HAMRIYAH, UAE MANUFACTURING FACILITY



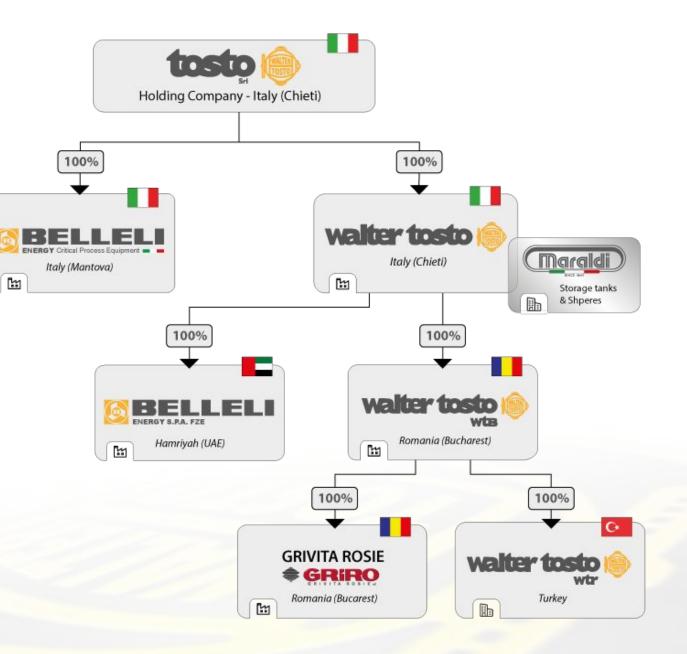














= Workshop = Office

The Tosto Group is comprised of several Companies in various areas of business. This company organization chart refers to the Companies strictly involved in Oil & Gas, Petrochemical, Nuclear and Big Science Business.

Facts and Figures

Employees: 1.300



Investments: 75.000.000 € in 5 years



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Turnover: over 220.000.000€



Assets: 400.000.000 €



Equity and Reserves: 150.000.000€



.......... Order Portfolio at September 2023: 700.000.000€

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Refining

Crude Oil Distillation unit Vacuum distillation unit Naphtha hydrotreater unit Catalytic reforming unit Alkylation unit Isomerization unit

Distillate hydrotreater unit

Amine gas treater, Claus unit, and tail gas treatment

Fluid catalytic cracking (FCC) unit

Hydrocracker unit

Visbreaker unit

Delayed coking



Chemical & Petrochemical

Ethane cracking: PE/HDPE/LDPE/PP

EB/SM Styrene Ethylene Oxide (EO) Ethylene Glycol (EG)

PVC

Propylene Oxide (PO) and

Tertiary Butyl Alcohol (TBA) Ammonia

Methanol

Urea



Gas Process

Natural GAS Processing (NGL)

Liquefied Natural GAS (LNG)

Gasification Plant

LPG Storage

GAS to Liquid (GTL)

Coal Gasification

Gas compression

Process skids/modules



Power and Big Science

Conventional

Nuclear

Renewable





HYDROCRACKING/ HYDROTREATING REACTORS

UNITS:

Over 250 units built since 1988 Over 100 units in modified Cr-Mo-V

WEIGHT:

From 200 tons to 2000 tons

MAXIMUM DIMENSIONS:

Shell Thck 350 mm Dia. Up to 6 mt

MATERIALS

2.25 Cr 1 Mo Standard 2.25 Cr 1 Mo Enhanced 2.25 Cr 1 Mo 0.25V Modified 12 Cr Mo 9 10

DESIGN CODES:

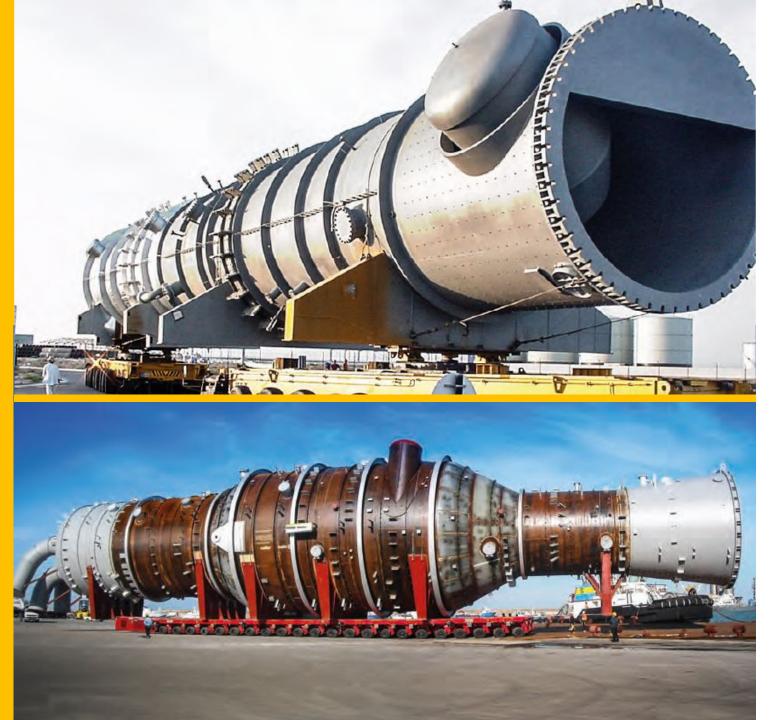
ASME, AD-Merkblatter, BS5500, Stoomwezen, Finnish Code, EN 1445

PROCESS LICENSORS:

UOP, CLG, ExxonMobil, AirlLiquide/Lurgi, Axens, KBR, Haldor Topsoe, Shell Global Solutions



TO STO



HIGH PRESSURE VESSELS & COLUMNS

UNITS:

Over 750 units built since 1966

WEIGHT: From 10 tons to 1400 tons

MATERIALS

Carbon Steel 1.25 Cr 0.5 Mo 2.25 Cr 1 Mo Standard 2.25 Cr 1 Mo Enhanced

DESIGN CODES:

ASME, AD-Merkblatter, BS5500, Stoomwezen, Finnish Code, EN 1445

PROCESS LICENSORS:

ExxonMobil, CLG, BP, Shell Global Solutions, ConocoPhilips, UOP, Axens, Haldor Topsoe, Foster Wheeler, Technip, Saipem, KBR, Linde, Casale, Toyo, CB&I, Air Liquide, ThyssenKrupp/ Uhde, Davy Process.



LARGE COLUMNS







BULLETS



1.510



BREECH LOCK HIGH PRESSURE HEAT EXCHANGER

UNITS:

Over 220 units built since 1980

WEIGHT:

From 20 tons to 200 tons

MAXIMUM DIMENSIONS:

Tubes length: >10.000 mm. Shell Diameter: up to 1.700mm.

MATERIALS

1.25 Cr 0.5 Mo 2.25 Cr 1 Mo Standard 2.25 Cr 1 Mo Enhanced 2.25 Cr 1 Mo 0.25V Modi □ ed (+ 60 units) 12 Cr Mo 9 10

DESIGN:

Breech Lock (proprietary design), Bolted In, Combined Breech Lock-Bolted In

PROCESS LICENSORS:

Chevron, UOP, CLG, Exxon, Axens, KBR, Shell



10510



SHELL & TUBE HEAT EXCHANGER

UNITS:

Over 950 units built since 1980 > 60 units modified Cr-Mo-V

WEIGHT:

From 30 tons to 800 tons

MATERIALS

1.25 Cr 0.5 Mo 2.25 Cr 1 Mo Standard 2.25 Cr 1 Mo Enhanced 2.25 Cr 1 Mo 0.25V Modified 12 Cr Mo 9 10

DESIGN: Up to Three-Stacked Exchanger

PROCESS LICENSORS:

Chevron, UOP, CLG, Exxon, Axens, KBR, Shell



SHELL & TUBE HEAT EXCHANGERS







SHELL & TUBE HEAT EXCHANGERS









TUBOLAR REACTORS

UNITS:

Over 30 units built since 1989

WEIGHT:

From 900 tons to 1160 tons

MAXIMUM DIMENSIONS:

Reactor Length: 30.000 mm Shell Diameter: 7.200 mm N. Of Tubes: 29.400

MATERIALS

Carbon Steel, Micro-Alloyed (high strenght) steel, Low Alloy steel, 300 Series and Duplex Stainless steel

PROCESS LICENSORS:

Shell, KBR, BASF, Scientific Design, Lurgi, Toyo





METHANOL REACTORS

UNITS:

30 Large Units built since 1989, including N.2 Water Cooled N.1 Gas Cooled

WEIGHT: From 100 tons to 475 tons

MAXIMUM DIMENSIONS:

Max Tube Length: 10.500 mm Shell Diameter: 5.470 mm N.Of Tubes: 6.400

MATERIALS

Carbon Steel, Low Alloy Steels, 300 series and Duplex Stainless Steel

DESIGN CODES: Methanol Process

PROCESS LICENSORS: Haldor Topsoe, Air Liquide/Lurgi, Toyo, Davy Process Technology.



10.510





UREA EQUIPMENT

UNITS:

> 50 units built since 1980

WEIGHT:

From 25 tons to 500 tons

MATERIALS

High Strength Carbon Steel, 316 L Urea Grade Stainless Steel, 25-22-2 High Alloy Steels, Safurex, Duplex Steel

DESIGN CODES:

Urea Stripper, Carbamate Condensers, Scrubbers, Urea Reactors

PROCESS LICENSORS:

Stamicarbon, Snamprogetti, Toyo Engineering

10510



AMMONIA EQUIPMENT

UNITS:

Over 70 units built

WEIGHT:

From 25 tons to 400 tons

MATERIALS

Ammonia Converter, Ammonia Converter Baskets, Waste Heat Boilers, Gas-Gas Exchanger

DESIGN CODES:

Urea Stripper, Carbamate Condensers, Scrubbers, Urea Reactors

PROCESS LICENSORS:

Haldor Topsoe, KBR, Snamprogetti, Ammonia Casale, Thyssen-Krupp/Uhde

Other Products



Cold Separators



Sweet Gas Scrubbers



Mercury Removal Vessels



Slug Catcher



Cool Separators



Dehydration Inlet Gas Scrubber



Other Products



Dehydration Adsorbers



Dehydration Inlet Gas Scrubbers



NGL Surge Tank



NGL Surge Tank







TO STO

The combined three plants capacity is 158.000 m² Workshop covered area and 490.000 m² of Workshops uncovered area, with more than 1000 people and an overall capacity of 900 000 Manhours/Year.



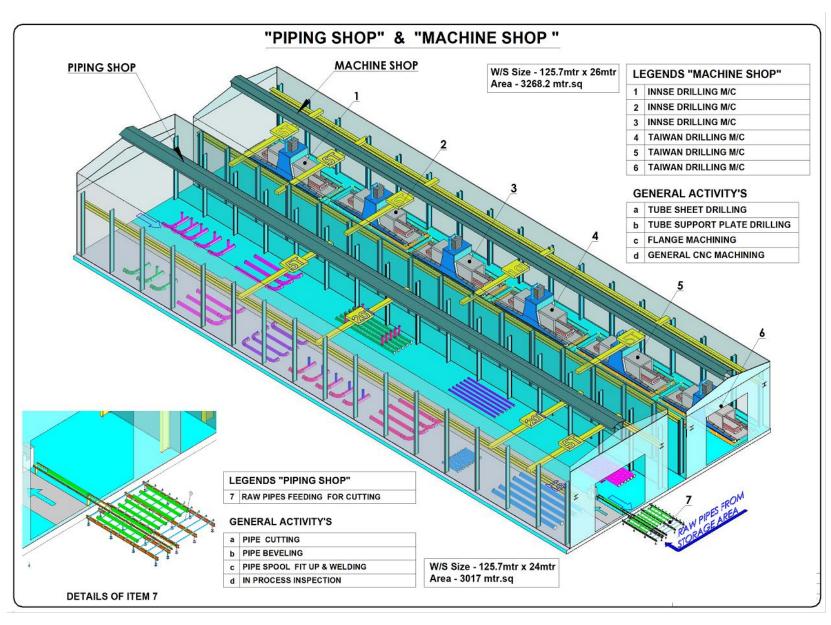
BELLELI ENERGY S.P.A. FZE HAMRIYAH MANUFACTURING FACILITY







WORKSHOP-1



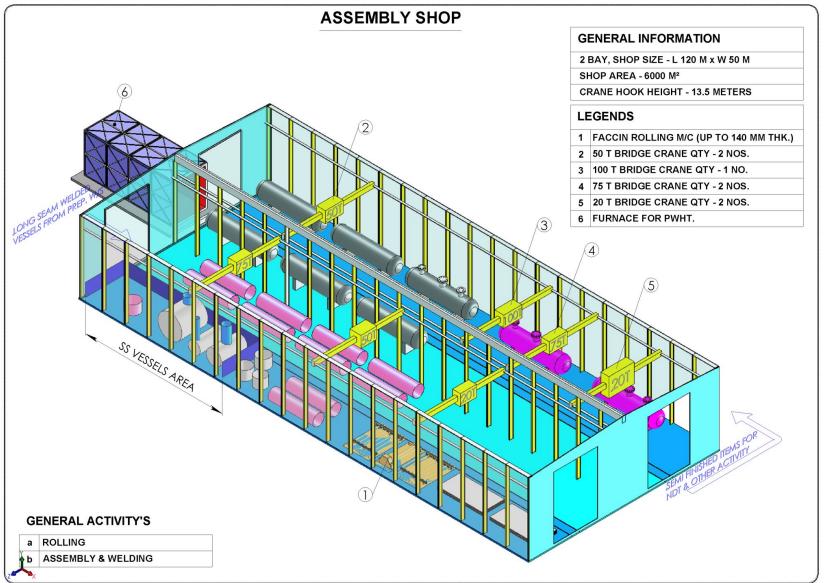








WORKSHOP-2



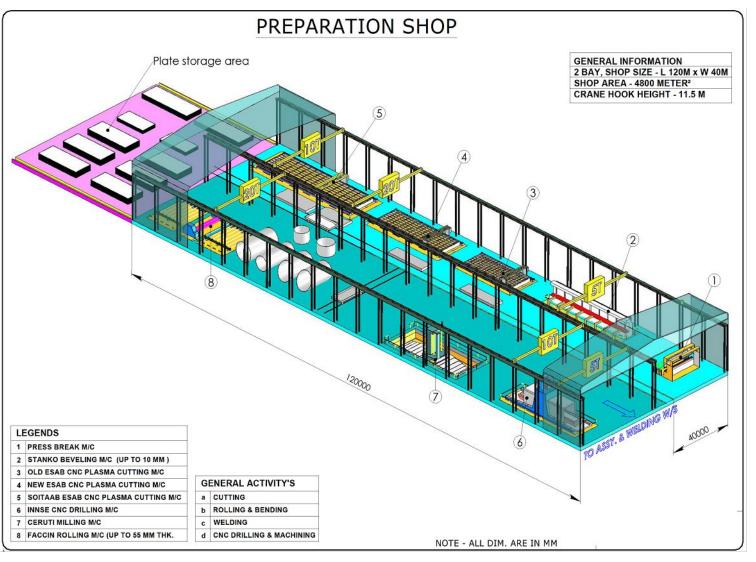








WORKSHOP-3









HAMRIYAH MANUFACTURING FACILITY







PRESSURE VESSELS

Materials : CS, LAS, SS, CLAD Weight : Up to 1000MT Size : Up to 10M dia, 70M Lg, 300mm Thk



Open Area Workshops **Open Yards**

: 110,000 Sq.Mtr. : 20,000 Sq.Mtr. Covered Area : 3 Nos. : 4 Nos.



: 20,000⁺ Inch Dia / Month : 120,000⁺ Man-hours

4



 Blasting & Painting Shops Radiography Bunkers
 Cranes & Boogles

Operational 24x7



PROCESS SKIDS

Water Injection

PIPE SPOOLS

INCOLLOY, MONEL

· ID Overlay & Cladding (2"~24")

· Automatic Cutting & Welding · Pneumatic & Hydrostatic Testing

- Gas Treatment
- Gas Compression
- · Sulfur Recovery (SRU)
- Triethylen Glycol (TEG)
- · Oil Separation and Dehydration

SERVICES UNDER ONE ROOF

- · Design & Detail Engineering
- · Supply Chain & Logistics
- · Manufacturing
- · Heat Treatment
- · Non-Destructive Examination
- Painting, TSA Coating
- Insulation, Refractory Lining
- · Electricals & Instrumentation

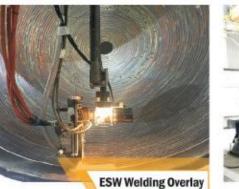


CAPABILITIES



WELDING CAPABILITIES

More than 2,000 qualified weiding procedures. Team of 300⁺ qualified welders.





Automatic Pipe ID Overlay

PIPING & MACHINE SHOP

MACHINE SHOP

- Tube-Sheet & Baffles Drilling
- · Horizontal Boring Machine
- Vertical Boring Machine
- · Lathes, Milling & Drilling Machines
- CNC Machines

PIPE SPOOL SHOP

· Maximized automatic welding

Super Duplex & Clad pipes

· ID overlay from 2" to 24" diameter

• Pipes sizes from 1/2" to 50" diameter

· Exotic materials like Inconel, Monel, SS,















Narrow Gap SAW Tandem Welding





Automatic Tube to Tubesheet Welding



ASSEMBLY SHOP

PREPARATION SHOP

- Heavy Rolling Machine up to 140 mm thick
- EOT crane Lifting capacity up to 175 MT
- Long Furnace up to 750°C



- 200MT Press for Bending Pressing up to 40mm thickness
- CNC Cutting machine
 200mm Carbon Steel
 80mm Stainless Steel

ARRESS.

- Columns
- · LPG Bullets
- Pressure Vessels
- Heat Exchangers
- · Heavy Wall Vessels
- Compression Equipment Packages





- CNC Beveling machine
 Single V
 Double V
 J Groove
- Medium Rolling Machine up to 40mm thick



Capabilities

PORT & LOADOUT FACILITY

Heavy Lift and RO-RO Load Out Capability	Hamriyah Port
Water Depth & Draft (Meter)	14 M & 12.5 M
Linear Meter (LM) of Bulkhead	4 L, 180 W, 15 D
Ocean Access Routing	Ship & Barge



MBUMBO +







- Arabtank Terminals Limited (ATTL Yanbu)
- Basrah Gas Company

MAJOR CLIENTS

- · CMI Belgium (Currently John Cockerill)
- China Petroleum Engineering & Construction Corporation (CPECC)
- Crescent Petroleum
- Daewoo E & C
- Dana Gas
- DUGAS
- Emirates General Petroleum Corporation
- Fisia Italimpianti
- Flour Corporation
- · Hitachi Zosen Corporation
- Horizon Djibouti Terminals Ltd
- Jacobs Engineering Group
- JGC Corporation
- KazakhOil Aktobe LLP
- Kuwait Oil Company
- Lukoil

明儿林台口

- Maersk Oil
- · Occidental Petroleum (Oxy)

- · Pearl Petroleum Co. Ltd
- Petrobas
- Petrofac
- Petronas
- Petroleum Development Oman (PDO)
- Saipem
- Saline Water Conversion Corporation (SWCC)
- Samsung Engineering
- Saudi Aramco
- Sharjah National Oil Corporation (SNOC)
- Shell
- Sidem
- Socar Aurora
- SPETCO International Petroleum Company
- Tatweer Petroleum
- Tecnicas Reunidas
- Technip Engineering Company
- Thermo Design Engineering Ltd (TDE)
- TOTAL
- Toyo Engineering Corporation
- VOPAK Horizon Fujairah
- Zakum Development Company (ZADCO)
- Zhaikmunai LP







Thank you for your attention

