



Petroleum, Petrochemical and Gas

# Confab Equipamentos

Confab Equipamentos is the trade name used by the equipment unit of Confab Industrial S.A. With manufacturing facilities located in Moreira César, Pindamonhangaba (SP) – around 150km from São Paulo city and 250km from Rio de Janeiro city –, this unit is able to produce, erect, assembly and do services for industrial equipment for the following segments:

- chemical
- petrochemical
- steelmaking
- energy and steam generation
- oil and gas
- pulp
- infrastructure
- engineering

Fully prepared to meet the demands of the domestic and overseas market, the company has the following certifications: ISO 9001:2000 (Lloyd's Register Quality Assurance), U, U2, U3 and S stamps (American Society of Mechanical Engineers - ASME), R stamp (National Board), Instituto Brasileiro para Qualidade Nuclear (IBQN) and INMETRO (UL Certifications).

Using its own technologies or in partnership with diverse companies, Confab Equipamentos provides complete systems for the segments in which it operates, working closely with the customer from the design stage to project start-up.

EQUIPMENT UNIT	
Total area	904.239 m <sup>2</sup>
Built area	83.700 m <sup>2</sup>
Production capacity	1 million man hours/year
Maximum equipment volume	300.000 tons/year

## Services

- technical assistance
- commissioning
- engineering assistance
- equipment revamping
- project center
- erection

*Partial production for heads of ►  
Coke Drum Reactor in clad steel.*





◀ *Sphere for Liquefied Petrol Gas (LGB) storage.*

## Liquid and Gas Storage Vessels

Among the several types of equipment supplied by Confab Equipamentos are:

### Vertical Cylindrical Tanks for Liquids Storage

Manufactured in compliance with API 620 and API 650 standards, these tanks may have the following configurations:

- floating roof tanks (pontoon or double deck)
- cone roof tanks – self-sustaining and with structure
- dome roof tanks

### Cooled or Cryogenic Tanks for Storing Liquefied Gases

Designed and manufactured in accordance with the product stored.

The tanks may have single or double broadside construction insulated with expanded perlite – coated with polyurethane foam and covered with aluminum foil. In both cases, the tank bottom is insulated with foamglass bricks.

### Pressurized Vessels (Spherical or Cylindrical)

Used to store gases – liquefied or not –, these tanks are designed and manufactured in accordance with ASME Sec. VIII, Div. 1, 2.

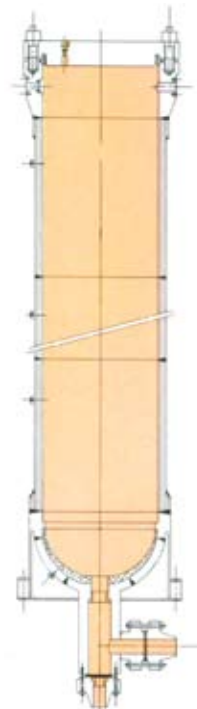


◀ Detail of a high-pressure vessel wall, with six 46 mm – thickness layers.

## High Pressure Vessels and Reactors

In compliance with ASME, Section VIII, Div. 2 standards, Confab manufactures high pressure vessels and reactors, the thickness of which is the result of accurate mechanical calculations.

These vessels may be projected and built with single or multiple walls (multiwalls). Normally highly resistant materials are employed, with an internal coating of noble alloys in accordance with the product to be stored or processed.



▼ Partial Production of shell of high-pressure reactor made in chromium molibdenium steel for HDT/HDS process.



# Columns and Internals

Confab has more than 25 years experience in supplying columns with internals, including trays and random and structured packing.

The manufacturing facilities enable the production of a complete range of columns/towers, using materials ranging from carbon steel to special alloys. The equipment may be shipped fully assembled and tested or pre-assembled at the plant and shipped in identified segments for erection at the customer's site.



▲ Vacuum distillation column.



▲ Column, Petrobras' site, Rio de Janeiro.

# Offshore Equipment

For the offshore oil and gas exploration segment, Confab provides jacket components (tubulars, piles and nodes), subsea drilling templates and process equipment for early production systems.

▼ Jacket for Fixed-Platform PRA-1, Petrobras.



▼ Platform modules.



▼ Subsea drilling template.





▲ Cabin-type fired heater.



▲ Hydrogen reformer.

## Petrochemical Fired Heaters

Confab Equipamentos has more than 40 years experience in projecting, manufacturing, eracting, comissioning and start up assistance for petrochemical fired heaters furnaces as well as for revamping and updating for existing equipment according to the customers particular needs.

Supplying a complete range of fired heaters for the oil and gas industry, Confab activities range from thermal design to assisted operations. The factory teams' experience in applying refractory concrete/thermal insulation, in conjunction with the company's know-how in manufacturing fired heater structural and pressure parts, enables Confab to ship

assembled convection modules directly to the customer's site, resulting in a significant reduction in field erection service requirements. Confab also provides global solutions for revamping fired heaters for purposes of automation, increased capacity and improved efficiency, as well as compliance with global legislation.

▼ Cylindrical fired heaters.





▲ *Butadiene plant.*

## Chemical and Petrochemical Plants

In addition to being a traditional supplier to the oil and petrochemical industries, Confab is renowned for the provision of global plant or system solutions on an EPC (Engineering, Procurement and Construction) or turnkey basis.

Using its own resources or through strategic partnerships, Confab provides full service, ranging from planning, engineering, procurement, supply, construction, erection to assisted operation and training for the plant team.

Supported by integrated management software, all activities are planned and followed up by instant reports showing the evolution of each phase of the project.

Main kinds of projects already supplied:

- atmospheric distillation plants
- PSA – hydrogen generation facilities
- MTBE systems
- steam and electric generation plants

▼ *MTBE system – capacity 79,000 ton/yr.*



▼ *Expansion of Petrobras' Manaus Refinery (REMAN) and new atmospheric distillation units.*





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