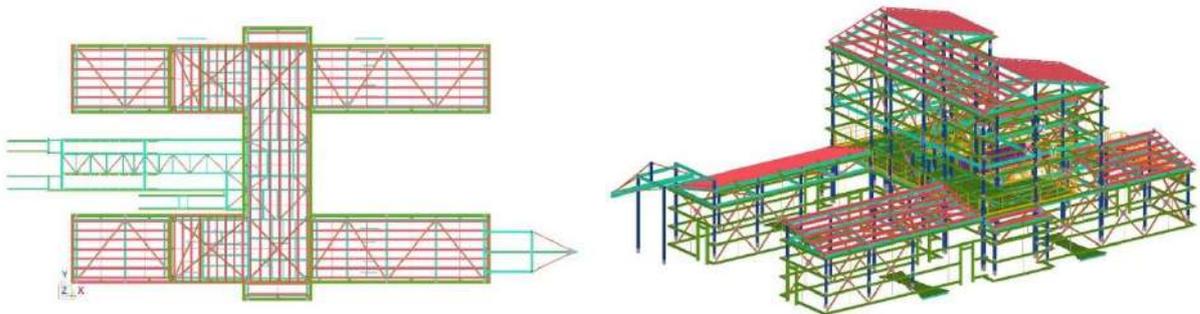
Metal cutting industrial machines Factory – Spain (2018)



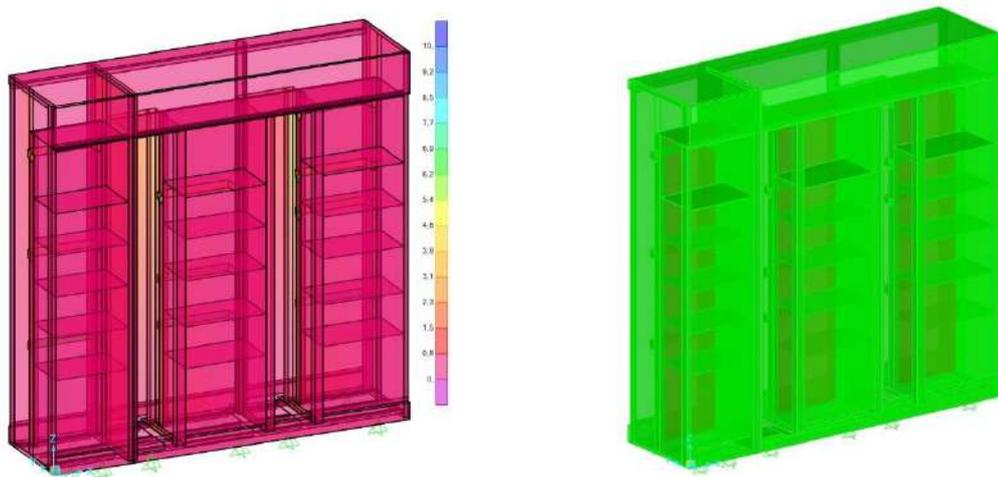
Design for Material Handling System for Meltshop – Iraq (2018-2019)



Unloading Building for Silos Terminal Tornio Project – Finland (2018)



Seismic Analysis by FEA of electrical cabinet MONTREL– Chile (2018)



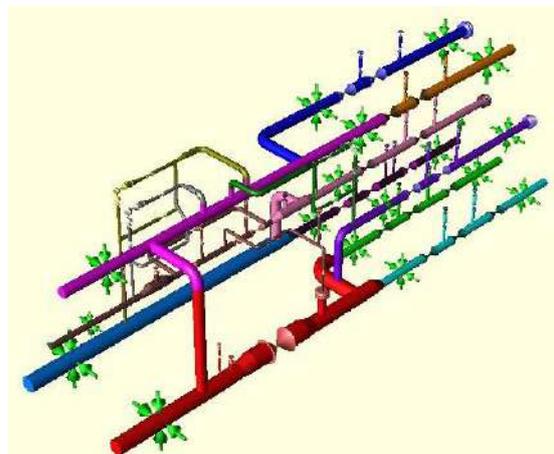
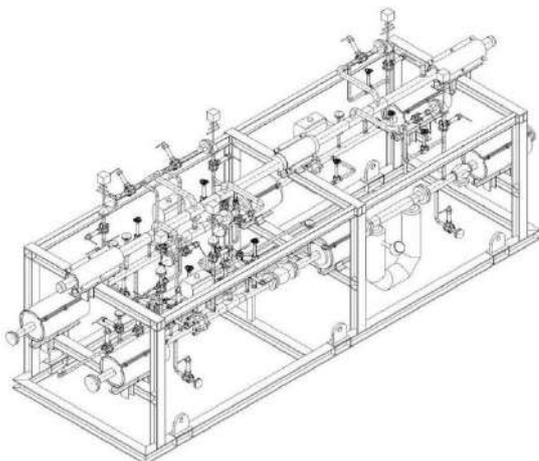
Combined Cycle Topolobampo III – Mexico (2018)



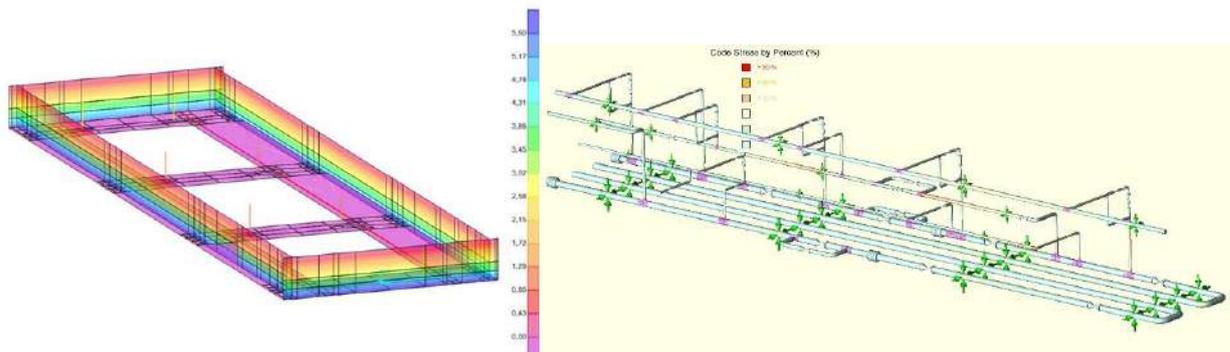
Combined Cycle DJELFA – Algeria (2017)



LNG Truck Loading Facility. Pipe stress & Structural Calculation Peru (2015)

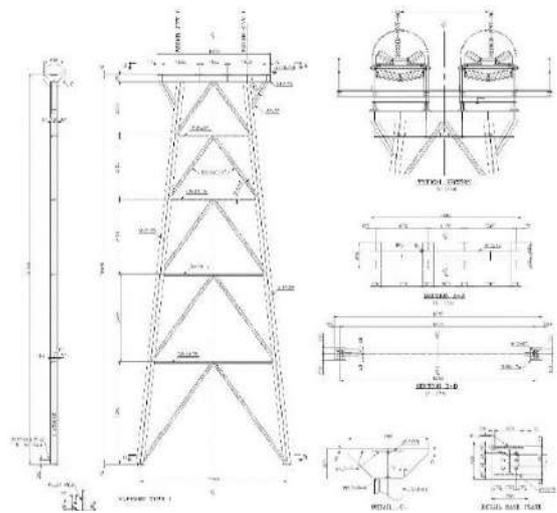
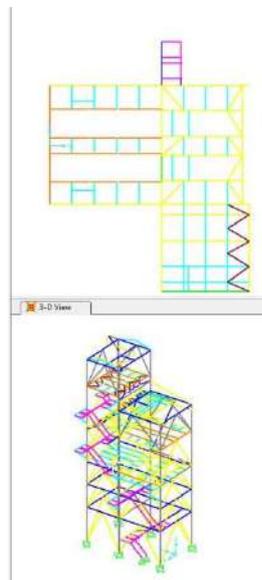
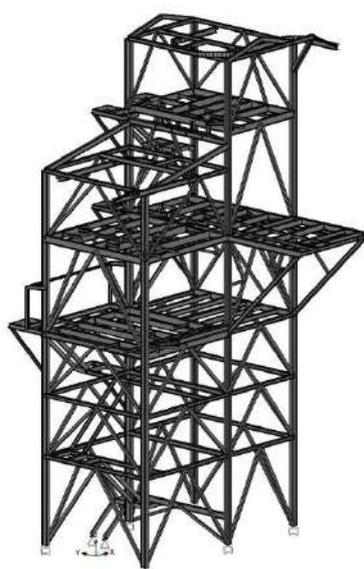


LNG Skid structure and foundation calculation, – Puerto Rico (2015)



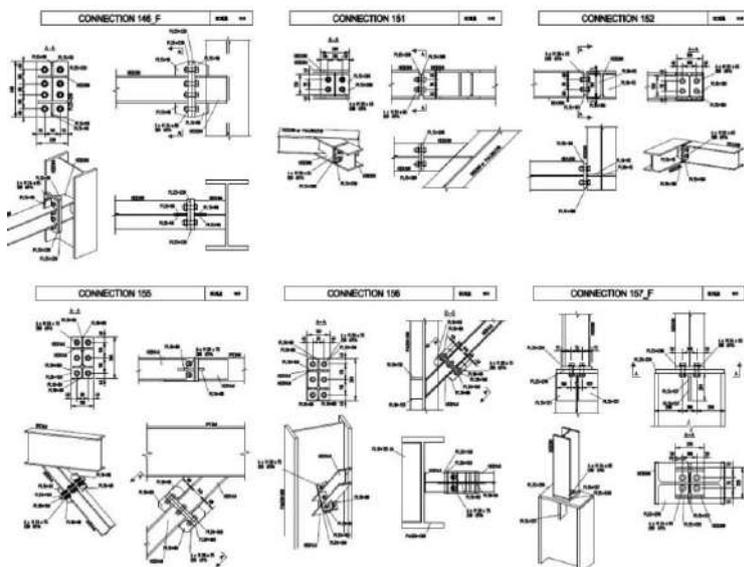
Umm Wu'al EPC - Saudi Arabia (2014)

8 Belt Conveyors Umm Wu'al EPC Saudi Arabia (2014)

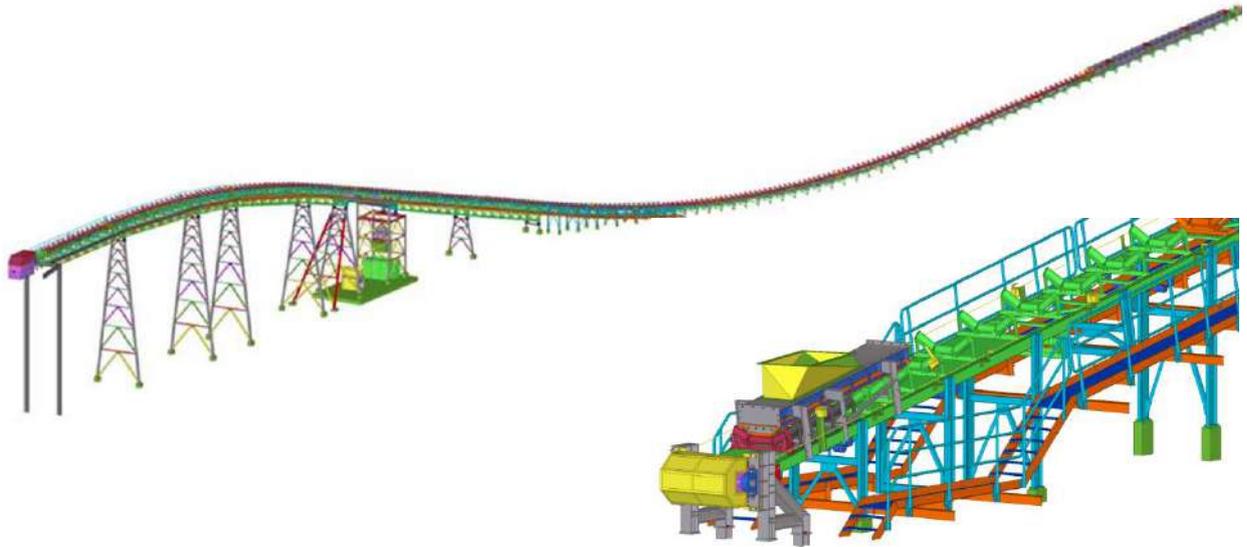


Steel connection design OSJC Novopolotsk. Belarus (2014-2015)

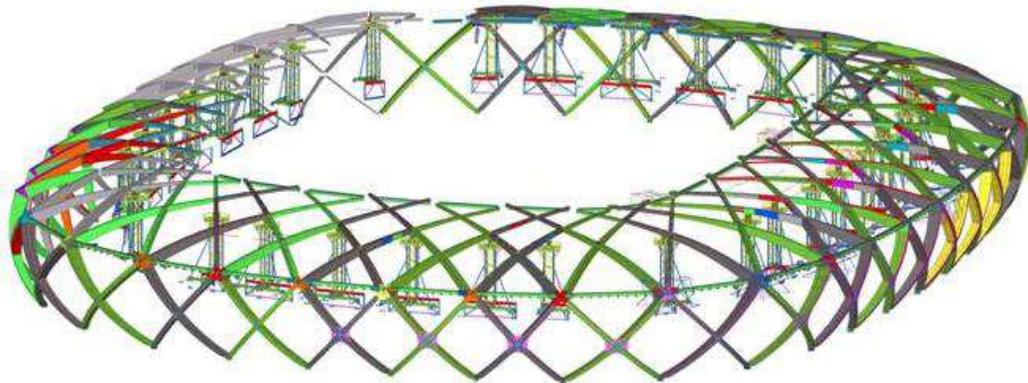
Ship loading building Indonesia (2014)



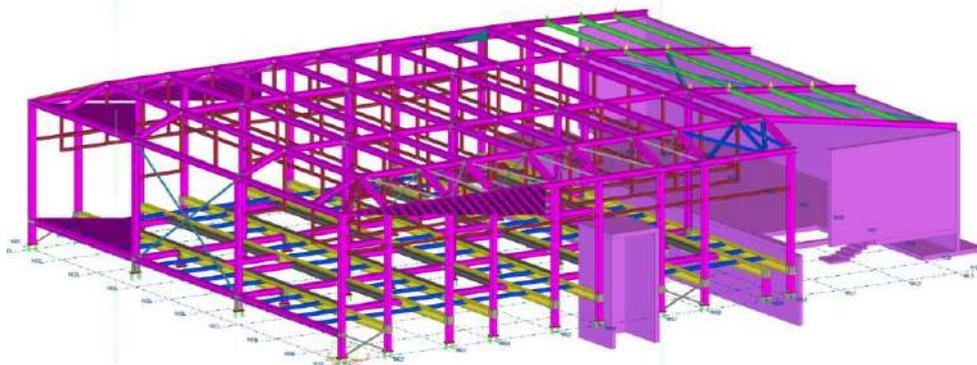
Cerro Negro Norte. 13 Belt Conveyors – Chile (2012-2013)



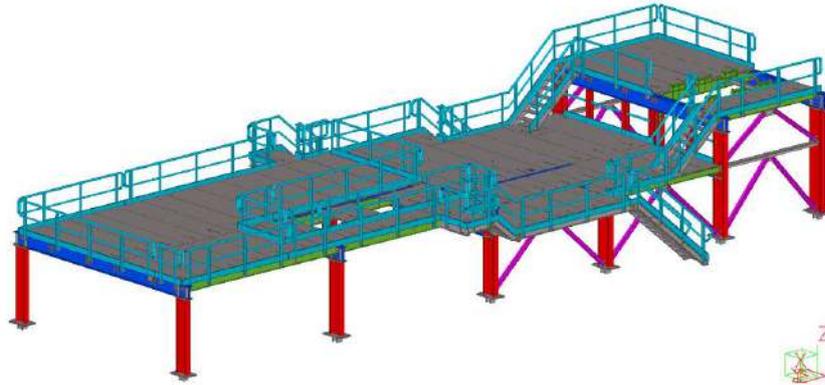
FIFA World Cup Stadium "Arena de Amazonia Manaus" - Brazil (2013)



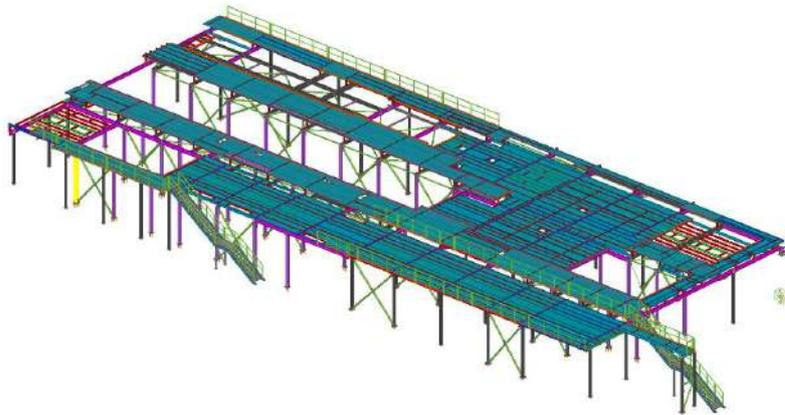
Warehouse "Jussieu" – Paris (2013)



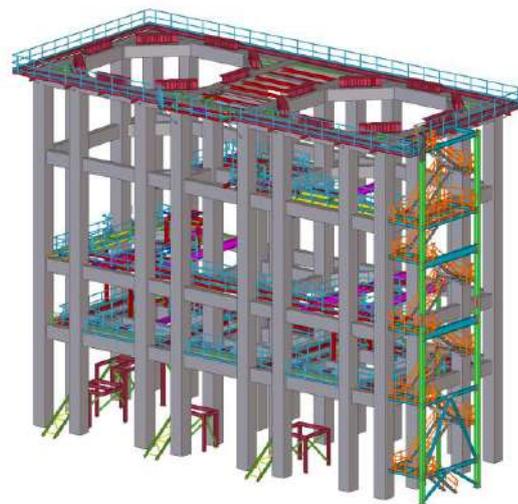
Bulk terminal project - Egypt (2011)



Renault/Nissan Factory. Platforms - Tangerang (2010)



Artenius Power Plant - Mumbai (2011)





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