

Your partner in Oil & Gas and Power Generation



## The Group

300+

**Flenco Employees** Worldwide



Flenco Turnover

40.000+

Square meters Flenco Sites















ilmed



Group **Employees** Worldwide









250.000+

Square meters **Group** Sites









# More than 6100 systems, experience and quality since 1988

Flenco Fluid System is a privately owned **Italian Company** which supplies a wide range of products & services to the **Energy, Oil & Gas, Power Generation** and **Petrochemical** markets worldwide.

The core business is represented by the Engineering,
Procurement, Production and Testing of Auxiliary
Systems and Packages for compressors, gas and steam turbines, pumps, generators and by the Gas Process
Skids.





## Our skills

Flenco's Industrial and Process Engineers are expert in several international standards and are involved in proprietary codes, specifications for major clients in the Oil & Gas and Power Generation business.

The Engineering team counts on 60+ professionals, specialized in industrial and process engineering.

They are spread among the center of excellence in Avigliana, headquarters and historical site of the company, the local offices of Calenzano and Rome, and the branch office of Milan where is located Metanoimpianti, recently acquired for strengthening the presence of Flenco towards EPC contractors and End Users thanks to over 40 years of experience in the gas process packages.

Flenco Process Engineering

- PFD Process Flow Diagrams
- P&ID Piping and Instrumentation Diagrams
- Heat & Material Balance
- Process Equipment Design
- Field instrumentation and Control Room design
- Datasheets

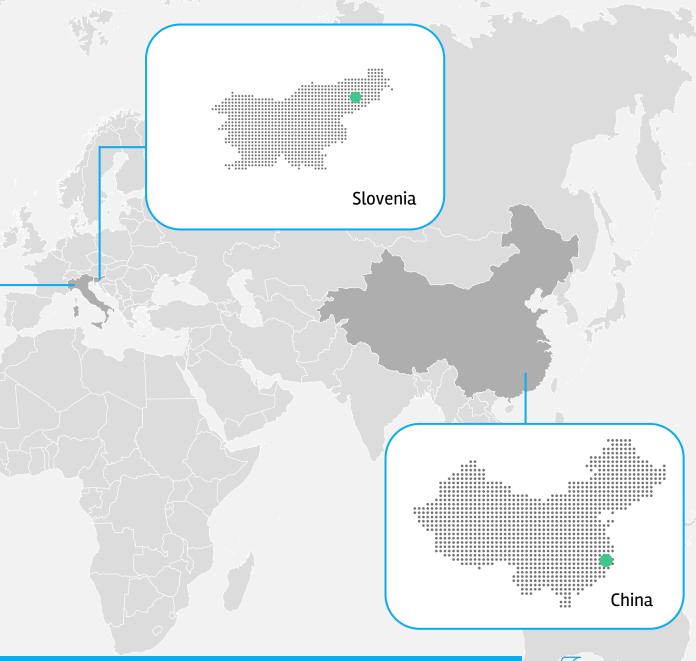
## Flenco Industrial Engineering

- Basic Engineering
- Mechanical Engineering
- Structural Analysis
- Mechanical Calculation
- Piping Stress Analysis
- 3D Modeling and Production Engineering
- Electrical, Instrumentation and Controls Engineering





- Headquarters
- Local offices
- Branch office
- Workshop









## Avigliana Italy

### **Headquarters**

- Business & administrative head offices
- Marketing department
- Sales & aftersales department
- Engineering department
- Purchasing, expediting and logistics department





## Milan Calenzano Rome Italy



#### Branch office and local offices

Milan (Metanoimpianti) branch office and Rome local office are focused on Gas Process Skid business line, providing technical and commercial support to EPCs and End Users starting from the FEED phases to the project development, till the handover to customer.

Calenzano local office provides technical and commercial support to OEM customers.







## Trino Vercellese Italy

#### Workshop

Total area: 21.800 sqm

Total covered area: 8.500 sqm

Assembly / test area: 2.800 sqm

Pre-assembly area: 1.100 sqm

Production / welding area: 2600 sqm

Painting / sandblasting area: 400 sqm

Warehouse: 1.200 sqm

Offices: 400 sqm

NDT area



Cranes:

Assembly: 2x10 tons

Heavy steel fabrication: 2x10 tons

Steel fabrication: 2x5 tons

Painting: 2x10 tons

Pipe welding: 6x1,5 tons







## Ptuj Slovenia



Total area: 22.000 sqm

Total covered area: 8.800 sqm

Offices (two floors): 2.300 sqm

Loading/unloading area: 200 sqm

Assembly/test area: 700 sqm

Pre-assembly area: 1.000 sqm

Production/welding area: 2.000 sqm

Painting/sandblasting area: 270 sqm

Warehouse: 850 sqm

Machining area: 400 sqm

NDT area



Cranes:

Assembly: 2x25 tons + 1x15 tons

Steel fabrication: 2x10 tons

Light steel fabrication: 2x5 tons

Stainless steel

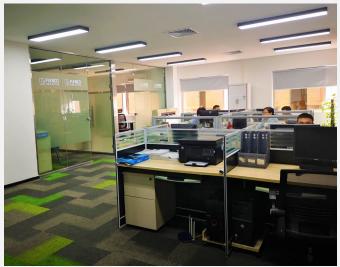
fabrication: 1x10 tons

Pre-assembly: 2x20 tons

Storehouse: 2x5 tons







## Ningbo China



Total area: 3.120 sqm

- Production / welding area: 2.300 sqm(18 m width, 10 m high)
- Warehouse: 400 sqm
- Production offices: 300 sqm
- Offices: 120 sqm
- NDT Area





## Auxiliary systems and packages



#### **LUBE OIL SYSTEMS**

Lube oil, seal oil, hydraulic oil, control oil systems for turbines, compressors, pumps, gears, generators designed according to API 614/ISO10438 or any other standard. They may include overhead tanks.



#### **COOLING WATER SYSTEMS**

Cooling water systems or coolant skids, pump cooling water to the compressor cylinders, as the power input to the compressor is converted to heat in the compression process. Heat is removed by our cooling systems to prevent the gas and compressor parts from reaching excessively high temperatures.



#### **INTEGRATED SYSTEMS**

Integrated systems for lubrication, start up, gas and fuel treatment, including filtration, pumping, injection and controls.



#### **GAS SEAL PANELS**

Gas seal panels, according to ISO 10438:2008 Part 4 and API 614 6th edition, are designed to supply seal and buffer gas to the shaft seals. They include filters, controls, piping or tubing and the related instruments and cover a wide array of flows, pressures and material grades.



#### **FULL PACKAGING**

Assembly of the complete compressor train on the base frames, including mechanical (piping around & structures), electrical, instrumental and controls. Flenco offers a complete testing capability, while the modular design reduces field installation and transportation costs.



#### **STATOR WINDING COOLING SYSTEMS**

Cooling system is designed to provide water free from oxygen to avoid corrosion in the system. The circuit is sealed from the atmosphere and under constant hydrogen overpressure. Water is circulated in a closed-circuit system through hollow conductors in the stator winding bars.



## Auxiliary systems and packages



#### **HYDROGEN COOLING SYSTEMS**

Gas cooling systems cool by filling the generator with hydrogen, maintain under pressure, check the gas purity and evacuate it. To prevent the formation of explosive gas mixtures, the air in the generator is expelled with CO2 prior to being filled with hydrogen.



#### **ACCUMULATOR SKIDS**

Accumulator skids are designed to prevent low system pressure trips during transient events and to provide additional temporary flow when required.



#### **WATER INJECTION SYSTEMS**

For non-Dry Low Emissions (DLE) turbines without a NOx abatement system, a water injection system can be added to lower NOx emissions. This system injects demineralized water into the combustor through the fuel nozzles to regulate the combustor flame temperature and lower NOx emissions.



#### **GAS DRYERS**

A hydrogen gas dryer is a system to dry and/or remove water from hydrogen gas for use in hydrogen-cooled generators, preventing deterioration of the hydrogen's cooling properties. Depending on customers' needs, we are able to provide both desiccant dryers and refrigerated dryers.



#### **AIR SYSTEMS**

Flenco provides a wide range of air systems to produce and distribute compressed air to different utilities, control air for instrument and valves all-over the plant.



#### **WATER WASHING SYSTEMS**

Turbine water wash systems can operate in both online (during turbine run) and offline (during turbine stop) mode. They deliver specified water and detergent flow to the nozzles, thus maintaining efficiency. They can be used onshore and offshore. Our standard systems are designed to be compact and mobile.



## **Process packages**



#### **FUEL GAS & GAS CONDITIONING SKIDS**

Fuel gas & gas conditioning skids treat natural gas and other combustible gases before injection into a critical process. It performs two functions: removing both moisture and any solid contaminants from the gas and regulating the gas temperature to the injection requirements.



#### **GAS SEPARATION PACKAGES**

Gas separation package, with its vane pack or cyclone separators at high efficiency, making them suitable for installation upstream of the gas turbine or turbo-compressor.



#### **WBH & PERFORMANCE HEATER SKIDS**

Heating skids are designed to heat oil, fuels or gases. The heating process is performed by steam, hot water or electricity.



## GAS METERING & PRESSURE REGULATING SKIDS

Gas metering and pressure regulating skids are designed to measure gas or liquid flowrate. The metering skids can be used to provide additional treatments including pressure-reduction and flow control.



#### **FILTERING SKIDS**

The skids treat natural gas and other combustible fluids before injection into a critical process, by removing any solid contaminants from the fluid.



#### PIG LAUNCHERS AND RECEIVERS

Pig launchers and receivers perform maintenance operations (mainly cleaning and inspection) of the pipeline without stopping the flow of the product inside. Pigs or scrapers are pushed from the pig launcher along the pipe until it reaches the receiving trap. During this process, they remove deposits or separate fluids.



## **Aftersales & Services**



#### **SPARE PARTS**

Flenco provides technical definition and sourcing of: capital parts, commissioning spare parts (supplied with main system), repairable and consumable parts.



#### **SERVICES**

Flenco provides field installation assistance, commissioning, testing, calibration, training, technical advisory, troubleshooting and repair services. Our engineers team is on call 24/7.



#### **REVAMPING AND RETROFIT**

Upgrading of existing systems to improve performance, to save maintenance costs, to comply with new regulations and to keep the environmental impacts as low as possible.

## Main customers

































































































































### **Contacts**

## FLENCO FLUID SYSTEM S.R.L.



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## **FLENCO D.O.O.**



#### Ptuj workshop

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## FLENCO NINGBO POWER AUXILIARY EQUIPMENT & SYSTEMS CO.,LTD



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## FLENCO

