

NARAGARA ENGINEERS AND CONTRACTORS



COMPANY PROFILE

NEC is located in Livorno, 100 km from Firenze and 15 km from Pisa international airport.

Founded in 1997, NEC personnel experiences in Oil & Gas market dates back to 1976 since NEC is the result staff experience grown in Zama srl since 1976.

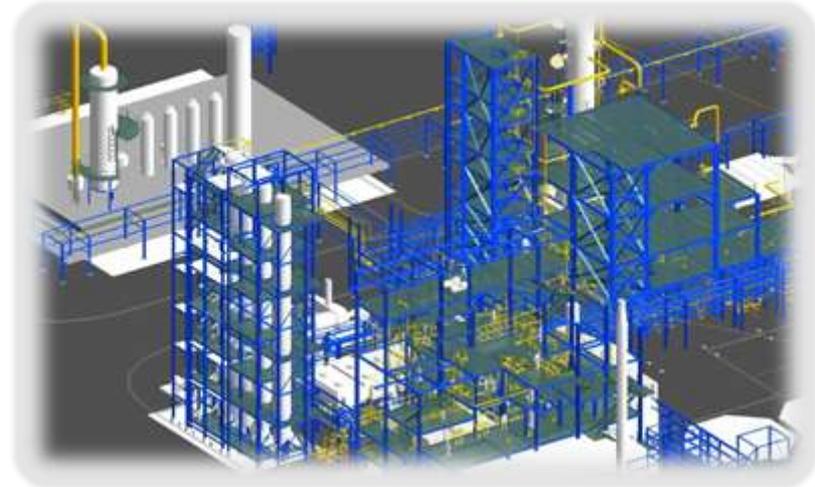
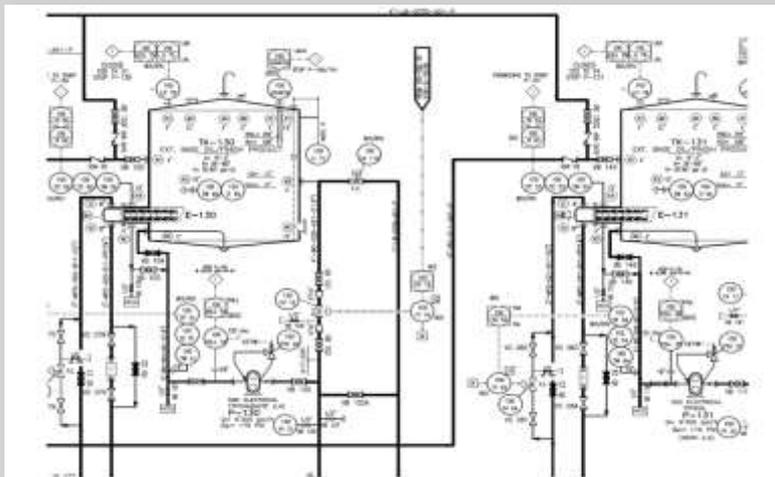
Company's asset consists mainly in its technicians professionalisms and in the know how accrued through years of activity and collaboration with worldwide main Oil Companies.



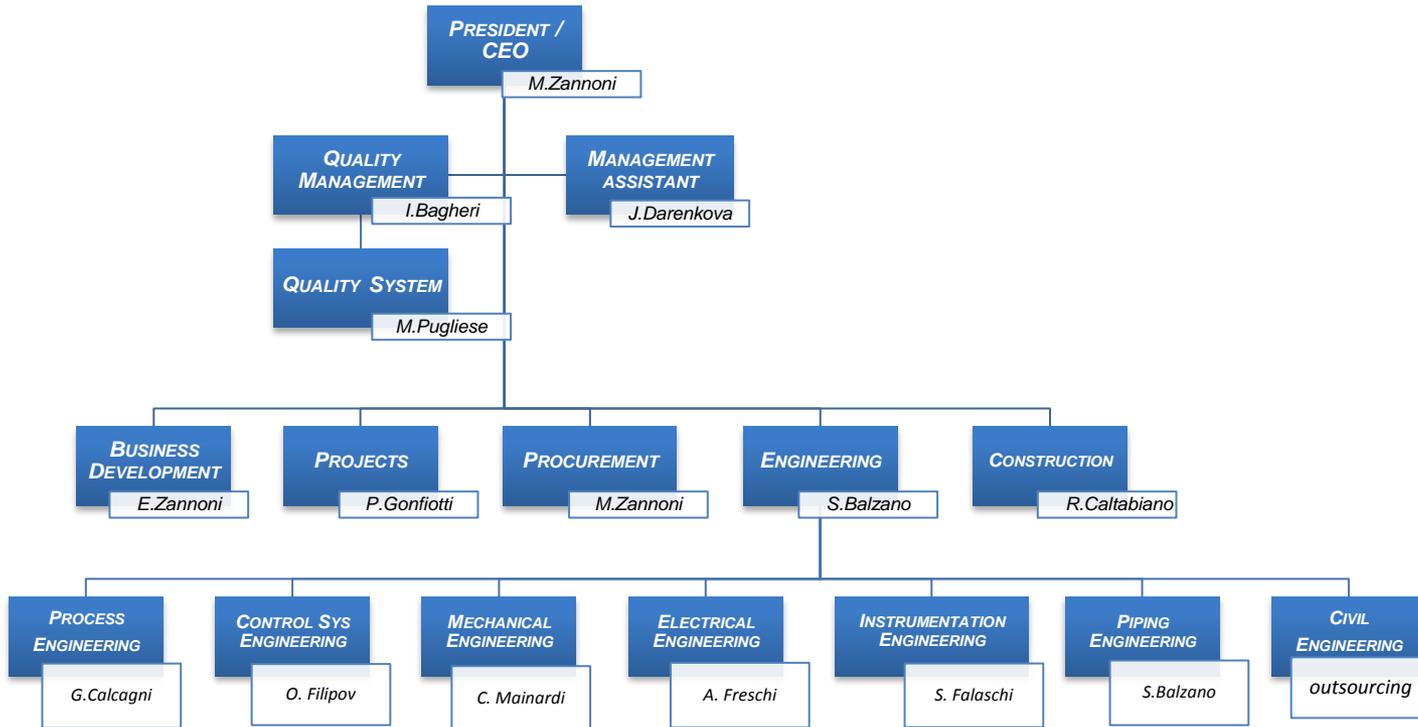
The *human resources* employed, the *advanced technologies* and the *quality of the products supplied* have been appreciated by the most important operators of the field and can be found in several and important plants of the world.

The mission of NEC is to satisfy its customers by offering turnkey plants through a full range of services from engineering, procurement, construction supervision, operators training, commissioning and start-up.

Engineering capabilities range from process and basic engineering through all the different detail engineering branches. The project management approach is the standard working methodology for every single NEC activity.



NEC realizes “Turn-Key” plants, handling different projects from the design phase till the plant’s erection with its pre-commissioning, commissioning , personnel training, start-up and test run.



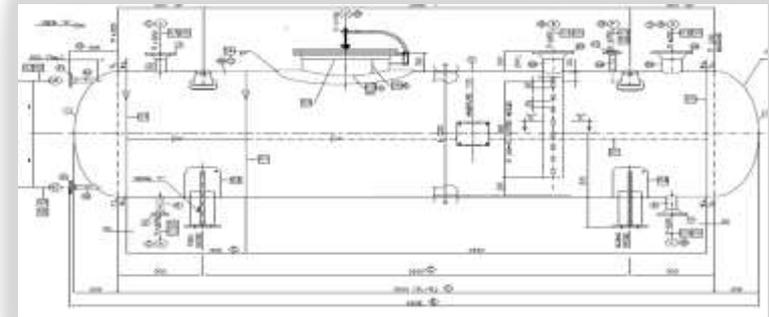
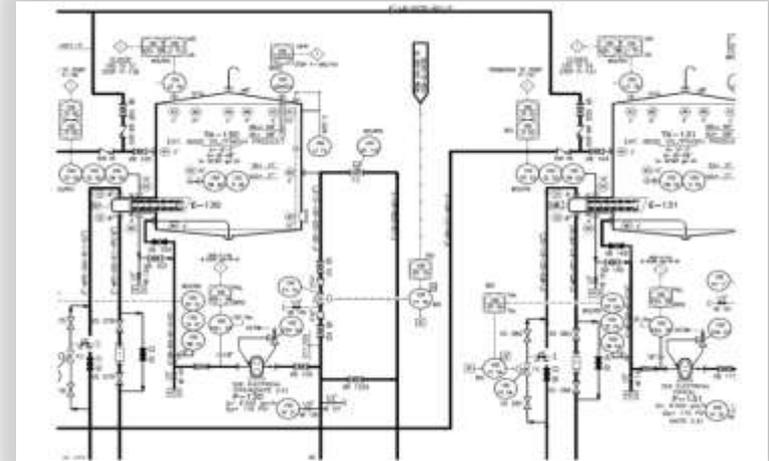
NEC has the organization to handle much different size projects, either directly or through the creation of Joint Ventures to grant the best project staffing and execution.

Our project management department has, basically, a matrix organization form where the Project Manager, who is responsible for the whole project, is the one to choose among the various options and alternatives in order to guarantee the best project performance.

NEC, even though proposing itself as «Main Contractor», can also supply single services such as:

- *FEASIBILITY STUDY*
- *PROCESS ENGINEERING*
- *BASIC ENGINEERING*
- *FRONT END ENGINEERING*
- *DETAIL ENGINEERING*
- *ENGINEERING, PROCUREMENT, CONSTRUCTION MANAGEMENT*
- *SUPERVISION TO PROCUREMENT AND SUPPLIERS FOLLOW-UP*
- *SUPERVISION TO CONSTRUCTION, COMMISSIONING AND START-UP*
- *PROCESS ANALYSIS AND P&ID , PFD COMPLETION/ISSUE*

- MECHANICAL ENGINEERING
- ELECTRICAL – INSTRUMENTATION ENGINEERING
- CIVIL & STRUCTURAL ENGINEERING
- 3D PIPING ENGINEERING
- EQUIPMENT DIMENSIONING AND DATA SHEETS ISSUE
- GENERAL LAYOUT STUDIES
- DETAIL LAYOUT WITH PIPING AND CABLE WAYS, FOUNDATIONS, EMERGENCY SYSTEMS
- PIPING STRESS ANALYSIS
- SUPPORTS DESIGN
- MATERIAL TAKE OFFS
- PIPING AND ELECTRICAL HOOK-UP DEVELOPMENT
- AS BUILT DETAIL DRAWINGS

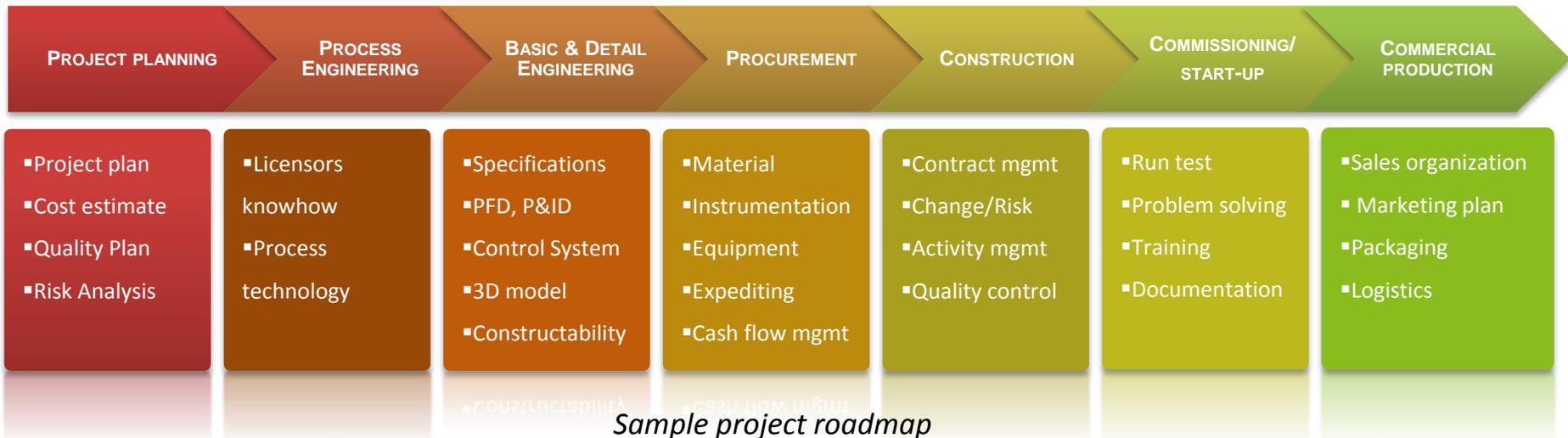


NEC has the organization and the experience to take on total responsibility for several projects, for which its team members have accrued a consolidated experience, such as:

- Process units (topping-vacuum)
- Refineries offsite
- Lube oils and greases blending plants
- Used Oil re-refining plants
- Crude oils desalter
- Fuel oils treatment plants
- Sulphur recovery plants
- Jet Fuel sweetening plant
- H₂S removal plant
- Mercaptans oxidation unit
- Gas reducing and metering stations
- Gas compression packages
- Oil/gas separation units
- Gas softening stations
- Natural gas filtration and separation units
- LPG handling and storage
- Oil and gas terminals
- Loading stations
- Bitumens handling and storage
- Modified Bitumens
- Oil service stations
- Oil and heavy metals polluted soils treatment plants
- Slop treatment plants
- Vapor recovery units
- Water treatment plants

NEC have a *stage project management system* with project review gates and deliverables that are the base for an effective planning, execution and control of a project.

The focus is to control project quality, time and cost in the most proficient way for the final client.



The business policy of NEC is characterized by the quality and reliability of the products/services, the constant care to satisfy the customer needs and the continuous improvement.

*NEC works according to a Business Quality System compliant with the **UNI EN ISO 9001** standard and obtained the Certificate aware of the fact that it represents only a part – although significant – of its own Quality policy.*



NEC bases its development flow on the strongest and most efficient softwares on the market:

3d piping design: PDMS, CADWorx, ESAPro 3D



Structural analysis: SAP 2000



Storage tanks & Vessels design: Tank, PV Elite



Piping Stress: Caesar II



NEC

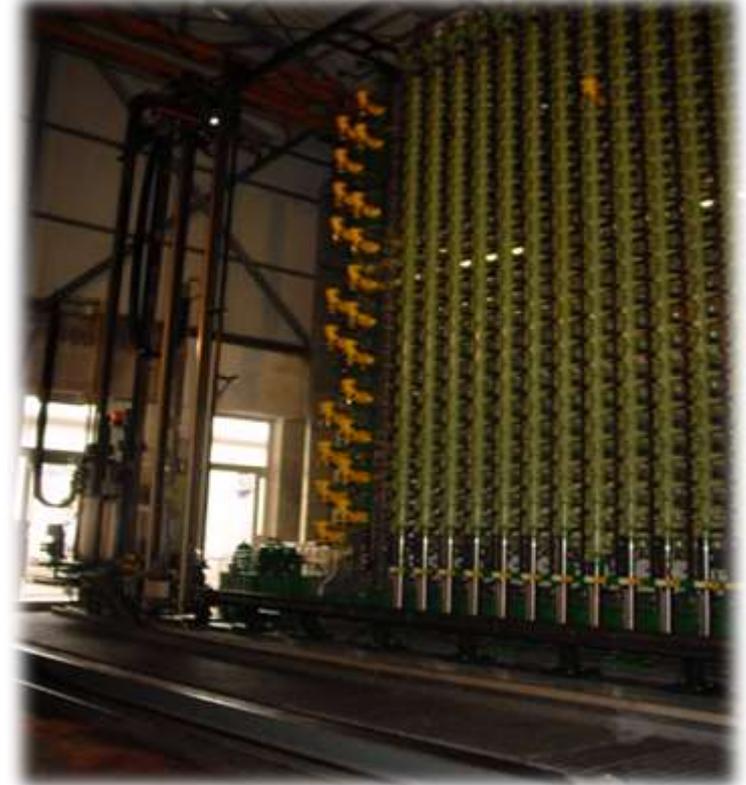
MAIN PROJECTS

Lubricants Blending Plant

Client: Eni S.p.a

Place: Livorno - Italy

Capacity: 250.000 tons/year



Other blending realizations:

- Nexlube – Tampa - USA
- AGIP Petroli – Cortemaggiore – Italy
- AGIP Petroli – Venice – Italy
- Termcotank – Geneva – Switzerland
- Esso – Vado Ligure – Italy
- PT Agip Lubrindo Pratama - Indonesia

Used Oil Re-Refining Plant

Client: Viscolube

Place: Lodi, Milan - Italy

Capacity: 80.000 tons/year



Other Waste oil realizations:

- PT Agip Lubrindo Pratama – Indonesia
- Jedlizce Petroleum Ref. – Poland
- Nexlube Tampa LLC – Florida- U.S.A

Used Oil Re-Refining Plant

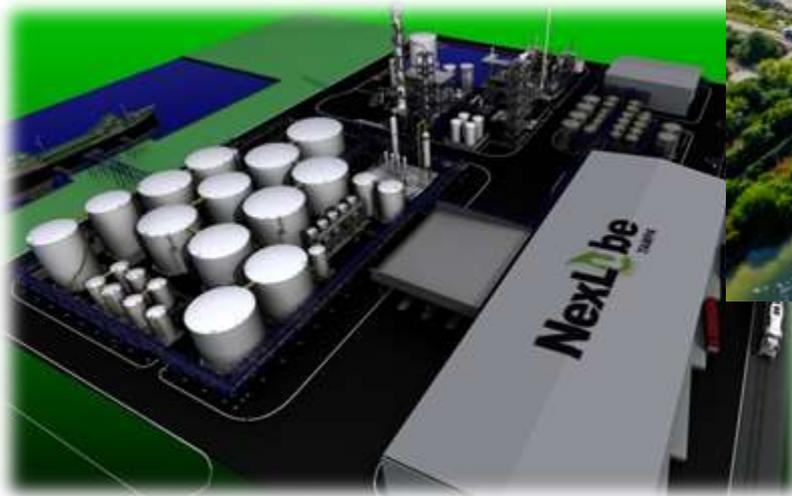
Client: Nexlube Tampa, USA

Capacity: 80.000 tons/year

Plant: PreFlash – Thermal DeAsphalting - Hydrofinishing unit & Lube Oil Blending plant

Scope: engineering, procurement and construction management services.

*Plant under construction to be
start-up in 2015*



H2S Removal Plant

Client: PDVSA-Cupet

Place: Cienfuegos, Cuba



Other similar realizations:

- Sulphur Recovery Unit –AGIP S.p.a.
Montealpi – Italy

Kerosene Sweetening Plant

Client: PDVSA-Cupet

Place: Cienfuegos, Cuba



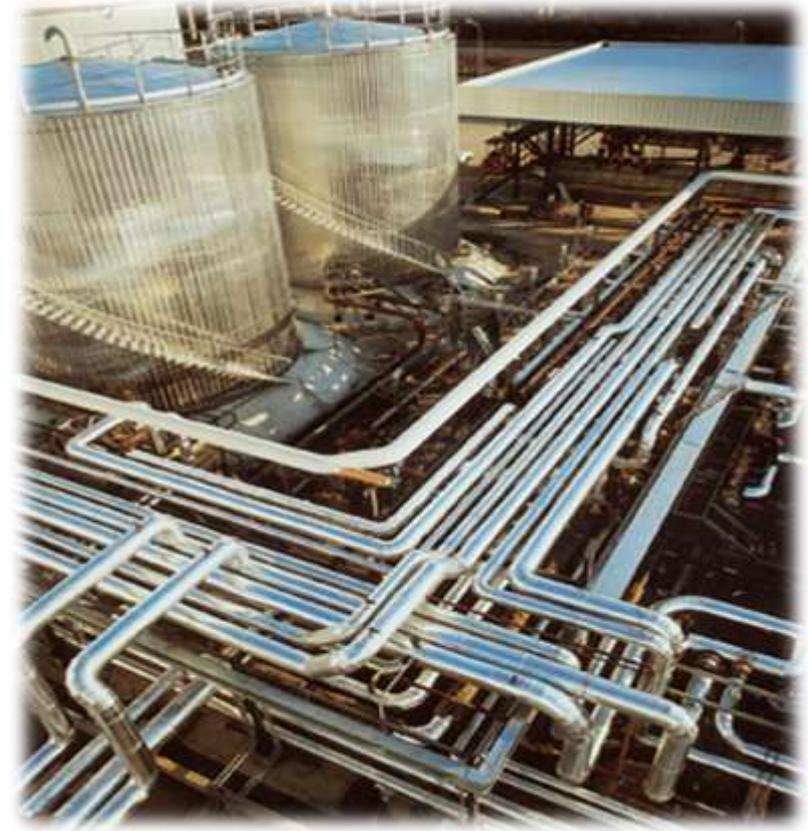
Other similar realizations:

- Sweetening Gas (MEA) Unit –AGIP S.p.a. Spilamberto - Italy

Fuel Storage Depot

Client: Toscopetrol

Place: Livorno - Italy



Other Realizations for Depots:

- Arcola Petrolifera S.p.a. – La Spezia – Italy
- Costieri D'Alesio S.p.a. – Livorno – Italy
- Depositi Costieri del Tirreno – Livorno - Italy

Desalter Unit on skid

Client: CAMERON

Place: ENPPI Ref. - Egypt



Other Realizations on Skid :

- AMOCO
- ELF
- MOBIL OIL
- ESSO
- IP
- AGIP PLAS

Final Countries:
Poland – Cina -
Ecuador – Iraq -
Algeria - Italy

Two stage desalter

Client: CAMERON

Place: PBG Ref. - Poland



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Produced Water Treatment Package (Cameron)

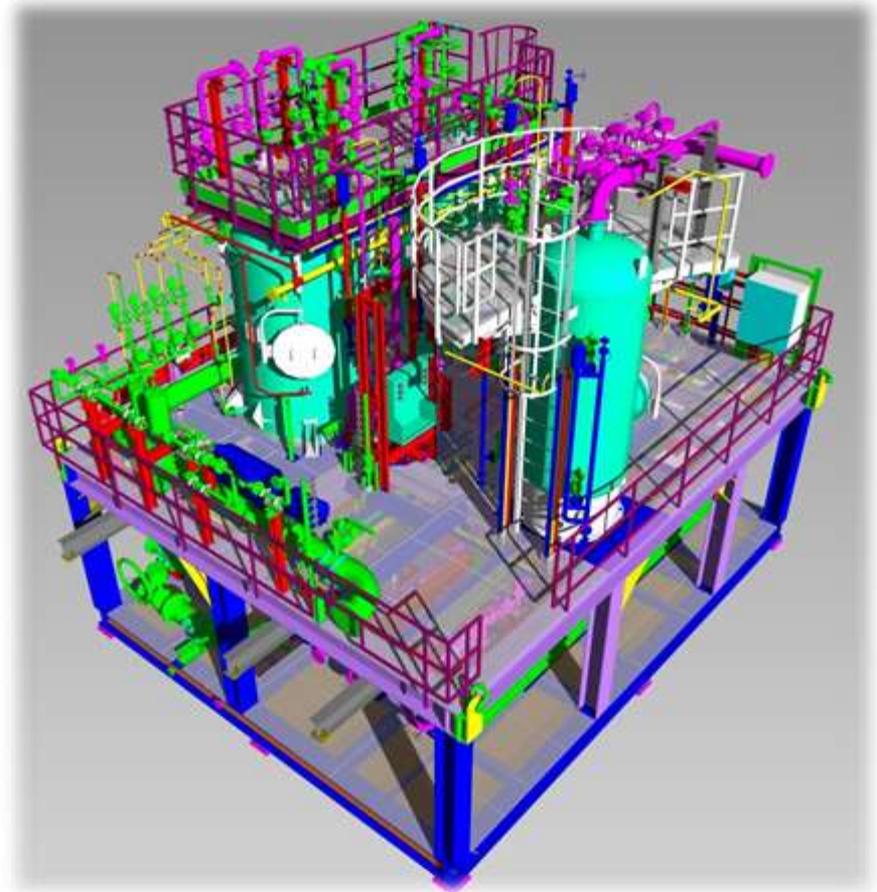
Final User: Det Norske

Project: Ivar Aasen Field development



DET NORSKE

- *2 Compact flotation units (Duplex)*
- *1 Degasser (Duplex)*
- *Piping & Electrical-Instrumentation Works*
- *Skid structure and assembly*



Electrostatic Coalescers (Cameron)

Final User: Statoil

Project: Mariner Topside Platform



2 x Duplex vessels 10m Length x 4m ID



2 Skid Package Gas Compression Units

Client: NIS – Gazprom Neft

Project: Reciprocating CO2 Compressor System for Elemir



4 Compression Units

Client: NIS – Gazprom Neft

Project: n° 4 Compressors of natural gas for Martonos Zapad

- ✓ Vapours recovery unit
- ✓ Water treatment plants
- ✓ Mercaptans oxidation units
- ✓ Slop treatment plants



- ✓ Oil and gas terminals
- ✓ Truck Loading station
- ✓ Modified bitumens
- ✓ Bitumens handling/storage

NEC PARTNERSHIPS

Fratelli Amaducci has been cooperating with NEC on several projects over the years, realizing in partnership many Plants, Tanks, Depots Sections, etc.

Main Capabilities:

- Fixed and floating roof storage tanks
- Pressure vessels/columns
- Skids/packages
- Truck loading stations
- Pipeline



Bitiessa is a construction company operating worldwide in a wide range of fields from petrochemical, mechanical and carpentry construction to technological systems for industrial plants.

BTS main products are:

- Tanks, pressure vessels,
- Exchangers, Tube bundle
- Filters
- Water filtration skid
- Amine filtration skid
- Automatic package for oil filtration
- Biodiesel filters automatic plant



Based upon the experience and developed know-how cumulated over fifty years in the global field of pressure equipment, BREMBANA&ROLLE can provide any:

- HIGH PRESSURE HEAT EXCHANGER,
- WASTE HEAT BOILERS PACKAGES,
- UREA-AMMONIA HEAT EXCHANGERS
- SPECIAL CLOSURE HP HEAT EXCHANGERS (“BREECH LOCK” TYPE, ETC.)
- SPECIAL DESIGN HE (“HELIX” & “EMBAFFLE” TYPE)
- REACTOR,
- PRESSURE VESSEL/COLUMN,
- ROD BAFFLE HEAT EXCHANGER

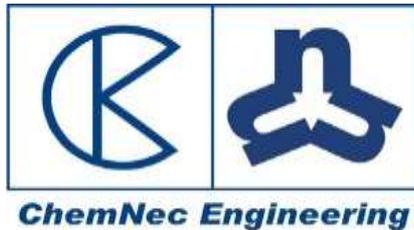


The experience and efficient equipment available in the use of a variety of steels, coupled with the unique ability to ship by barge, makes **GAS AND HEAT** a strategic competitor in the market place, particularly for the design and manufacture of heat exchangers, pressure vessel, boilers and piping made of the following materials:

- ✓ Carbon steel such as SA 516 Gr. 70
- ✓ High strength carbon steel such as SA 533 B Cl. 2 and SA 302 Gr. C
- ✓ Alloy steels such as SA 387 Gr. 11/22 Cl. 1 and 2
- ✓ Austenitic steels such as SA 240 TP 304-316-317-321
- ✓ Duplex and Super duplex Steel
- ✓ High Ni content austenitic steels such as Alloy 600-800
- ✓ Low temperature steels such as UNI EN10028-4 X12Ni5; 13MnNi 6-3 and X8Ni9



Thanks to the joint between *Chematek and NEC*, **ChemNec** consortium can provide a reliable, complete and flexible service, according to all the qualitative standards required from its Clients, with an excellent mix between high qualitative results and low levels of expenses.



Chematek SpA supply chemical products for the oil and gas market all around the world.



www.chemnec.com

NEC have strong capabilities for the design and procurement of electrical-instrumentation systems and established strong working relationships with several equipment and installation companies like:



- Full service EPCm company
- Strong experience in Oil & Gas applications
- Flexible project delivery approach
- Project & risk management system
- Quality management of work processes
- Strong experience with technology licensors
- International standards & requirements knowledge

Thank you for your attention.

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