## Villa Scambiatori Srl

- The Company has been founded in 1968 by Alessandro, Ambrogio and Mario Villa.
- VS is privately owned and the fourth generation of Villa family is actually working in the company.
- VS is located in Madignano (CR), 50 Km south-east of Milano, approx.
- VS covers an area of 18,000 m<sup>2</sup> (8,000 m<sup>2</sup> are covered) and employes
  65 people.



#### **Design Capabilities**

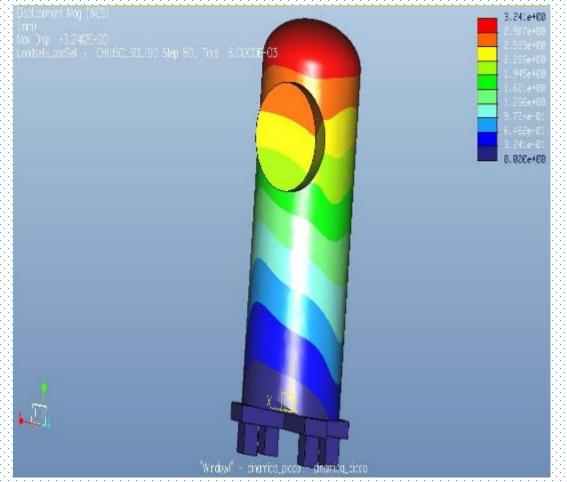
We have experience in handling the following design codes:

- ASME VIII Div. 1
- ASME VIII Div. 2
- ASME I
- EN 13445
- DNV-GL Rules for Ships
- AD 2000
- BS 5500
- CODAP
- VSR
- VSG
- TEMA
- IBR
- GOST R



## **Design Capabilities**

- Thermal and vibrational rating of heat exchangers (HTRI)
- Three-dimensional Finite Element Analysis (3D FEA) using Creo program
- Fatigue analysis of heat exchangers and vessels with thermal and mechanical loads
- Local Stress Analysis
- Nozzles loads analysis acc. to WRC 107/197 and FEA analysis
- Wind and Earthquake analysis
- Lifting and Transportation analysis





#### Products

- Shell and Tubes Heat Exchangers from low to very high pressure (up to 400 barg)
- Pressure Vessels for medium and high pressure,
- Columns,
- Reactors,
- Evaporators and Condensers,
- Breech-Lock exchangers,
- Equipment to be installed on commercial ships and vessels,
- Sulfur Condensers,
- WHB



#### Materials

We routinely handle the following materials:

- Carbon Steel and Low-Alloy Steels (including 1¼Cr, 2¼Cr, 5Cr,12Cr,13Cr)
- Stainless Steel, all grades
- Duplex and Superduplex
- Inconel, Incoloy, Hastelloy, all grades
- Monel and Cu-Ni alloys
- Low Temperature Steels (3<sup>1</sup>/<sub>2</sub>Ni, 9Ni)
- Titanium



## Welding

- Manual (TIG and SMAW)
- Automatic (SAW)
- Weld Overlay (SAW and Electroslag)
  - Stainless steel, all grades (single and double layer techniques)
  - Nickel based alloys, all grades
  - Monel
- Tube-to-Tube sheet Welding
  - Manual
  - Automatic (TIG)
  - Internal Bore Welding

Our welders and welding procedures have been qualified by independent testing authorities, EPCs and end users, worldwide







•

•

•

•



#### Certification

VS Quality System is certified according to the majority of the internationally recognised standards.

Since 1991 the company has been certified to meet the quality assurance requirements of ISO 9001:2015.

VS is organised in departments which operate according to Quality Manual and Procedures.

All the NDT techniques required by Design Codes and Client'Standards are available in house including: PT, MT, Radiography (X and Y rays), UT (including TOFD and Phased Array), PMI, He leak test.

Our NDT personnel is qualified according to EN 473/EN ISO 9712, SNT-TC-1A, we have in house two Level 2 and one level 3 engineers.

We have one Certified International Welding Technologist



#### Certifications

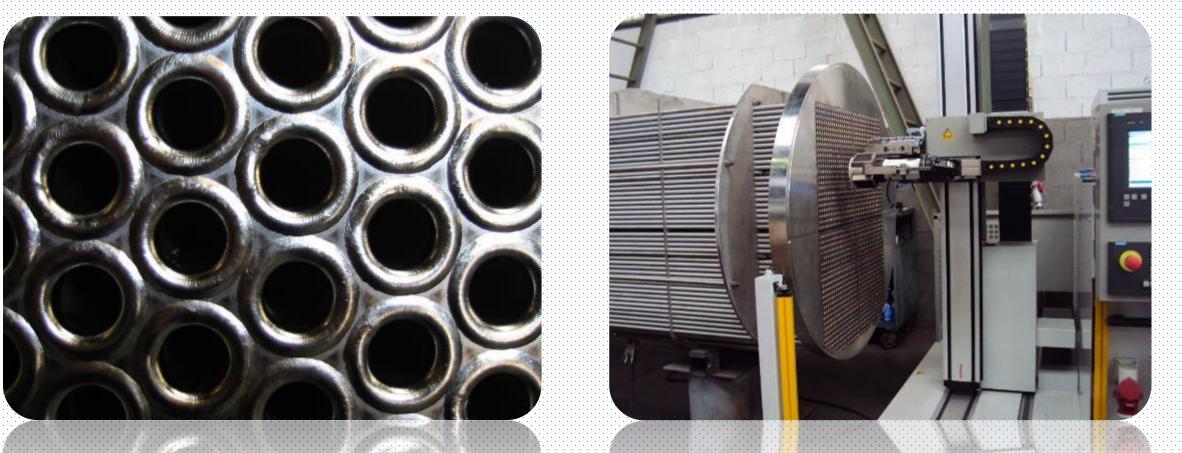
- ISO 9001:2015
- ASME 'U', 'U2', 'S'
- NATIONAL BOARD 'R'
- AD MERKBLATTER HP0
- Naval Qualifications:
  - DNV-GL Naval Class I and II
  - Bureau Veritas MODE II Pressure Vessels and Exchangers
  - Lloyd's Register Fusion Welded Pressure Vessels Class I
  - RINA Fabrication of Pressure Vessels and Heat Exchangers
- Manufacture Licence for People'Republic of China Pressure Vessels A1 and A2
- EAC Certificate for Russia issued by SERCONS
- TC RU 032/2013
- TR CU 010/2011
- SVTI ASIT Pressure Vessels Inspectorate
- Ispesl Qualifica Costruttori
- FPAL Achilles assessement for Northern Sea Offshore Industry



## Our Shop



#### Automatic Tube to Tubesheet Welding





## **IBW Internal Bore Welding**

IBW is the tube welding in the back of the tubesheet, so to become one thing.



#### Past performed Job: Technip for Sasol Secunda – South Africa Bundle Length: 22 mt.







#### **Stacked exchangers**



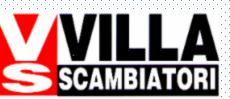
#### Absorbers





#### Reactors





#### **Titanium Exchangers**



Linde Cantarell Mexico



**Ruwais UAE** 



Eni Barbara Platform



### Columns









#### **Equipment for Ammonia Plants** TKIS/Uhde for CFI - Courtright (Canada)









#### LNG Vaporizers LP





#### **TGE for INEOS Grangemouth (UK)**



# LNG Vaporizers MP and HP

#### **TGE for INEOS Antwerpen (Belgium)**













#### **Styrene Plants**

**FCFC – SM1 Plant Taiwan** Feed-Effluent Exchanger – S.S. 304 H Reactor Reheater – Incoloy 800 H





**ENI Versalis Mantova (Italy)** Preheater – S.S. 304 H



#### **Waste Heat Boiler**





## **Big Equipment**







#### Sulfur Condensers – Russia







#### Taif Job IXB 14



#### **Sulfur Recovery Units**



#### HAIRPIN HEAT EXCHANGERS



#### **High Pressure**



## **BREECH-LOCK High/Low Type**





# **BREECH-LOCK** High/High Type







#### **BREECH-LOCK Big Size**



