

# solutions for the thermoindustrial market



# THE COMPANY

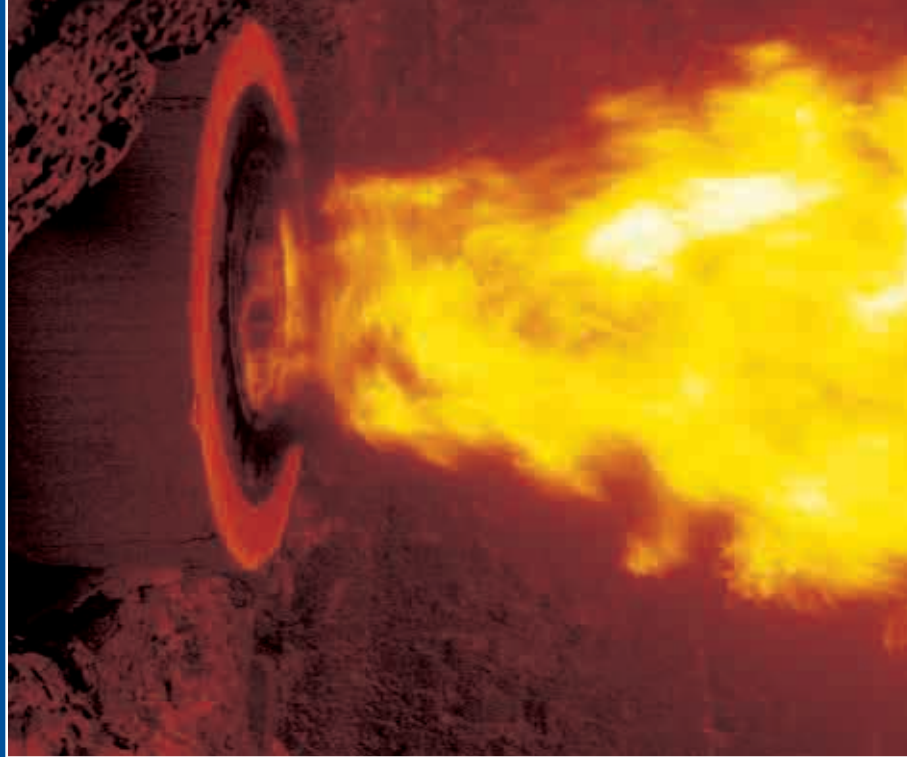
Greco is a company specialized in designing, manufacturing and assembling customized equipment that offers complete solutions for many different industries on five continents.

Greco was founded by Prof. Dr. Clemente Greco in 1966 with the commitment to seek and offer to its clients the most innovative and appropriate solutions in the thermal and environmental area. The faithful maintenance of this commitment allowed Greco a prominent international role and position of repute in markets where it operates.

Thanks to the support of a highly qualified technical team, Greco delivers to the market a wide range of products in its three main areas of activity:

- Engineering services.
- Manufacturing of customized equipment.
- Supplying integrated systems in a turn-key regime.

To expedite the service to its clients worldwide, Greco has, besides its headquarters in São Paulo – Brazil, offices in the European Community, located in Barcelona – Spain, and in China, located in Beijing and Nanjing.





## GLOBAL KNOW-HOW

The world presence of Greco is confirmed by a portfolio of hundreds of designs that were implemented successfully in more than 30 countries, among which US, China, India, Denmark, Sweden, Spain, Italy, France, Mexico and Germany.

Greco business philosophy includes the differentiated service for each of its clients with the objective of always offering the technological solution that best fits the clients' needs.

That is the reason why Greco clients' portfolio includes companies in the most diversified sizes with a presence in the most diversified sectors in the industrial activities:

- Agribusiness.
- Food.
- Ceramics.
- Cement and lime.
- Power.
- Fertilizers.
- Mechanics and metal.
- Mining.
- Pulp and paper.
- Chemical and petrochemical.





## QUALIFIED PROFESSIONALS

To develop customized solutions for thermoindustrial equipment and systems, Greco counts on the most powerful of tools: a team of highly skilled professionals.

A team that was gathered together by engineers that add experience in the analysis, identification, and development of solutions to a broad theoretical knowledge in thermodynamics, multicomponent flows, chemical reactions, heat and mass transfer, construction materials, strength of materials, mechanical construction, etc.



## AN OUTSTANDING ROLE

Customized services and customized solutions developed using last generation technologies, many of which proprietary, are the main differentials that Greco adds to all the products it delivers to its clients. Differentials that added to a recognized technical capacity internationally confirmed, guarantee an exclusive position in the world market of thermoindustrial equipment.

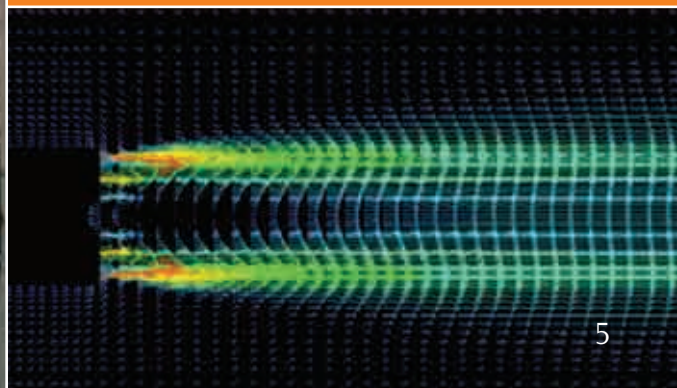




## TECHNICAL RESOURCES

To ensure the improvement and updating of the team's knowledge, Greco places at the disposal of its engineers the library "Prof. Dr. Clemente Greco" – one of the most complete libraries in the field of thermofluidchemicals in Brazil – that includes nearly 15,000 volumes, subdivided among books and papers whose asset is continuously updated.

In addition, the work of the engineers is optimized by the use of the most advanced software and hardware equipment including last generation applications for mathematical modeling, engineering calculations, production of drawings, and the management of designs, manufacturing, and assembly.



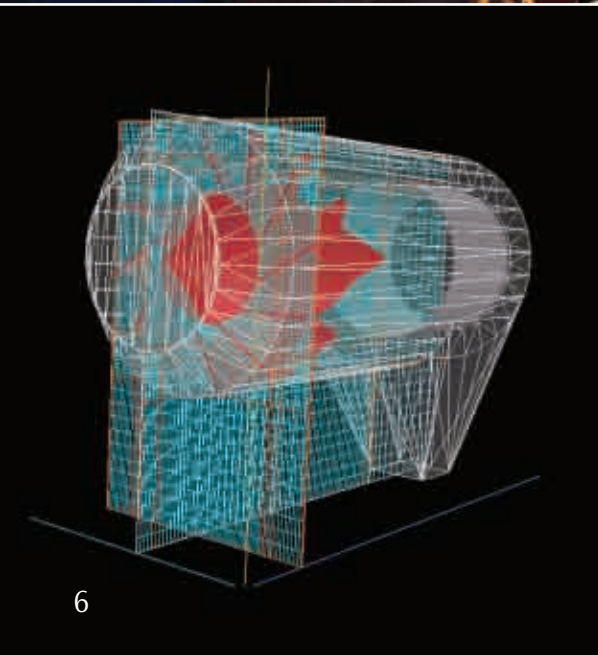


## FIELDS OF ACTIVITIES

Greco delivers to the market customized industrial solutions in different fields of activities.

### ENGINEERING

- Technical analysis and diagnostics.
- Advisory in the area of power.
- Feasibility studies for new fuels.
- Development of technologies in the thermofluidchemical area.
- Designing customized pieces of equipment and systems.



#### SYSTEMS TO SAVE ENERGY

- Heat recovery systems – combustion gases, high temperature effluents, etc.
- Cogeneration systems of low power.
- Use of fuel residues.

#### BURNERS FOR CEMENT AND LIME KILNS

- Main burners and secondary burners – calciner and heating tower.
- Burners for solid, liquid and gas fuels.
- Burners for “traditional” fuels –coal, petcoke, natural gas, fuel oil, etc.
- Burners for residual fuels – plastic bits, sawdust, RDF, animal meal, pneumatic products, washing residues from oil storage tanks, paint sludge, etc.
- Burners for the low emission of  $\text{NO}_x$ .
- Modification, upgrade and revamp of existing burners.

#### HOT GASES GENERATORS

- Vertical generators firing petcoke with 100% of thermal load supported by petcoke.
- Horizontal generators that fire a percentage of petcoke with up to 70% of the thermal load supported by petcoke.
- Solid, liquid and gas fuels.
- “Traditional” fuels, alternative fuels and residual fuels.
- Adjustment of existing generators to fire petcoke.

#### EQUIPMENT AND SYSTEMS FOR DUST RECOVERY AND AIR POLLUTION CONTROL

- Gas scrubbers.
- Vertical bag filters.
- Hybrid filters.
- Tubes, plates or battery heat exchangers.
- Water cooling / conditioning towers.
- Cyclone and multi-cyclone dust collectors.
- Electrofilter to bag filter conversion.
- Dedusting systems.
- Collection systems (fixed and mobile hoods).
- Systems for handling and storage particulate material.

#### INDUSTRIAL BURNERS

- Customized burners with a thermal power above 5 Gcal/h.
- Solid, liquid and gas fuels.
- “Traditional” fuels, alternative fuels and residual fuels.
- Achievement of economic, environmental or production objectives.

#### FUEL SYSTEMS

- Liquid fuels – reception, storage, pumping and conditioning for fire (heating).
- Solid fuels – bulk transportation, milling, drying, dosing and pneumatic conveying.
- Gaseous fuels – measurement and pressure control.

#### INTEGRATED SYSTEMS IN A TURN-KEY REGIME

- Performance of the project.
- Electromechanical assembly and civil works.
- Manufacturing.
- Commissioning.





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