

# ENGINEERING SOLUTIONS FOR OIL & GAS INDUSTRIES

Company Profile

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## Overview

TETCO offers solutions for various needs, from the supply of fabricated material to the management of projects. Our careful and reliable choices are always designed to meet our customers' exact needs. Our innovative spirit is reflected in every job that we undertake. Our simple yet organized structure means the right people are always easily accessible to our clients.

With more than 30 years of experience and achievements, TETCO is now accepted as a leader in their field of operations. Our success has been built on customer satisfaction and loyalty. This satisfaction is based on our performance in the execution of contracts and the reliability of our designs and products.

TETCO offers complete solutions for the Oil & Gas Industries starting from design and detailed engineering to procurement, fabrication, and construction and commissioning of bulk and process plants.

Our continued growth is based on the continuous evolution of our techniques and personnel through updated technologies and training to new methods and applications in our field.

The various departments work in complete harmony and synchronization to produce a final product that is safe, reliable, and effective.



## History



**TETCO started in the Kingdom of Saudi Arabia in 1980 as a small fabrication yard servicing the Oil & Gas and Power sectors of the Kingdom.** The small yard's activities and scope expanded to cover more activities and more sectors of the industry. By the mid nineties, TETCO had already moved to a new larger location equipped with better equipment and technologies. At the same time, we established our offices in Beirut to serve our activities in Saudi Arabia and other countries in the middle east and north African regions.

Better equipped, TETCO continues to date to venture and reap its reward by participating in medium to large-scale projects. Domestic projects with international clientele have opened new areas of developments. Focus in marketing strategy was redirected towards project specific specialization.

A broader and global scope is now conceived and growing demand in the international market has led TETCO to establish several offices in the region. Currently all our fabrication works are being carried out at our new production facility in Lebanon. The facility has been equipped to handle fabrication for all types of projects servicing our markets.



## Management Statement

**TETCO management commits its best efforts to achieve the following targets:**

- To conduct our business aiming for the highest ethical standards possible
- To ensure the well being of the surrounding community
- To ensure a work climate that embraces diversity
- To offer our personnel the continued career development and self-enhancement
- To provide a safe, healthy and enabling work environment
- To provide our customers with the benefits of a safe and environmentally friendly atmosphere





QHSE

All activities associated with the provision of services supplied by TETCO to their customers, shall be governed by a Quality System complying with the stipulations of ISO 9001:2000  
TETCO Management will maintain an effective Quality System by

- Establishing clear, measurable Quality Objectives in all areas of operation.
- Continually monitor, review and strive to improve the Quality System and processes
- Our customers are our lifeline we will establish partnerships at all levels with our clients so that we completely understand customer requirements.
- Meet all mandatory requirements whether Local, National and International for regulations and statutes wherever we work.
- Committed to the health, safety of the work force and stakeholders.
- Reduce our impact upon the environment through adjusting aspects of our performance.
- Raise awareness among all the employees, to ensure that they are aware of the contribution that the make towards the client, their safety and the impact upon the environment.
- Define responsibilities and lines of communication for each department or discipline.



# Organization

Over the years TETCO have established a reputable name in several countries in the **Middle East & North Africa**.

We currently have active presence in the following countries:

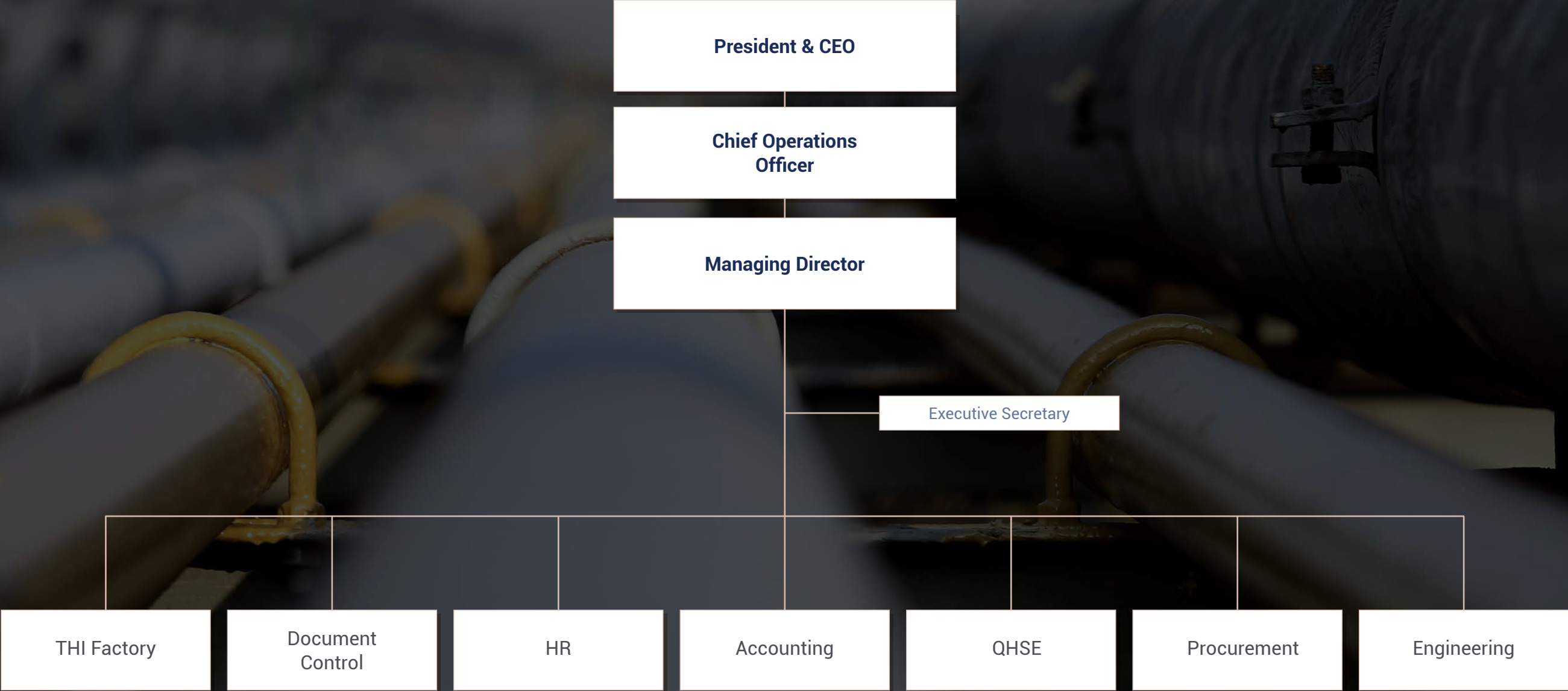


The TETCO family includes:



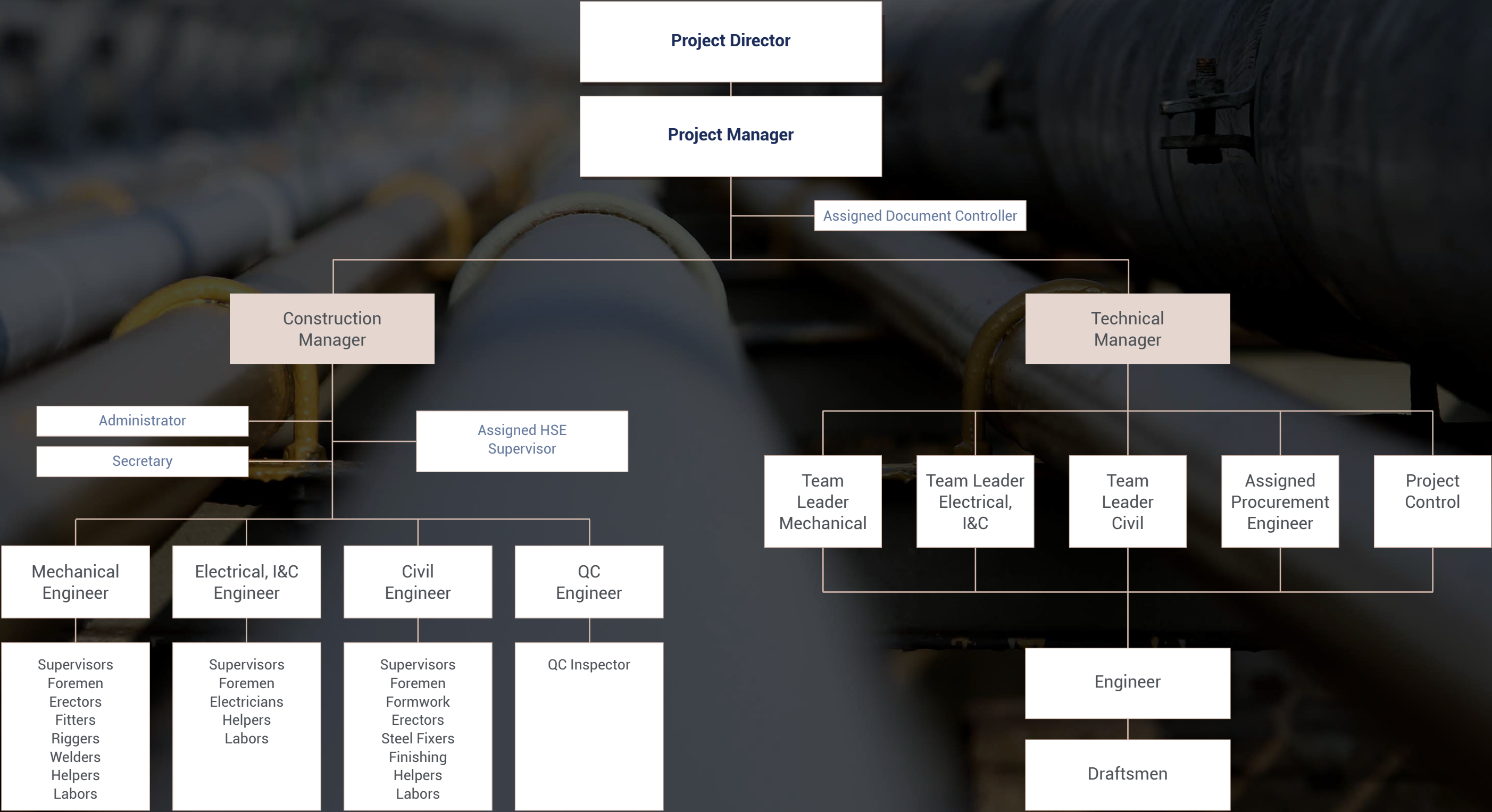


Company Organization Chart





Typical Project Organization Chart





## Our Products

TETCO designs, engineers and constructs energy infrastructure projects providing a full spectrum of EPC solutions. Relying on more than thirty years of experience TETCO safely and reliably executes its projects all around the Middle East, North & East Africa regions.

From our beginnings as a manufacturer and erector of steel structures and storage tanks, we have grown to our current ability to offer EPC services for a wide range of projects related in the Oil & Gas sector.

### OUR FOCUS IS ON:

- Design, Engineering, Procurement and Construction of Storage Tanks and Vessels
- Design, Engineering, Procurement and Construction of process plant piping systems and pipelines, including philosophy of plant and stress analysis
- Storage Tanks repair and maintenance
- Sphere construction and repair
- Supply and erection of welded heavy steel structures
- Associated pipe work and process plant installation
- EPC handling of Bulk Plants and Processing Plants

- |               |                      |
|---------------|----------------------|
| • Design      | • Construction       |
| • Engineering | • Commissioning      |
| • Procurement | • Project Management |
| • Fabrication |                      |

TETCO's services today cover a wide range of related industries offering EPC services for the Oil & Gas Industries with concentration on the following fields:

- Oil & Gas
- Petrochemical
- Chemical Process Plants
- Power
- Water & Waste Water (Storage & Distribution)

Our self-dependent construction capabilities set us apart from other contractors. We bring our well established knowledge and experience to all our projects, while attending to the unique attributes of each location in terms of logistics, legalities, and market situation. Our well-trained and experienced personnel, with their varied backgrounds, can handle the toughest of project conditions as well as benefit from available human resources at each location weather qualified or trained by our staff.



Moreover, our construction techniques are continuously updated to stay updated with the latest technologies in the field of construction. Our designs and pre-fabrication works allow us to deliver material that leaves the minimal fabrication or adjustment works for the job sites. Our aim is to reduce crowing activities at site and minimizing risks of delays during the construction phase.

In brief, we are capable of delivering complete projects starting from conceptual design to Engineering through to commissioning.



## Our Products

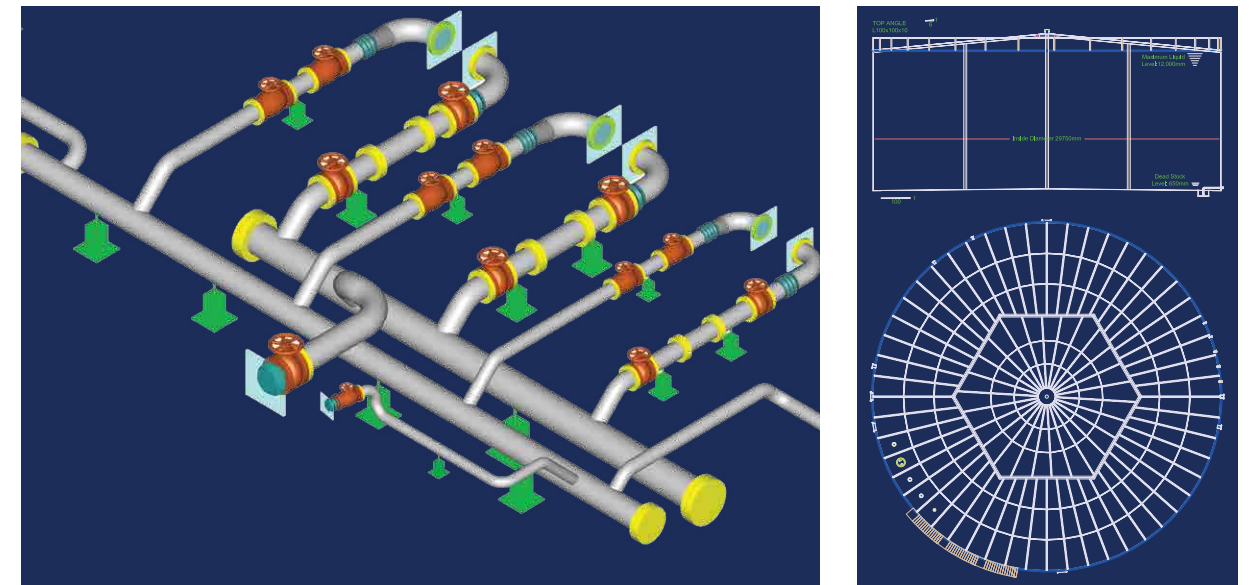
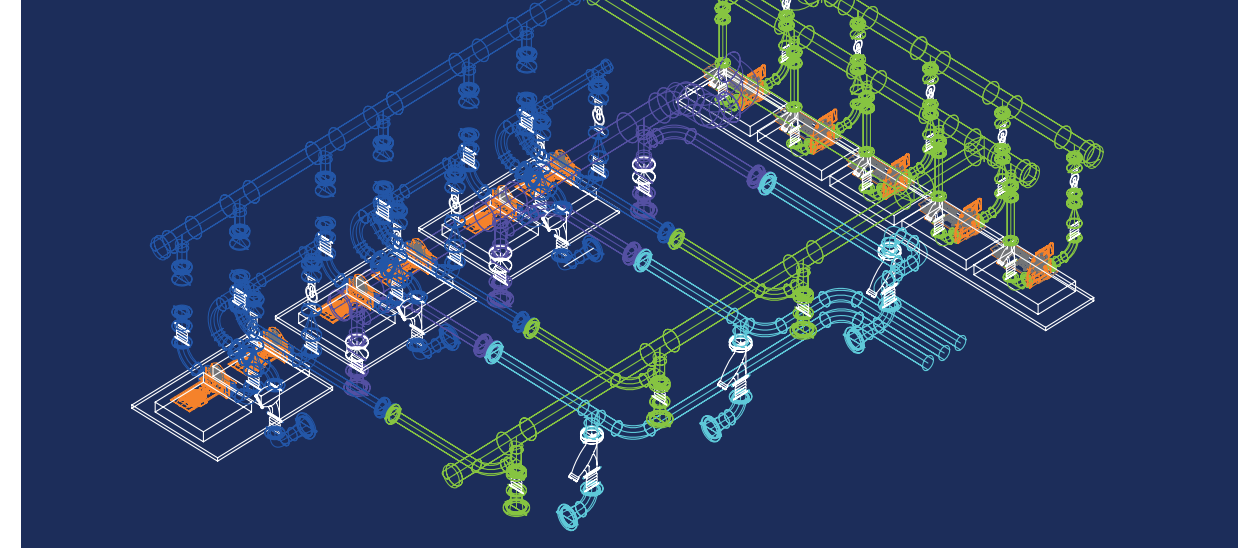
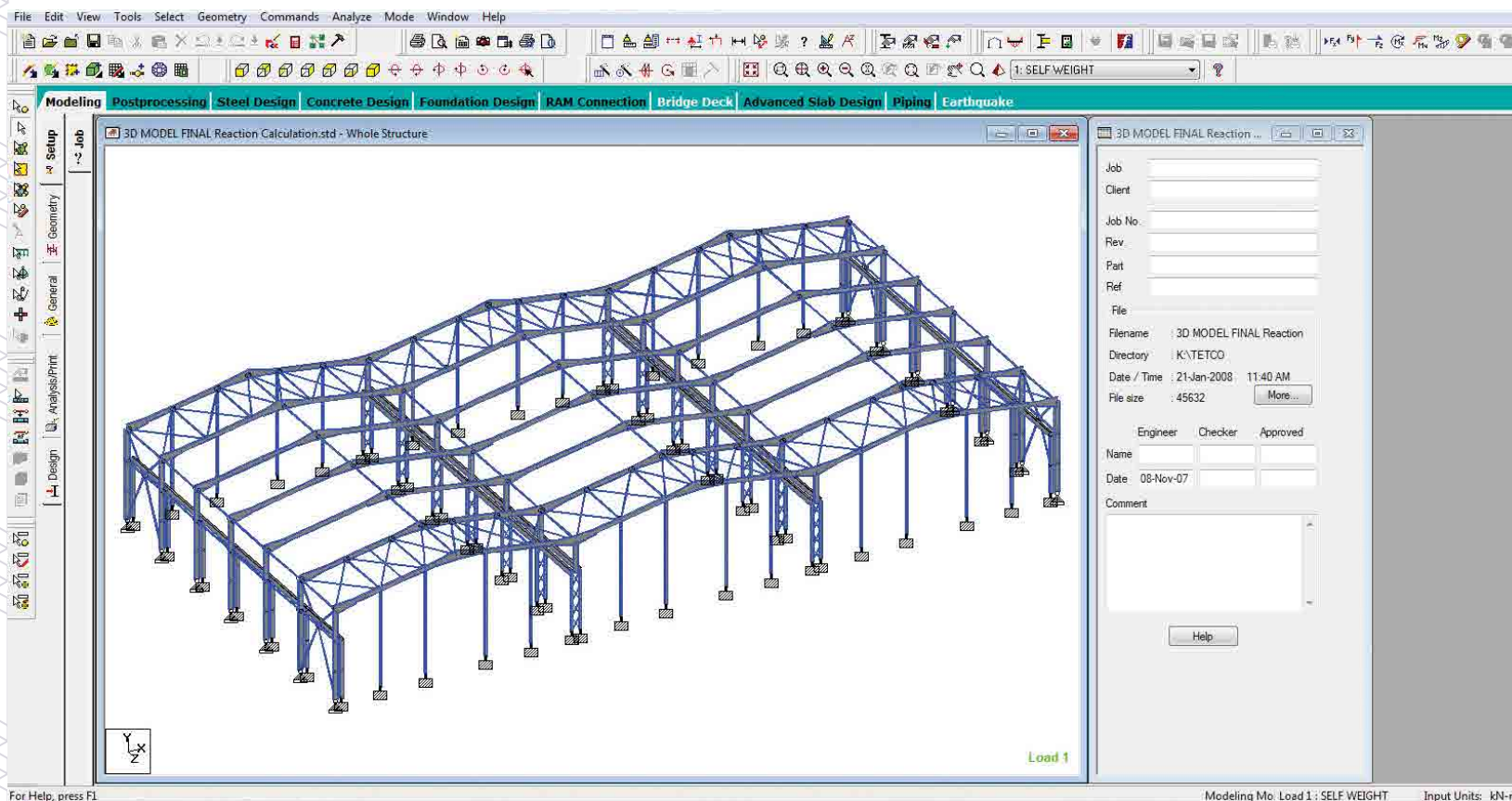
### Engineering & Design

Being the basis of the development of the project and proper selection of equipment and material, TETCO's engineering department lies at the heart of every project to ensure the quality of the project outcome and the safety of the solutions offered.

TETCO's engineering department offers reliable solution tailored to individual needs and requirements. However, our designs are always based on the relevant international standards and codes to produce cost effective solutions and accurate calculations that save operating and maintenance costs for our clients.

The engineering departments' tasks include feasibility studies, concept design, review of client's minimum technical requirements, design alternatives and new ideas to improve cost effectiveness of the design, and development of detailed design drawings and documents for construction teams to follow. Our designs adhere to the following methods and principles:

- Compliance with all relevant international standards, regulations, codes and norms (Such as API, ASME, ASTM, NFPA, AWS, BSI, EN, IEC etc...).
- Use of common industry practices and recognized/proven techniques, methods, equipment and material
- Sustainability, energy efficiency, social responsibility and environmental awareness.
- Safety, efficiency and cost effectiveness
- Integrated project delivery throughout the complete project life cycle



**Our multi-discipline departments cover all aspects of design/engineering works in a turnkey project:**

- Civil Design: including foundations, roadworks, soil investigations, topographical surveys and steel structures design using Finite Element Analysis programs
- Mechanical & Process Design: including Steel Storage Tanks design as per API 650/620, Pressure Vessels as per ASME Section VIII, Firefighting systems as per NFPA, Process Flow Diagrams, P&IDs, Plant layout and Plant philosophy, Piping layout and Stress Analysis, Equipment sizing and selection
- Electrical Design: including MV/LV Distribution Architectures, SLDs, plans and details, External & Internal Lighting, Small Power systems, Hazardous Area Classification, Equipment sizing and selection, Earthing & Lightning Protection Systems, Cathodic Protection Systems, Load calculations and motor starting studies
- Instrumentation & Control Design: including Instruments specifications and selection, fire detection & alarm systems, Control System architectures, Cause-effect matrices, ESD systems, Metering Systems, Tank Gauging & Inventory Management Systems and Generation of Loop diagrams and hookup drawings.

Our aim of self-dependent works is to offer our customers the optimal solutions with least cost impact and a single point responsibility without the risk of duplication or fear of badly coordinated design and construction



## Our Products

### Procurement

TETCO head office in Beirut is responsible for selecting suppliers, preparing of tender documents, sending out of inquiries, bids evaluation, submitting of technical material for approval, issuing of Purchase Orders, expediting, inspection, customs, clearance, inland transportation, warehousing and allocating to ensure material/equipment arrive at site as per project schedule.

TETCO allocates the required professional personnel to carry out any procurement activity in accordance with project / client requirements. These activities are carried out by a Procurement Manager responsible for coordinating all related activities having direct responsibility for the department's Project performance.

The Procurement Manager is assisted by a team of purchasing engineers; documents control personnel, quality engineers, expediting supervisor, vendor inspection supervisor, transportation supervisor, warehouse supervisor and all other necessary resources.





## Our Products

### Manufacturing | Fabrication

All of TETCO's manufacturing / fabrication is currently being carried out at **TETCO Heavy Industries** premises in the Bekaa, Lebanon. On some projects, fabrication is carried out on site using modern machinery and technologies.

All manufacturing / fabrication processes are done based on detailed engineering drawings received from the Engineering department. The process is controlled by a production manager, Fabrication foremen and supervisors. Our prefabrication works are carefully designed to minimize any required site modifications or fabrication works. All material will be delivery properly tagged and ready to install, thus minimizing work space required and idle time for the construction crews.



### PRODUCTION EQUIPMENT

- CNC Plasma Cutting Units
- Plates Rolling Cylinder (Up to 45mm)
- Plates Blasting Machine
- 3 Rolls plate rolling Cylinder (Up to 15mm)
- Automatic Welding Arms
- Flanging Machine
- Dishing Press
- CNC Plate Punching Table
- Profile Center
- Ironworker
- Profiles Rolling Machine
- Band Saw
- CNC Plasma cutting Machine
- CNC Hydraulic brake press
- Hydraulic Shearing Machine
- Radial Drills
- 3D CNC Plasma cutting machine
- Overhead cranes
- Trucks
- Forklift (5 Ton )
- Telescopic forklift (4 Tons 17m)
- Mobile & Overhead Cranes (25,30,50,75 Tons)



## Our Products

### *Construction | Project Management*

Depending on size and type of project, a Project Manager or a Construction Manager is appointed to lead TETCO's construction team on site. This Manager is directed by TETCO's Projects Coordinator based in Beirut.

The Project Team includes field engineers covering each aspect of the project and required supervisors and personnel to run the project efficiently. The Project Site team coordinates closely with our head offices and reports project progress and any issues for required solutions as well as financial and commercial issues.





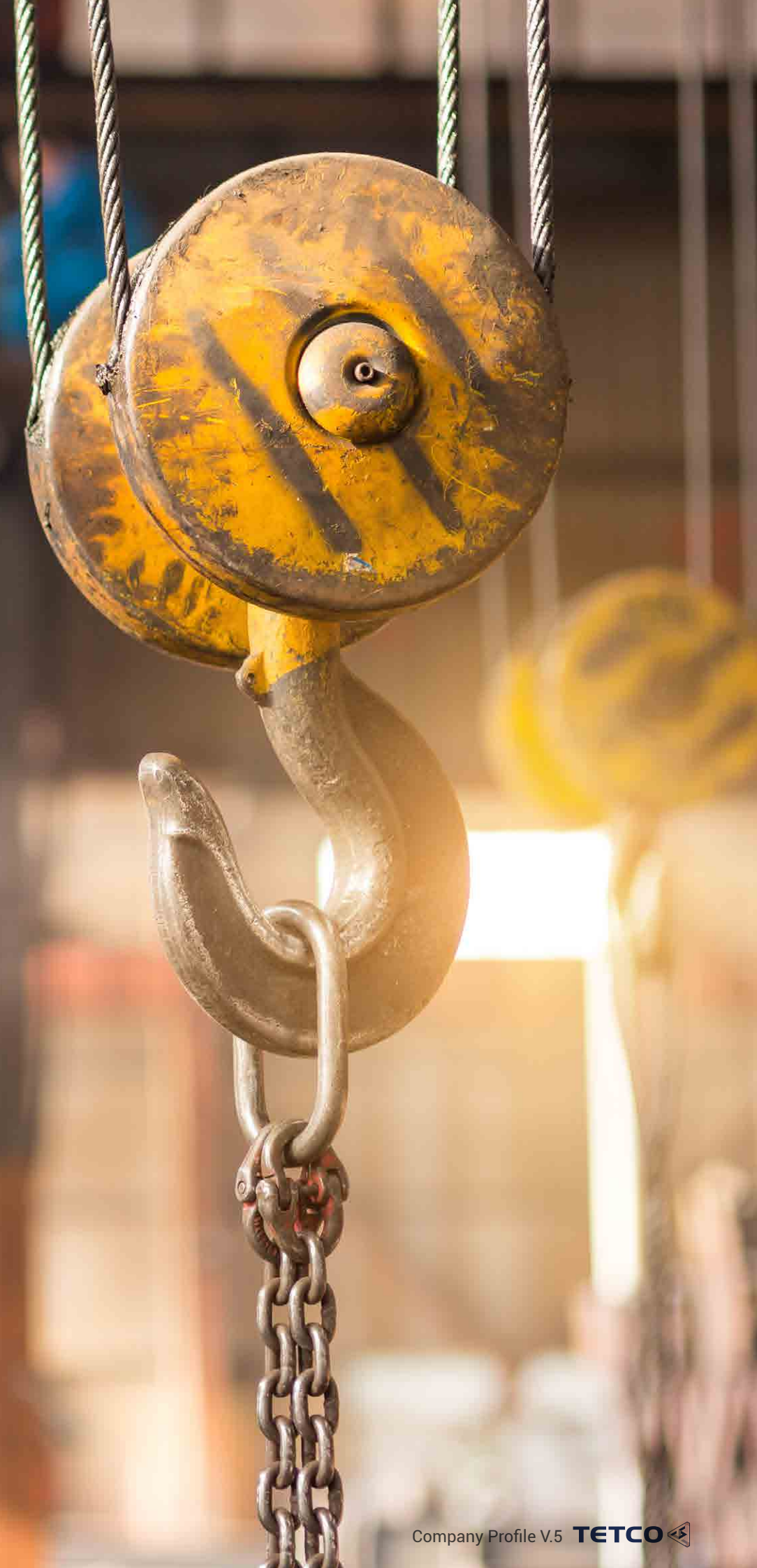
## Our Products

### *Inspection | Testing*

Manufacturing as well as project sites are controlled by an inspection and testing process. This process identifies the critical hold points where to apply these tests.

Our Quality Assurance personnel are trained and continuously exposed to the latest testing methods and technologies, enabling them to carry out the testing procedures.

The whole process ensures that products as well as whole projects are completed and delivered to clients in time and safe and reliable for operation or production.





## Project Profile

- LARNACA AIRPORT CENTRAL JET FUEL STORAGE LACJFS
- AMMAN STRATEGIC TERMINAL FOR PETROLEUM PRODUCTS ASTPP
- MECHANICAL & ELECTRICAL WORKS AT ZOUK & JIYEH NEW RECIPROCATING ENGINES POWER STATIONS
- REPAIR OF TANK B & E AT MARINE TERMINAL
- RABAK OLD DEPOT MAINTENANCE PROJECT RODMP
- PETROLINA VASSILIKO NEW TERMINAL PVNT
- LPG DEPOT
- GADARIF STRATEGIC STORAGE DEPOT PROJECT GSDP
- LPG SPHERES & RELATED FACILITIES PHASE II PROJECT LPGII
- NEMESIS ASPHALT STORAGE TERMINAL
- ASPHALT MIXING PLANT KHALID PORT SHARJAH
- REFINERY DISMANTLING & CONVERSION TO TERMINAL PROJECT

### Types of Projects:

**C** Construction only

**PC** Procurement & Construction

**EPC** Engineering Procurement & Construction

**MAINTENANCE** Maintenance & Refurbishing

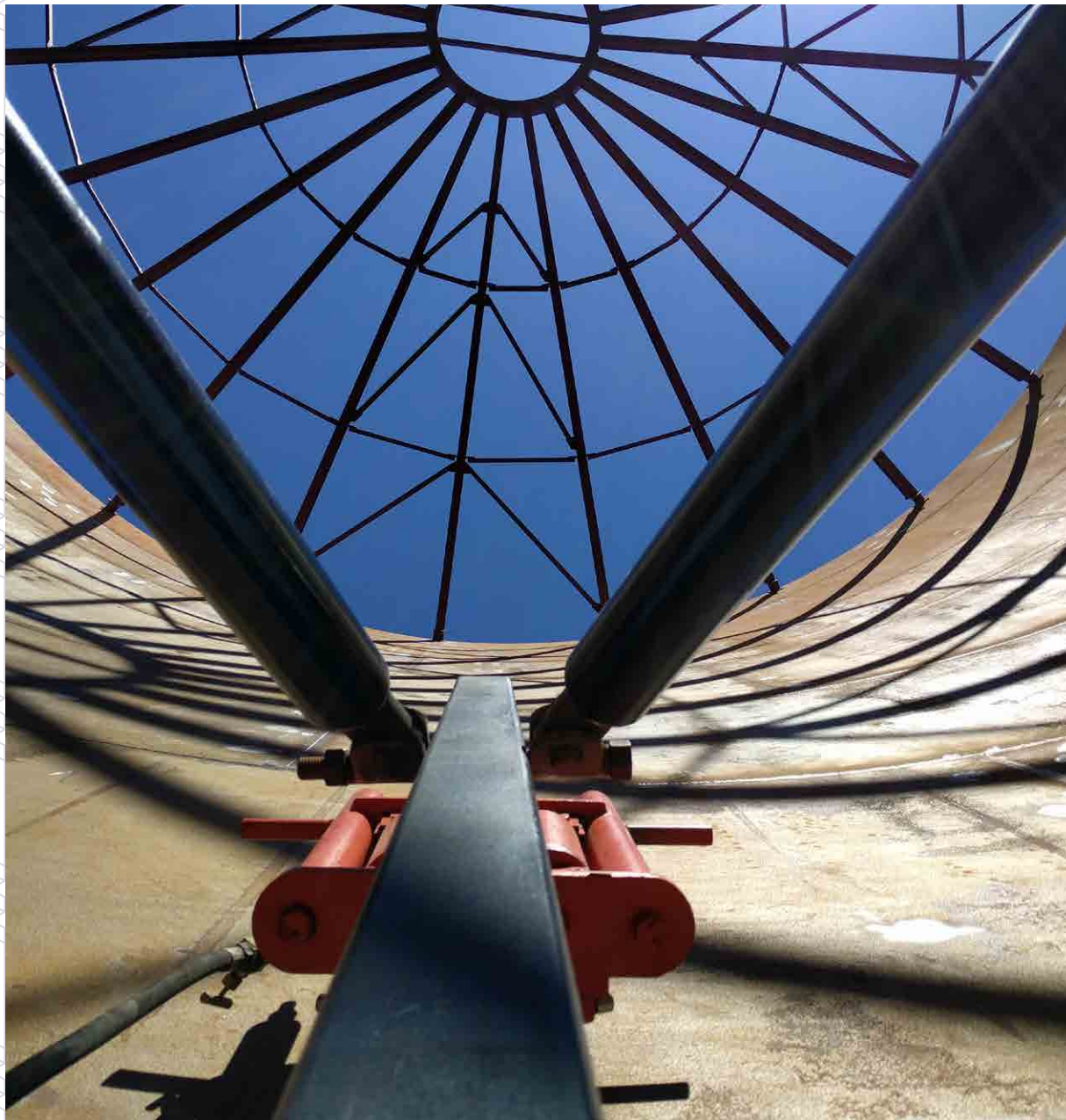


## Project Profile

### LARNACA AIRPORT CENTRAL JET FUEL STORAGE LACJFS

- 🕒 Year 2016
- 📍 Location LARNACA, CYPRUS
- 👤 Client LARNACA AVIATION FUELING SYSTEM LTD (LAFS)
- ☰ Type of Project PC

Supply and Erection of Fuel-Water Tanks (3 Jet A1 tanks 2300m<sup>3</sup> each + 1 Fire Water tank 1400m<sup>3</sup>) Process Piping and Associated Works.





## Project Profile

### AMMAN STRATEGIC TERMINAL FOR PETROLEUM PRODUCTS ASTPP

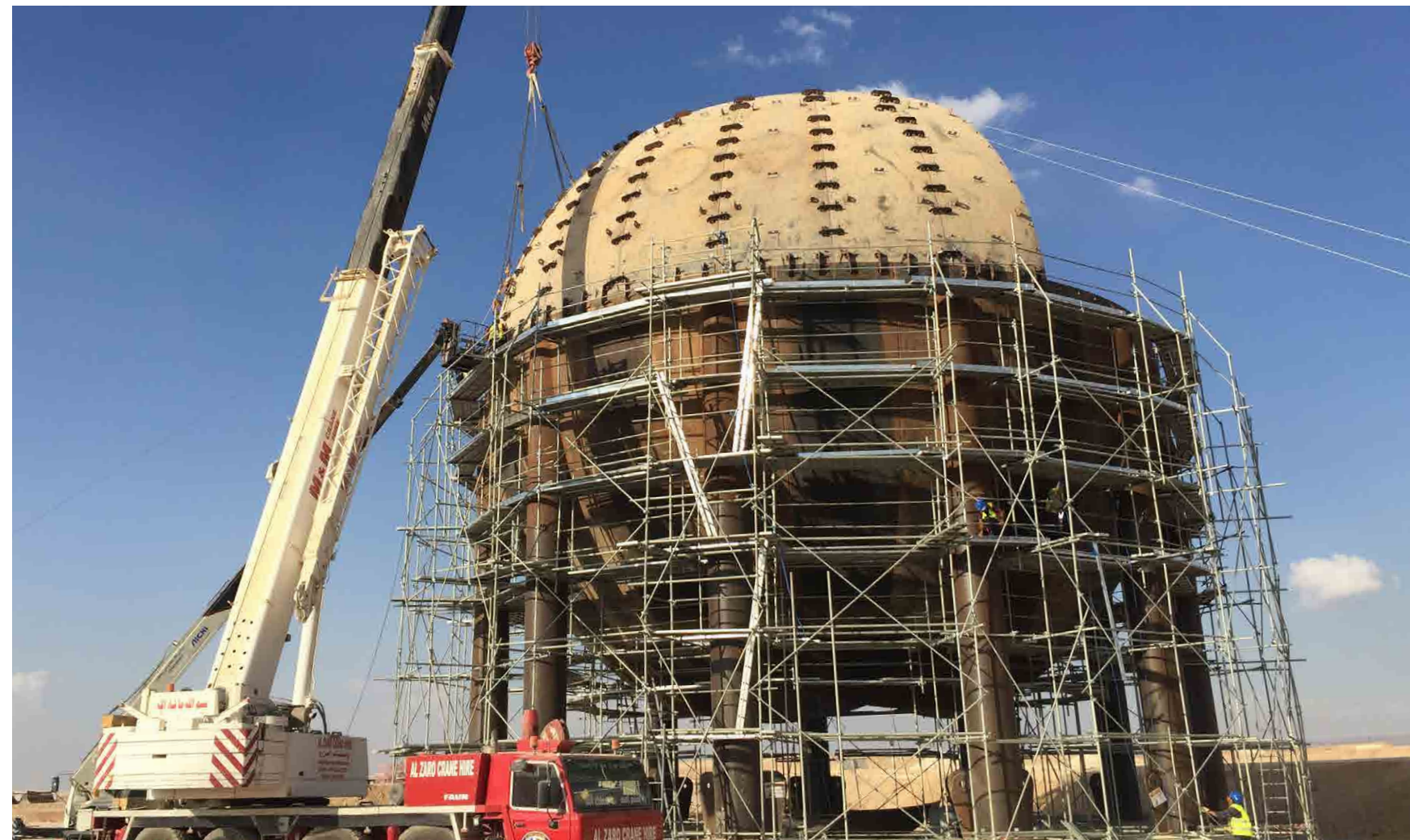
🕒 Year 2016

📍 Location AMMAN, JORDAN

👤 Client OLH MID JOINT VENTURE

☰ Type of Project C (Subcontract)

Construction of 5 Nos. spherical LPG storage Vessels 3760m<sup>3</sup> each, including insulation, PWHT, pressure testing



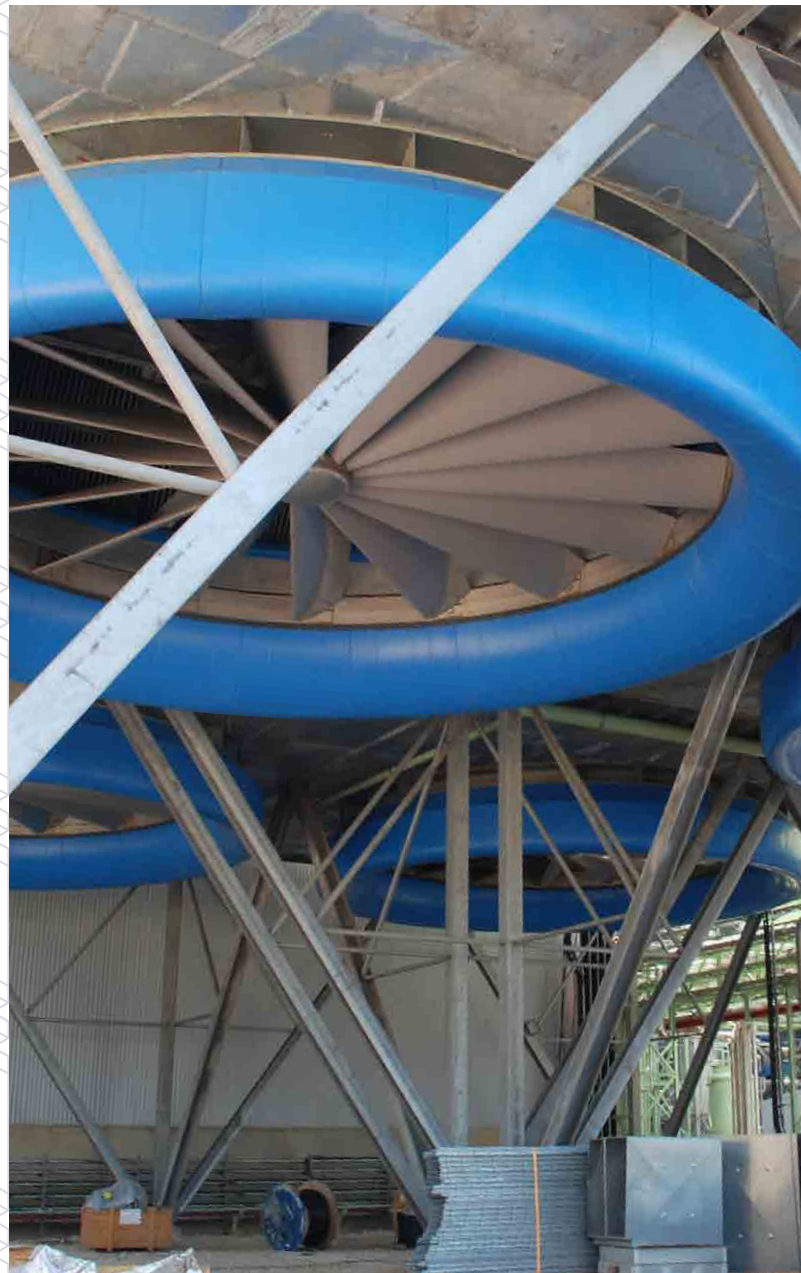


## Project Profile

### MECHANICAL & ELECTRICAL WORKS AT ZOUK & JIYEH NEW RECIPROCATING ENGINES POWER STATIONS

- 🕒 Year 2016
- 📍 Location ZOUK & JIYEH, LEBANON
- 👤 Client BURNMEISTER & WAIN SCANDINAVIAN CONTRACTORS A/S (BWSC)
- ☰ Type of Project C (Subcontract)

Electromechanical Works at Zouk & Jiyeh Power Plants (Piping & Equipment Installation) including erection of Air Cooled Condenser. Fabrication, supply and erection of service tank farm tanks.





## Project Profile

### REPAIR OF TANK B & E AT MARINE TERMINAL

🕒 Year 2016

📍 Location **PORT SUDAN, SUDAN**

👤 Client **PETRODAR OPERATING COMPANY (PDO)**

☰ Type of Project **EPC**

Repair & refurbishment of 2 Crude Oil Tank (82m diameter) including repair and upgrade of Cathodic Protection System.





## Project Profile

### RABAK OLD DEPOT MAINTENANCE PROJECT RODMP

- 🕒 Year 2015
- 📍 Location **RABAK, SUDAN**
- 👤 Client **MINISTRY OF PETROLEUM, SUDANESE PETROLEUM CORPORATION (MOP, SPC)**
- ☰ Type of Project **EPC / MAINTENANCE**

Full refurbishment of Rabbak Existing storage terminal with revamping of firefighting system.





## Project Profile

### PETROLINA VASSILIKO NEW TERMINAL PVNT

🕒 Year 2013 - 2015

📍 Location VASSILIKOS, CYPRUS

👤 Client PETROLINA (HOLDINGS) LIMITED (PHL)

☰ Type of Project EPC / MAINTENANCE

**2013** Construction of 8 Vertical Tanks (7x7500m<sup>3</sup> & 1x2500m<sup>3</sup>)

**2014** Maintenance of storage tanks 5 & 6 re-bottoming, replacement of 1<sup>st</sup> shell, & replacement of Roof.

**2015** Construction of 6 Nos Petroleum transfer Pipelines 1.5 Km from Vassilikos Port to New and Existing Terminals. (3x14", 1x10", 2x8") including Booster pumping station and electrical and instrumentation works.





## Project Profile

### LPG DEPOT

🕒 Year 2014

📍 Location DORA, LEBANON

👤 Client UNIGAZ

☰ Type of Project C

Construction testing and purging of two Mounted LPG pressure Vessels (2000m<sup>3</sup> each).





## Project Profile

### GADARIF STRATEGIC STORAGE DEPOT PROJECT GSDP

🕒 Year 2013

📍 Location AL GADAREF, SUDAN

👤 Client MINISTRY OF PETROLEUM, SUDANESE PETROLEUM CORPORATION (MOP, SPC)

☰ Type of Project EPC

Gasoil/Gasoline/LPG Terminal with all roads, civil, mechanical, electrical, instrumentation & control works.





## Project Profile

### LPG SPHERES & RELATED FACILITIES PHASE II PROJECT LPGII

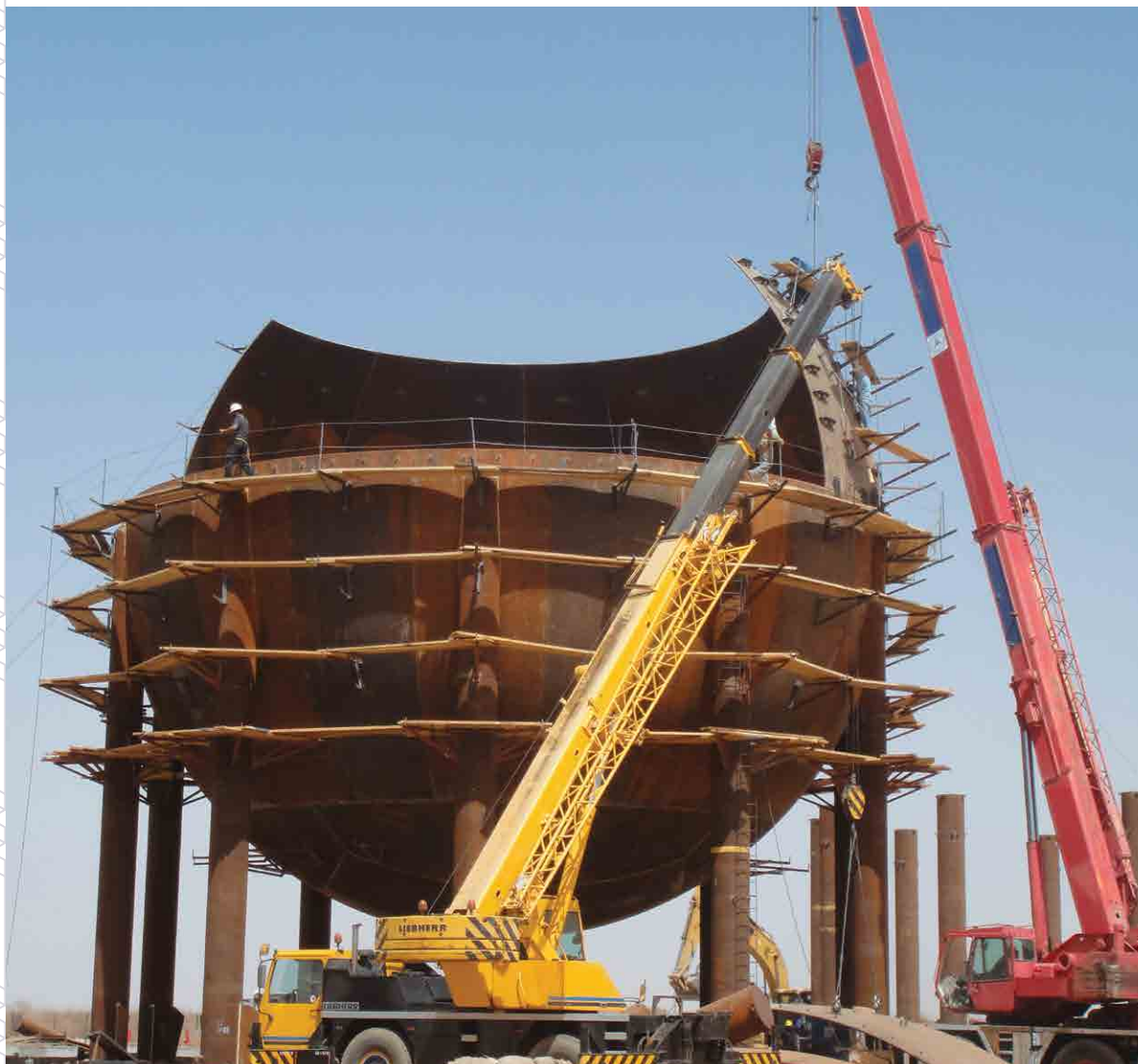
🕒 Year 2012

📍 Location AL GAILI, SUDAN

👤 Client MINISTRY OF PETROLEUM, SUDANESE PETROLEUM CORPORATION (MOP, SPC)

☰ Type of Project EPC

Engineering, procurement, fabrication, construction and commissioning of 7 LPG spheres (3000m<sup>3</sup> each) with the necessary facility for the loading, unloading metering and fire fighting systems. Including all civil, mechanical, electrical, instrumentation & control works.





## Project Profile

### NEMESIS ASPHALT STORAGE TERMINAL

🕒 Year 2009

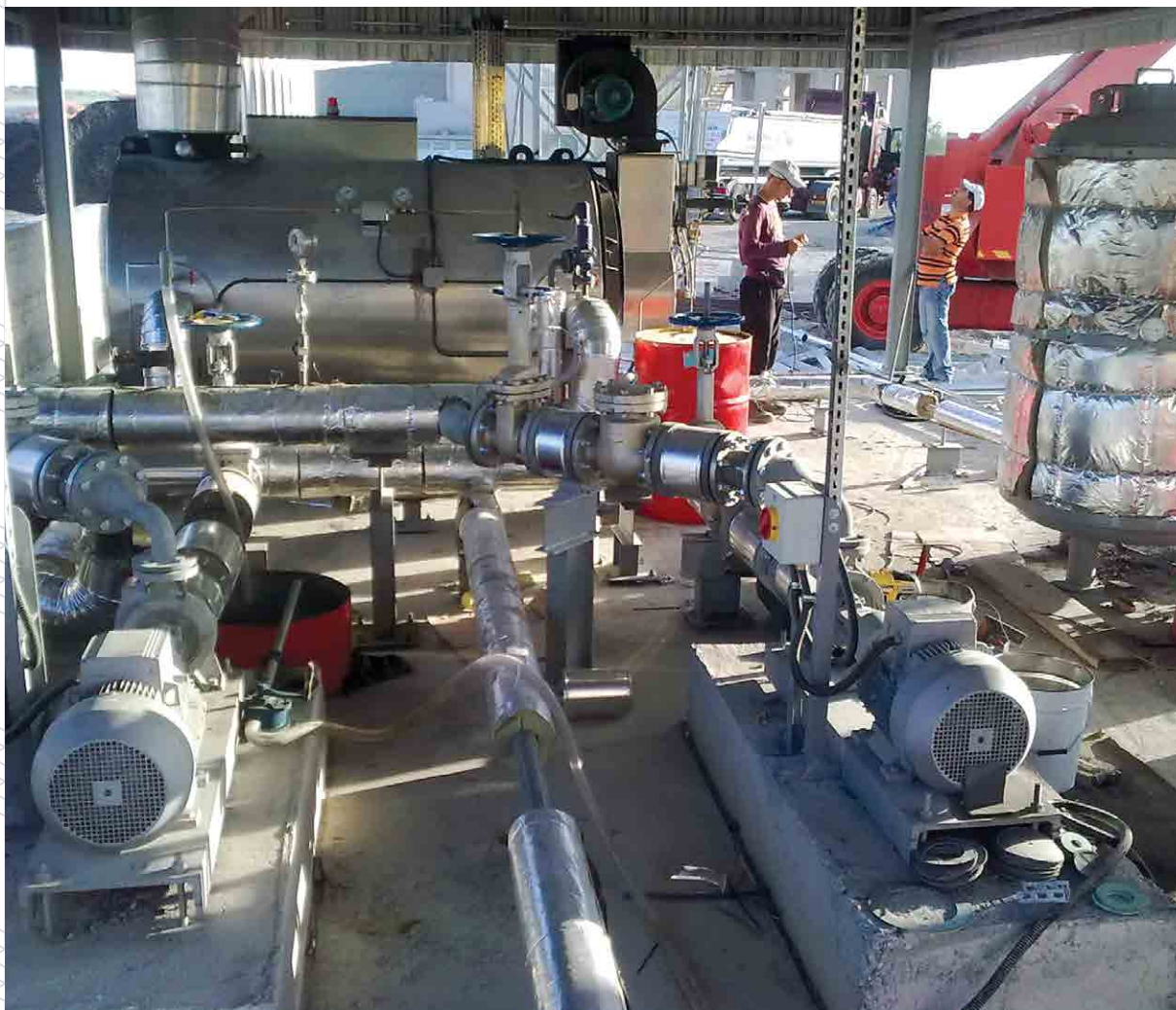
📍 Location NICOSIA, CYPRUS

👤 Client NEMESIS ASPHALT COMPANY

☰ Type of Project EPC

Design, Engineering, procurement, Construction Commissioning of Asphalt Storage Facility

Engineering, procurement, fabrication, construction and commissioning of an asphalt storage terminal and handling facility including civil, electrical, automation and instrumentation works.





## Project Profile

### ASPHALT MIXING PLANT KHALID PORT SHARJAH

🕒 Year 2008

📍 Location SHARJAH, UAE

👤 Client EMIRATES LUBE OIL COMPANY (ELCO)

☰ Type of Project EPC

Design, Engineering, procurement, Construction Commissioning of Asphalt Storage Facility 3 Bitumen and 6 Base-oil tanks of 6000m<sup>3</sup> with loading unloading facilities, thermal oil boilers, mixers etc.





## Project Profile

### REFINERY DISMANTLING & CONVERSION TO TERMINAL PROJECT

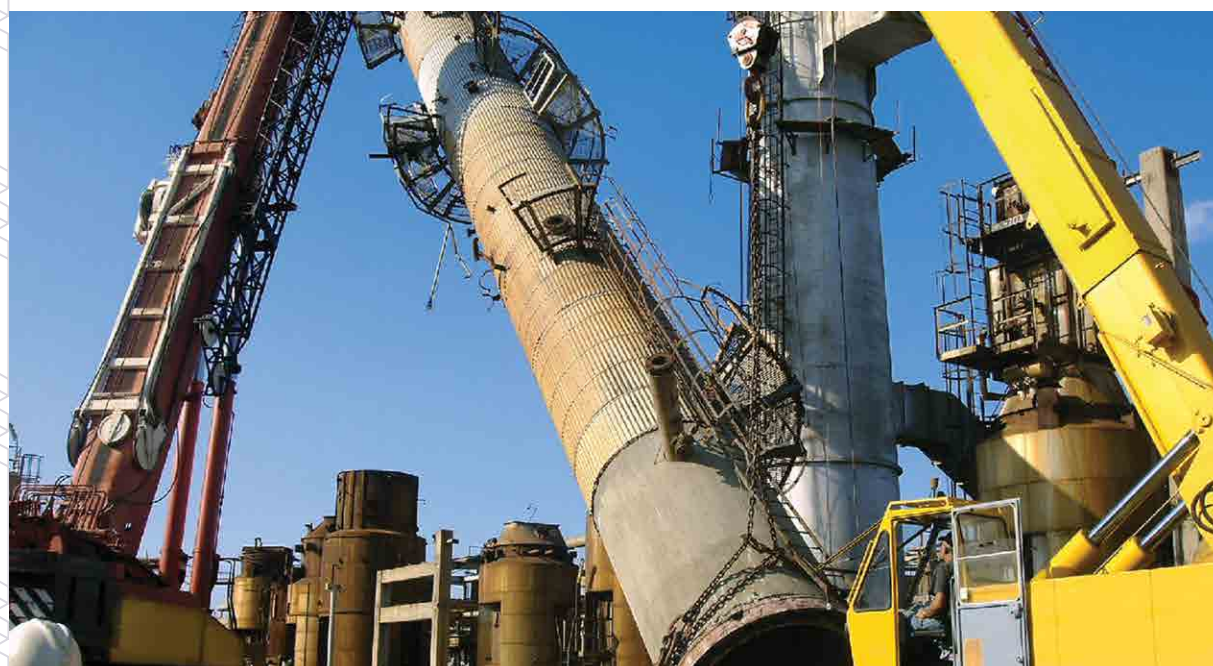
🕒 Year 2005 - 2007

📍 Location LARNACA, CYPRUS

👤 Client CYPRUS PETROLEUM REFINERY LIMITED (CPRL)

☰ Type of Project EPC

Conversion of existing refinery to storage terminal, including design, fabrication, construction & testing of bitumin, HGO, JETA1, MOGAS & HFO tanks with total capacity of 163,000m<sup>3</sup>. Purging, Cleaning, Dismantling & Preservation & shipping of Refinery Equipment including tagging & as built documentation.





Other Projects



Gas Spheres | KSA



Cyprus Petroleum Storage Terminal | Larnaca



Yanbu PTE Plant CCC | KSA



Rabegh Cement Plant | KSA



Prince Walid Bin Talal Private Complex | KSA



Al Gaseem Power Plant | KSA



Al Gailli Shell Terminal | Sudan



Storage Terminal | Aden



Marine Works | Aden



Al Gaseem Power Plant | KSA



## List of Other Notable Projects

### LIST OF NOTABLE PROJECTS (A-Steel structures and similar)

**1 Relocation of Cyprus Petroleum Refinery (Larnaca - Cyprus)**

Project period: 2006-2009  
Client: Consolidated Refinery Group  
Description: Engineering, dismantling, packing, shipping, refurbishing and reconstruction works.

**2 MARIB power plant (Marib - Yemen)**

Project period: 2007-2008  
Client: Siemens - BEMCO  
Description: Erection of three power houses with overhead cranes for the 300 MW gas turbine power plant.

**3 AIMT lube oil blending plant (Aden - Yemen)**

Project period: 1997-1998  
Client: Aden International Marine Terminal  
Description: Supply, fabrication and erection of structural steel building and installation of equipment.

**4 Tabuk cement plant (KSA)**

Project period: 1996-1997  
Client: Kawasaki - Mitsubishi  
Description: Supply, fabrication and erection of 2000 tons of structural steel for miscellaneous buildings.

**5 Yanbu’ cement plant (KSA)**

Project period: 1995-1996  
Client: KHD  
Description: Supply, fabrication and erection of 1600 tons of structural steel for pre-heating tower (120m height) and 8 steel tanks.

**6 PTA at Yanbu’ (KSA)**

Project period: 1996-1997  
Client: C.C.C.  
Description: Supply, fabrication and erection of 2600 tons of structures for silo supports and other processes.

### LIST OF NOTABLE PROJECTS (B-Power Plants)

**1 17 Power Plants Project in Sudan**

Project period: 2006-2009  
Client: Development Fund for South Sudan and Extended War Areas  
Description: Design, Engineering, Procurement, Transportation, Installation and Construction of 17 power plants in different areas.

**2 MARIB power plant (Marib - Yemen)**

Project period: 2007-2008  
Client: Siemens - BEMCO  
Description: Erection of three power houses with overhead cranes for the 300 MW gas turbine power plant.

**3 Giad Industrial Area Power Plant (65 MW)**

Project period 2004-2007  
Client: Giad  
Description: Steel Structures, Ducts, Piping, Storage Tanks and Mechanical Installations.

**4 Port Sudan Power Plant (28 MW)**

Project period 2004-2007  
Client: Rolls Royce - Al Jaber  
Description: Steel Structures, Ducts, Piping, Storage Tanks and Mechanical Installations.



## Notable Clients





## Notable Clients





## Contact

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