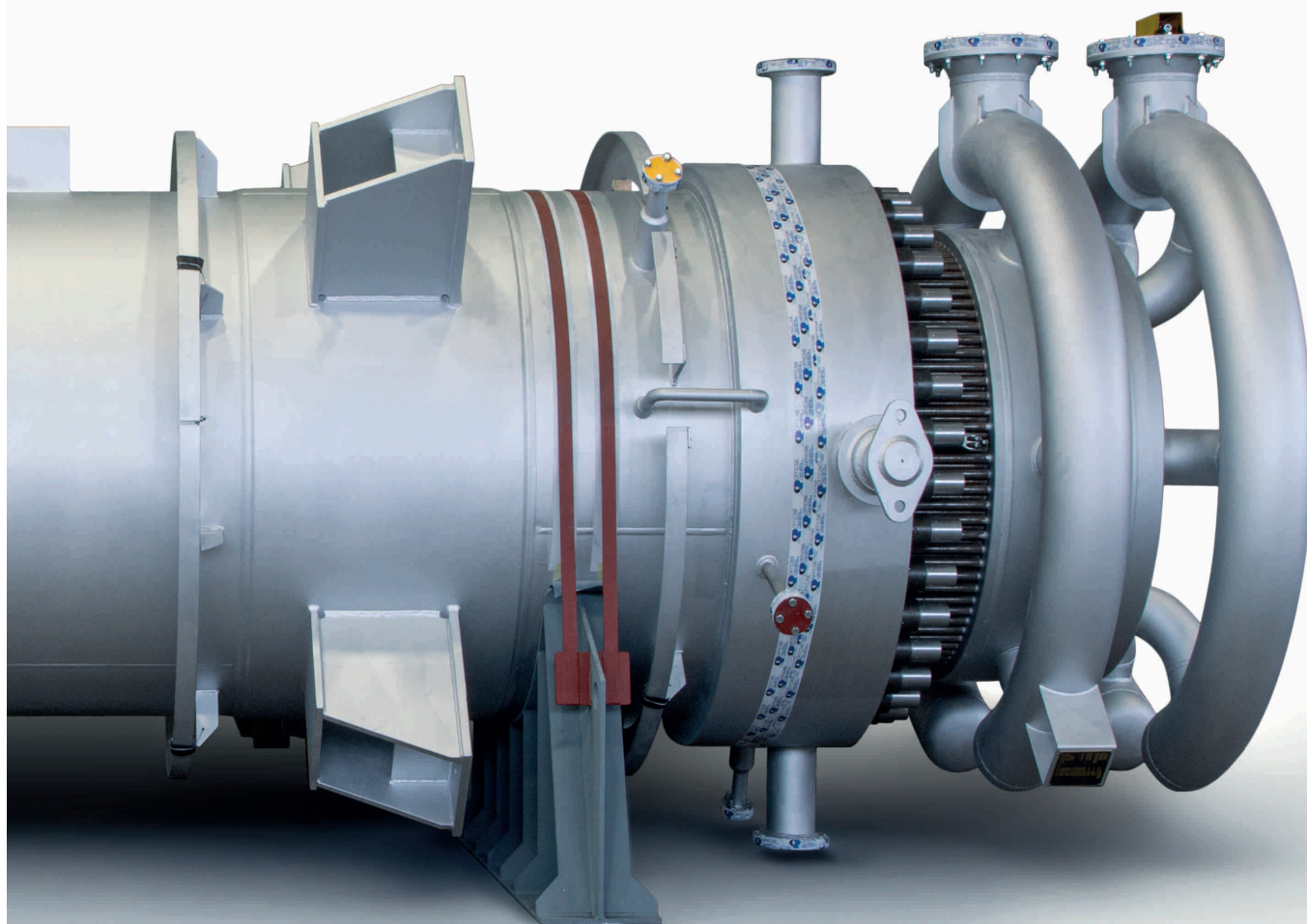


Officine **LUIGI RESTA** SpA



Critical process equipment for oil & gas, fertilizer, petrochemical and power industries



FOCUS
ON EXCELLENCE

Since 1950 Officine Luigi Resta has been designing and manufacturing critical process equipment for the Oil & Gas, Fertilizer, Petrochemical and Power Industries.

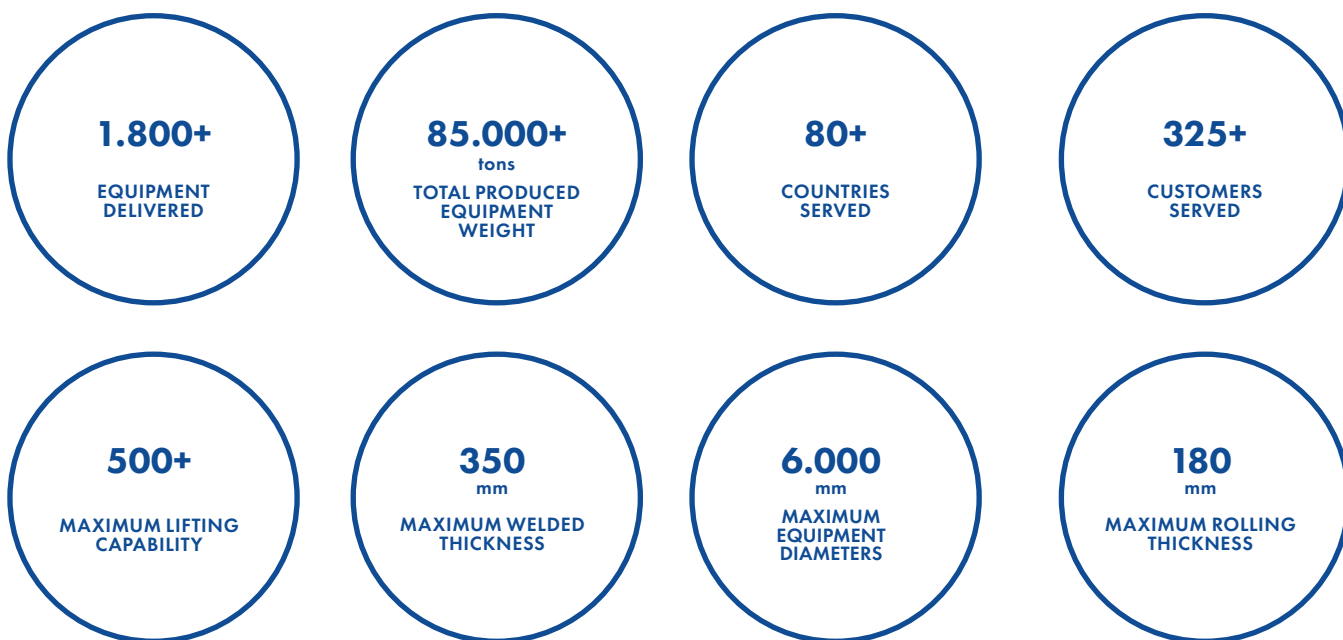
Officine Resta is Focus on excellence

Over the years the Company has continuously improved its manufacturing techniques and facilities in order to properly respond to the market demand in the supply of **high pressure equipment, critical items and in the welding of exotic and unconventional materials.**

The Company is also pleased to announce its involvement in the **Low Carbon Industry**

having already successfully manufactured equipment for the Hydrogen market, for the capture and processing of CO₂, as well as for the production of renewable fuels.

The extensive experience acquired over more than 70 years guarantees our after-sales team the possibility of providing efficient, fast and reliable maintenance and repair services at the Customers' plants.



Your ideal partner

Thanks to the high quality standards, reliability and continuity expressed over the years, today Officine Luigi Resta Spa stands as a point of reference in the static equipment market and as an ideal partner for End Users, Licensors and Engineering Companies.

Markets

Oil & Gas

Since the early sixties, Officine Luigi Resta has been constantly working in the Oil & Gas market. Due to the wide experience acquired over the years, the Company turned to be a landmark within the Shell & Tube Heat Exchanger and Pressure Vessels supply for the **refining, gas treatment and off-shore markets.**

Fertilizer

Officine Luigi Resta is worldwide recognized as one of the most qualified Company in the Fertilizer market. Infact since the eighties, it has been dealing with all the main End Users and Process Licensors of **urea, ammonia, acid nitric and methanol plants.**

Petrochemical

The wide fabrication range and the broad materials portfolio that distinguish Officine Luigi Resta, as well as the robust know-how acquired over the years, have been the main asset to be recognized as the ideal Partner for the manufacturing of Equipment and the Petrochemical market as well.

The Company has nowadays been dealing with the key Players in the market, with a keen focus on the engineering and manufacturing of most critical Equipment and first in kind ones.

Power

The energy industry is strategic so that beside the Oil & Gas market, Officine Luigi Resta is very actively involved in power generation as well. Over the years we have delivered several Shell & Tube Heat Exchangers for conventional power generation plants and also for nuclear projects.

Low carbon

The Company is also pleased to announce its engagement in the Low Carbon Footprint Industry sector, having successfully manufactured equipment for the Hydrogen market, for the capture and process of CO₂, as well as for the production of renewable fuels.



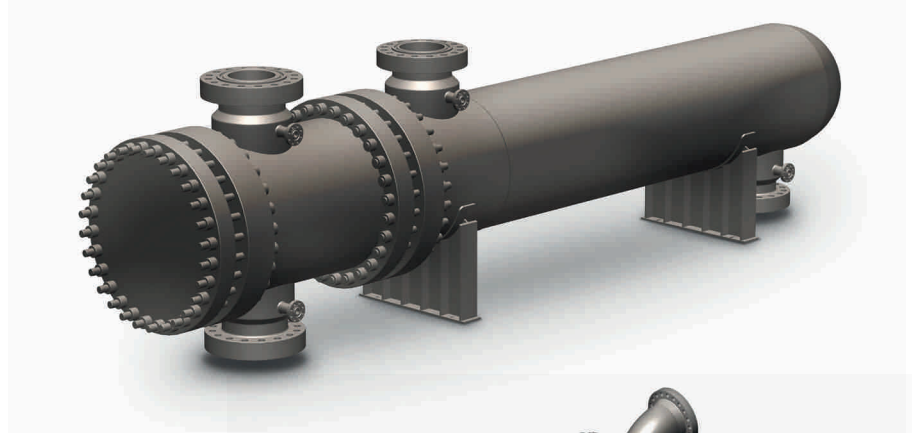
Products

Shell & Tube Heat Exchangers

The production range of Officine Luigi Resta covers most of the Shell & Tube Heat Exchanger typologies, including:

TEMA type, Welded Diaphragm, Bolted-in and Screw Plug.

Over the years the Company also developed remarkable skills on **inner bore welding** as well as on special bundles configurations like **Rod and Grid baffles, fountain tube bundles, bayonet** and **low finned tubes**.

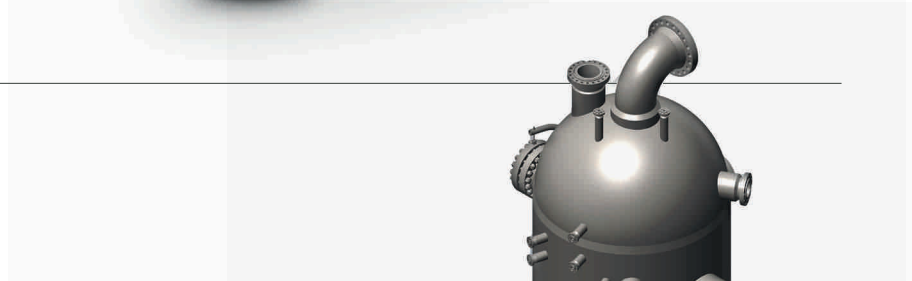


Pressure Vessels

The production range of Officine Luigi Resta covers a very large number of **Reactors, Separators** and **Storage Vessels**.

Loose lining, explosion clad plates and **refractory lining** are some of the specialties the Company handles.

Thanks to the close cooperation with specialized companies, Officine Luigi Resta is also in position to design and deliver **complete units with process internals** as well.



Tubular Reactors

Officine Luigi Resta has over the years manufactured a large number of Tubular Reactors with different features and material and for the most various applications and markets.

Thanks to the flexibility and wide fabrication range, the Company is in position to design and manufacture complete units with connecting piping and drum as well.



Special equipment

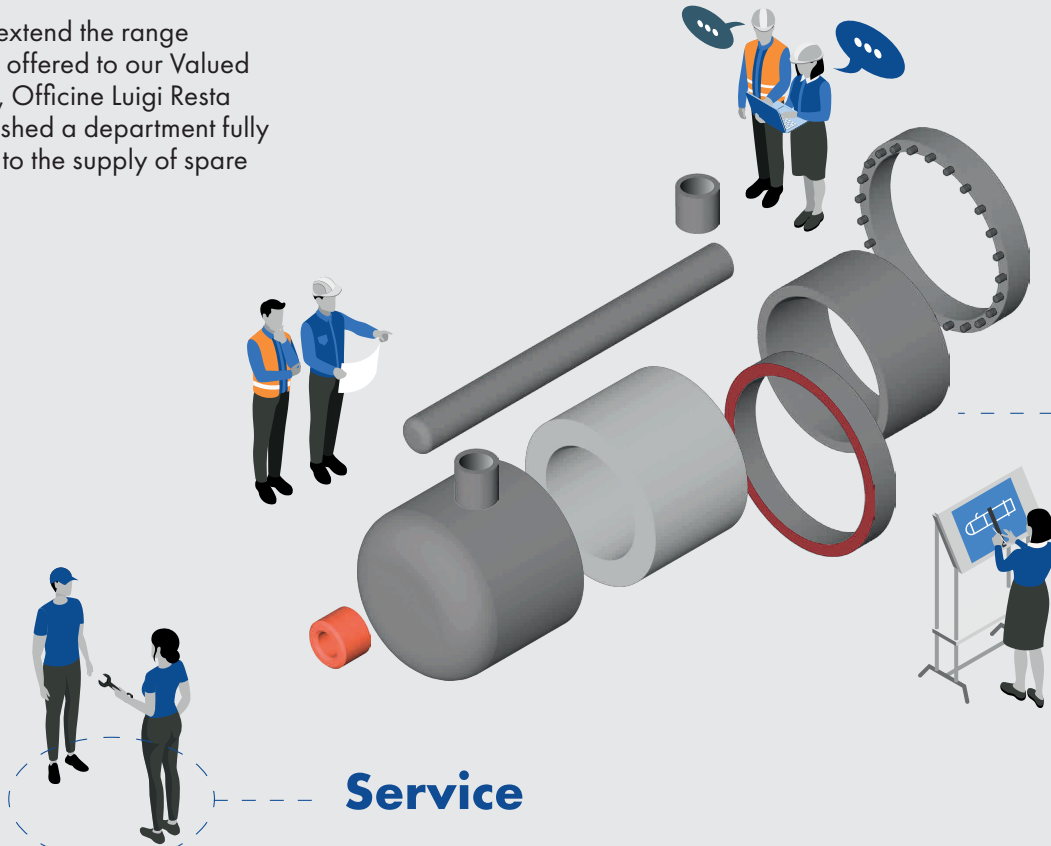
The robust know how acquired over the years as well the strong manufacturing capabilities and the wide flexibility, lead Officine Luigi Resta to be leader Company in the design and manufacturing of Special Equipment and First in Kind Items.

Officine Luigi Resta works closely with Customer's engineering team to ensure the most effective design, development, and fabrication activities, meeting the challenges presented by the development of non-traditional components and respecting the Customer's confidentiality requirements.



Spare parts

Aiming to extend the range of services offered to our Valued Customers, Officine Luigi Resta has established a department fully dedicated to the supply of spare parts.



Service

Our highly specialized team will provide the more efficient, faster and reliable maintenance, while repairing and upgrading at customer's plants. What we offer is the most effective site solutions: machining, welding, heat treating and NDE testing are part of what we can perform on site. Supervision and control of activities committed to third parties can be offered as well.

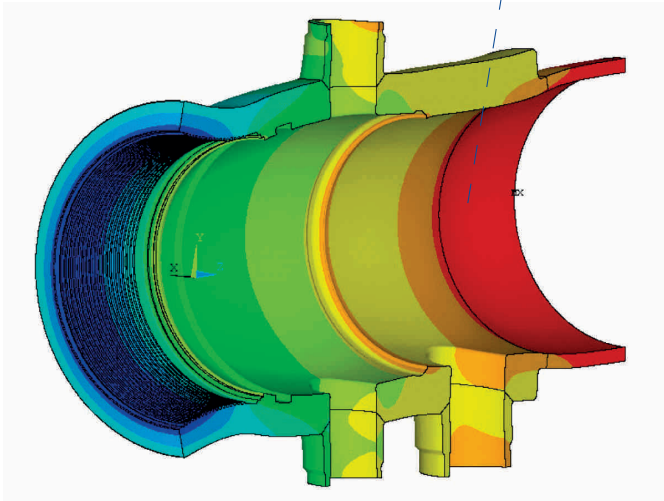
All the works, to be carried out on site, are subject to a deep preliminary evaluation and study by our Engineering Team, provider of reliable solutions. Our After Sales Department operates not only on equipment manufactured by Officine Luigi Resta, but also on third parties equipment. The experience developed by our personnel ranges over Urea, Ammonia, refinery and petrochemical equipment, with a special focus on low alloy steels, Duplex Stainless Steel, Super Duplex Stainless Steel, Nickel alloys and reactive metals such as Titanium and Zirconium.



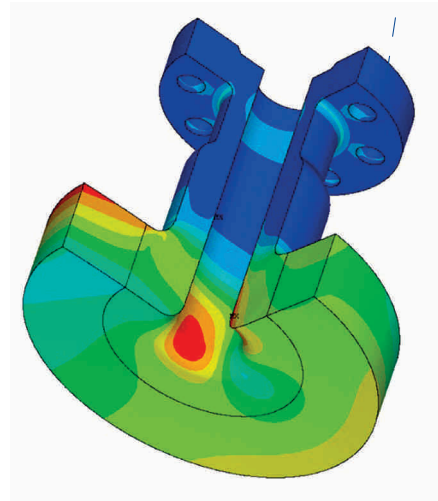
Engineering

- Code Calculations
- In-house developed calculation sheets
- Finite Elements Analysis
- HTRI Thermal Calculation
- CAD 2D and 3D Modelling

STRESS ANALYSIS OF A COMPLETE SCREW PLUG HEAT EXCHANGER



EXTERNAL LOADS VERIFICATION AT NOZZLE TO SHELL CONNECTION

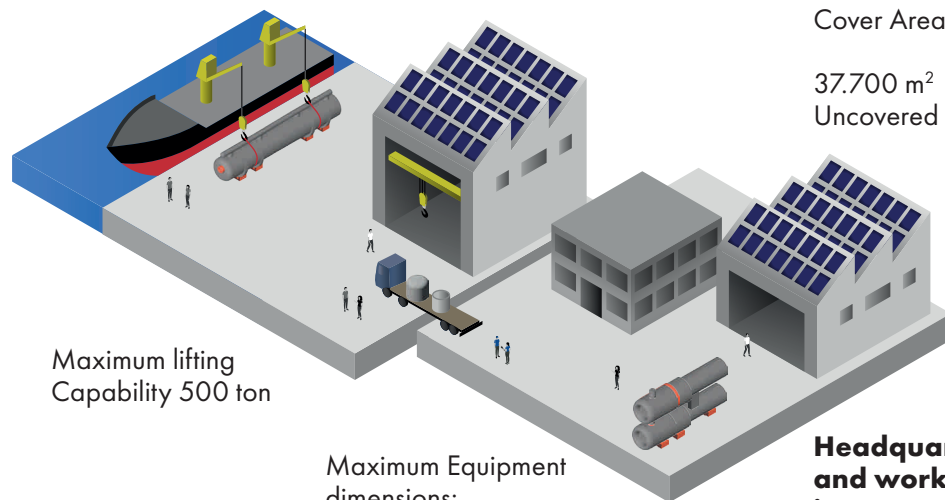


Materials

- Carbon steel
- High strength carbon steel
- Low alloy steels
- High alloy steels
- Stainless steel
- Duplex and Superduplex Stainless steel
- Nickel alloys
- Titanium
- Zirconium

Production

Seaside Workshop in Marghera Port and 300 m far from the dock



16.200 m²
Cover Area

37.700 m²
Uncovered Area

Maximum lifting Capability 500 ton

Maximum Equipment dimensions:
Ø 6000 mm
length 60 m

Headquarter and workshop in Bergamo

Clean room for reactive materials



Rolling

Maximum capacity 180 mm thickness and 5500 mm diameter

Milling

Maximum working capacity 50 ton

Lathing

Maximum turning capacity 5300 mm and 40 ton

BTA drilling

Maximum capacity 1040 mm thickness and 6000 mm diameter

Post weld heat treatment

Gas furnaces, maximum capacity 8000 mm width, 8000 mm height and 30 m length

NDT

- Positive material identification
- Dye penetrant and magnetic particle examination
- Ultrasonic examination
- Advanced ultrasonic examination TOFD/PAUT
- Radiographic examination
- Bunker with 6 MeV linear accelerator
- Pressure test up to 1000 bar/g
- Leak test
- Ammonia test

Internal laboratory

- Tensile test machine
- Impact test machine
- Hardness test machine
- Metallographic microscope
- Stereomicroscope

Who we are

1950

Establishment

Officine Luigi Resta was founded in 1950 by Mr Luigi Resta and was manufacturing low pressure tanks.



1960

Grow up

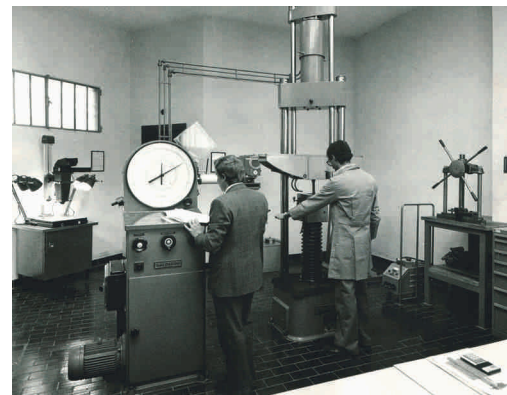
The Company quickly grew up approaching increasingly complex projects in the Oil & Gas markets. The first Pressure Vessel was manufactured in 1963 whilst the first Shell & Tube Heat Exchangers was completed in 1968.



1970

Quality and Know-how

Mr Luigi Resta did glimpse in quality and know-how the key factors to ensure the Company a future as worldwide leader in the manufacturing of static equipment for the Oil & Gas and Petrochemical markets. In the seventies we established the internal laboratory as well as were installed the first CNC machines.



1980

Specialization

During the following years the Company has continuously improved their manufacturing techniques and facilities to properly respond to the market demand in the supply of high pressure equipment and in the welding of exotic materials. In 1981 we manufactured the first high pressure Shell & Tube Heat Exchangers and in 1983 the first Clad Equipment.

1990

New markets

Officine Luigi Resta has started dealing in the Offshore, Petrochemical and Fertilizer markets. The first Titanium Equipment for an Offshore installation was completed in 1991, while the first Ammonia Converter in 1994 and the first Urea Stripper in 1995.



2000

Production capability enhancement

The continuous investments granted Officine Luigi Resta the possibility to further expand the Production Capability. The Company manufactured the first Ammonia Waste Heat Boiler, Methanol Reactor and Urea Reactor. The know-how acquired on the high pressure market led the Company to become a landmark in the design and manufacturing of Screw Plug Heat Exchangers.



2010

Nuclear market & Marghera Port Yard

The evolving development and research of most critical Equipment have pushed the Company to explore also the Nuclear market and in 2010 Officine Luigi Resta obtained the ASME N Stamp. In 2012 the Marghera Port yard was built and the maximum lifting capability raised to 500 ton allowing Officine Luigi Resta to overcome the road transportation limitation.

Today thanks to the high quality standards, reliability and continuity expressed over the years, Officine Luigi Resta stands as a point of reference in the static equipment market and as an ideal partner for End Users, Licensors and Engineering Companies.

1

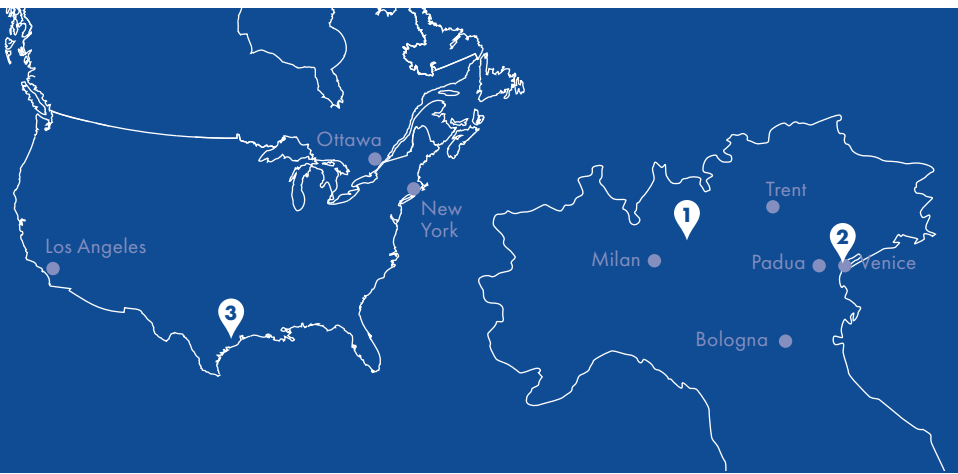
Headquarter & facility
Italy - 24020
Scanzorosciate (BG)
Corso Europa, 49
Ph. +39 035 6611 30

2

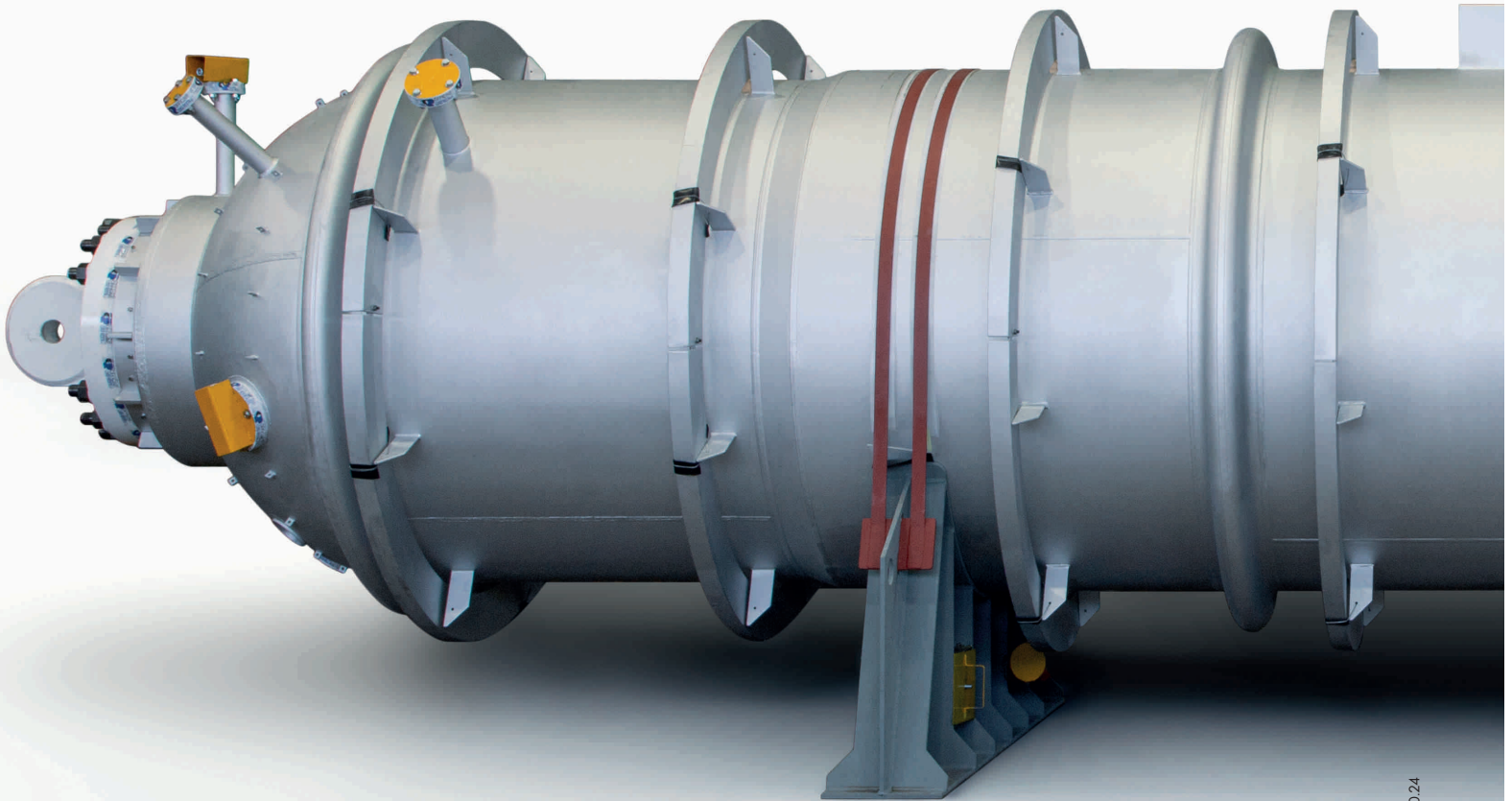
Marghera Port Facility
Italy - 30175
Porto Marghera (VE)
Via Ramo dell'Azoto, 15
Ph. +39 035 6611 30

3

North America office
United States of America, Texas, Houston



design by **studio visuale**



officineresta.it

resta@officineresta.it

officineluigirestaspa@pec.officineresta.it

OFFICINELUIGIRESTA_BROCHURE_EN 10.24