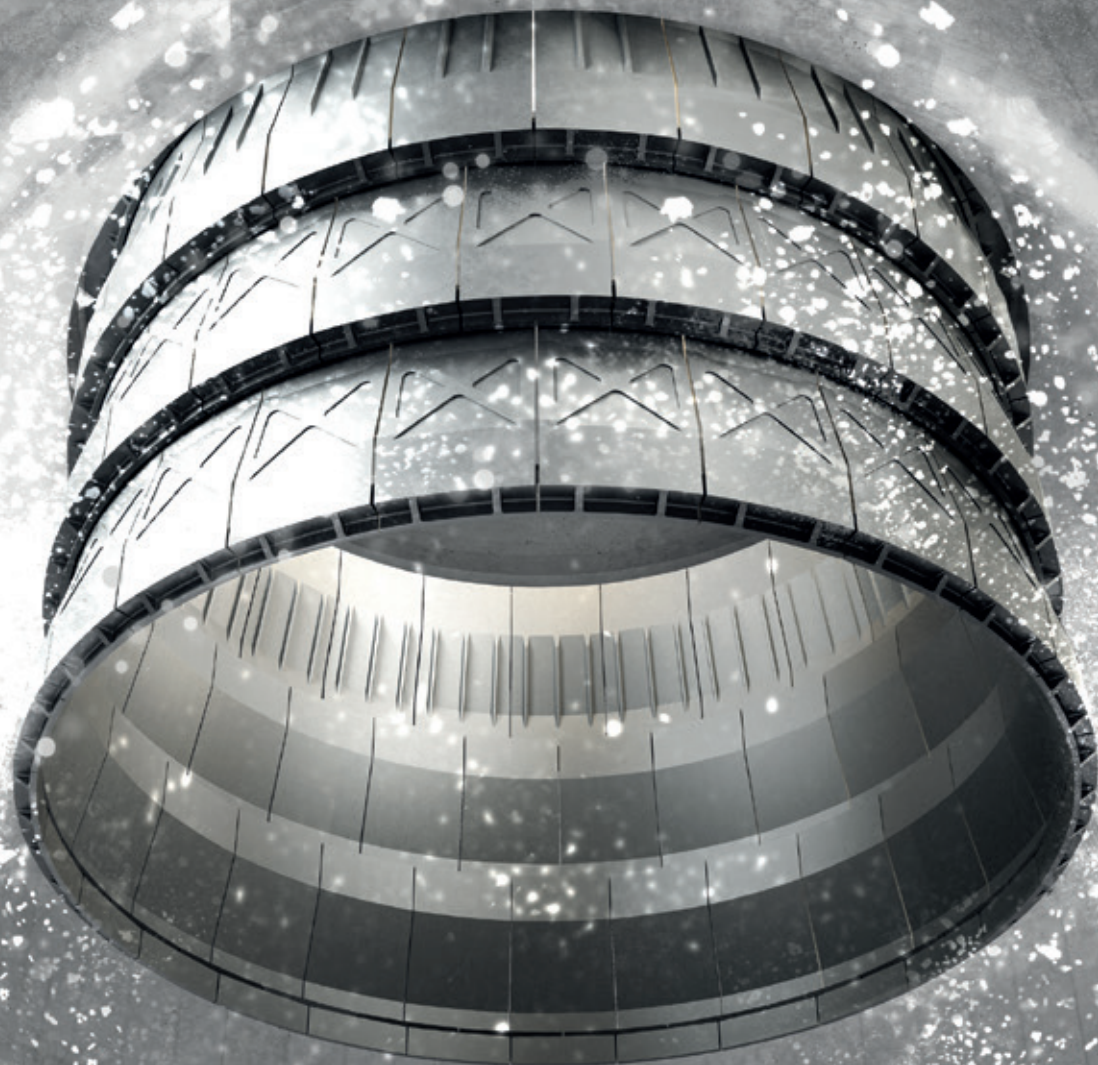


- CEMENT, MINING AND OTHER APPLICATIONS -

EQUIPMENT AND COMPONENTS IN HEAT-RESISTANT STEELS



ESTANDA

www.estanda.com



OVER 60 YEARS EXPERIENCE AT YOUR SERVICE



MINING



CEMENT



RAILWAY



AUTOMOTIVE



ENERGY AND OTHER

CASTING YOUR IDEAS

ESTANDA, founded in 1953, is a **steel foundry** specialised in manufacturing **Parts in high-performance Steel Castings and Alloys**, as well as providing **value-added Technical Services**, tailored to our clients' needs.

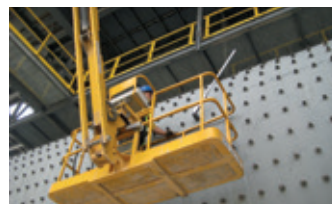
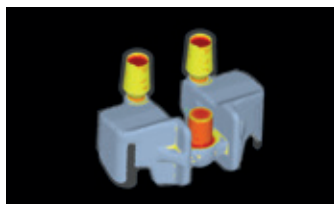
We supply our products and services in **different sectors globally: Mining, Cement, Railway, Automotive, Energy and other.**

We work in close **collaboration with our clients**, on a long-term relationship basis, so that ESTANDA is currently an **international supplier of reference**, actively working for leading manufacturers, as well as for end-user clients.

In our **Beasain** facilities, in the north of **Spain**, we **integrate all activities** of our value chain: Sales and Marketing, Engineering, Manufacturing and Quality, Logistics and After-Sales Service, and General Administration.

This enables us to offer the client a very **personal, flexible and integrated service**, so that it makes a **key differential value**, and part of our **culture** as a company.

With this approach, in ESTANDA we are currently supplying 90% of our products and services worldwide, in **more than 70 countries**.





PERSONALISED APPROACH, OUR VALUE PROPOSITION

01 PROCESS ANALYSIS

- ✓ **Diagnosis** of the client's **facilities and equipment, processes, and working conditions** of the material.
- ✓ **Technical requirements** in terms of resistance to wear, temperature, corrosion, safety and other key parameters.



02 METALLURGICAL ADVICE

- ✓ Analysis of the current material.
- ✓ Proposal and **tests of alternative materials in different steels, to improve performance** in terms of lifecycle.



03 PRODUCT DESIGN AND PROCESS OPTIMISATION

- ✓ Under client design, or providing **own designs to improve the product's performance**.
- ✓ **Process optimisation recommendations** in terms of **lifecycle, cost reduction, increased productivity, or energy efficiency**.



04 PRODUCTION AND QUALITY

- ✓ Integrated **foundry, treatment and finishing** activities.
- ✓ Total **quality control** of the **process and product**, under the strictest European and International standards.
- ✓ **Certifications:** ISO9001, ISO14001, OHSAS 18001.



05 FINAL ASSEMBLY


- ✓ **Supervision** of the final assembly **on site. Delivery** of product and projects, and **guarantees**.
- ✓ Made-to-measure and **turnkey projects**.



06 AFTER-SALES SERVICE

- ✓ Personalised after-sales **follow-up**.
- ✓ **Control of performance** of the products and projects supplied.
- ✓ **Spare parts service**.



169 15078
FEKA 64  17

ESTANDA FEKAs CHARACTERISTICS OF OUR HEAT-RESISTANT STEELS

THANKS TO OUR YEARS OF EXPERIENCE AND DEVELOPMENT OF KNOWLEDGE ON HEAT-RESISTANT STEEL MANUFACTURING, FOR MANY DIFFERENT FACILITIES AND WORKING CONDITIONS, IN ESTANDA WE OFFER:



A WIDE RANGE OF OUR OWN HEAT-RESISTANT STEELS, **ESTANDA FEKAs**

- From which to choose the most appropriate composition for the working conditions of each facility.
- Especially designed for resistance to high temperatures and extreme conditions (chemical attack, corrosion...).
- According to international standards.



PRODUCT DESIGN, POSSIBILITIES.

- According to client drawings.
- ESTANDA own optimised designs for better performance.
- Custom designs tailored to the client's needs.



MATERIALS TEST IN OTHER ALLOYS

- Monitoring and follow-up of results.



SUPPLY OF OTHER COMPOSITIONS OF STANDARD HEAT-RESISTANT STEELS, currently used by the client.



EUROPEAN MANUFACTURING

- Under strict international quality controls and standards.



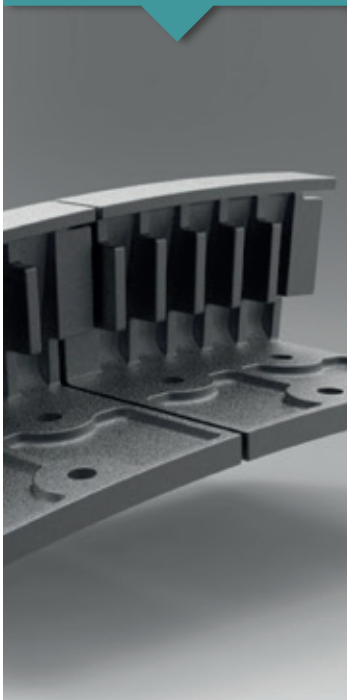
FOLLOW-UP OF THE PRODUCT INSTALLED AND LIFECYCLE GUARANTEES.



MANUFACTURE AND SUPPLY

TAILORED TO THE CLIENT'S SPECIFIC NEEDS

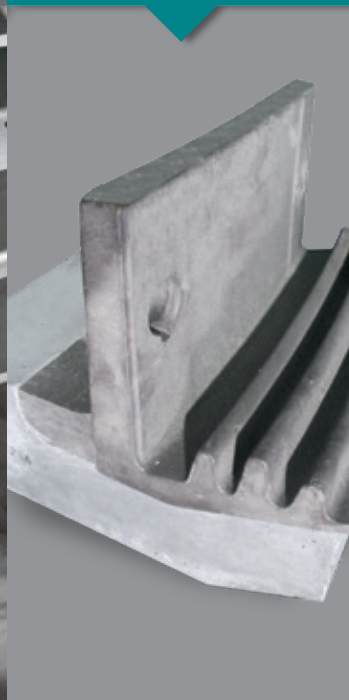
CAST PRODUCT



MACHINED
CASTING
PRODUCT



PRE-ASSEMBLED
PRODUCTS

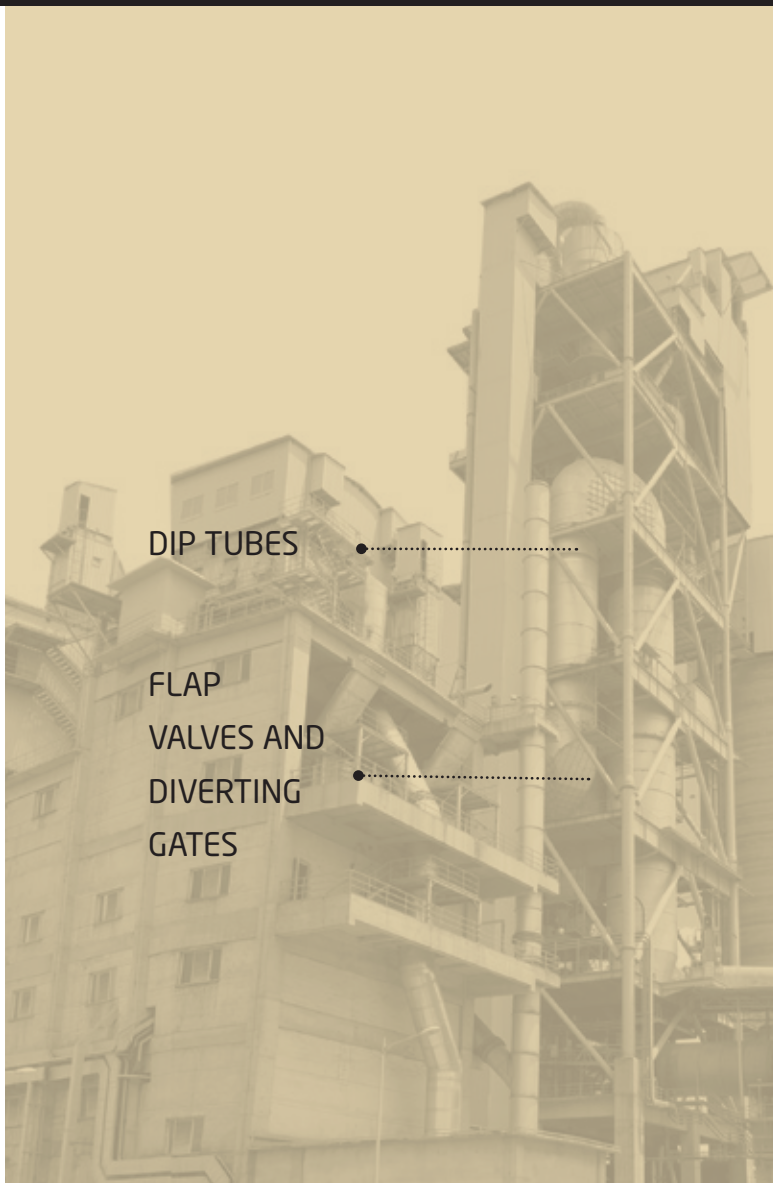


SUPPLY OF
COMPLETE
EQUIPMENTS.
ASSEMBLY
SUPERVISION.
TURNKEY
PROJECTS

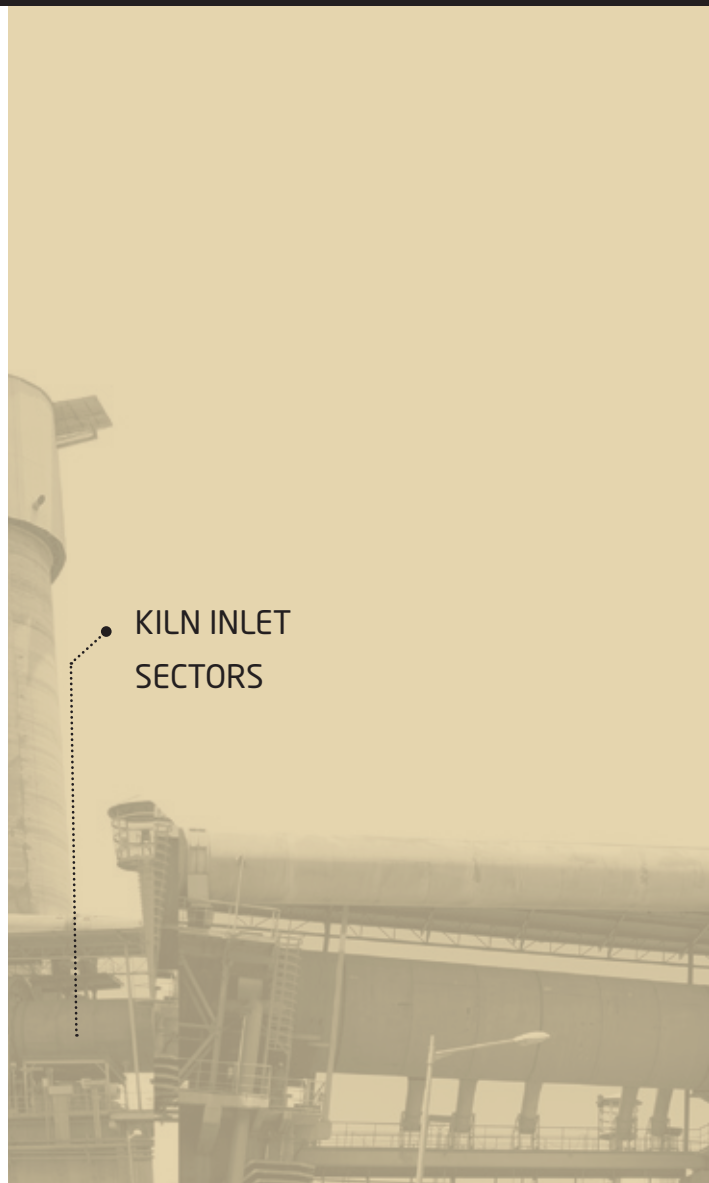


INDEX PRODUCTS BY PROCESS

01 AREA PRE-HEATER



02 AREA KILN

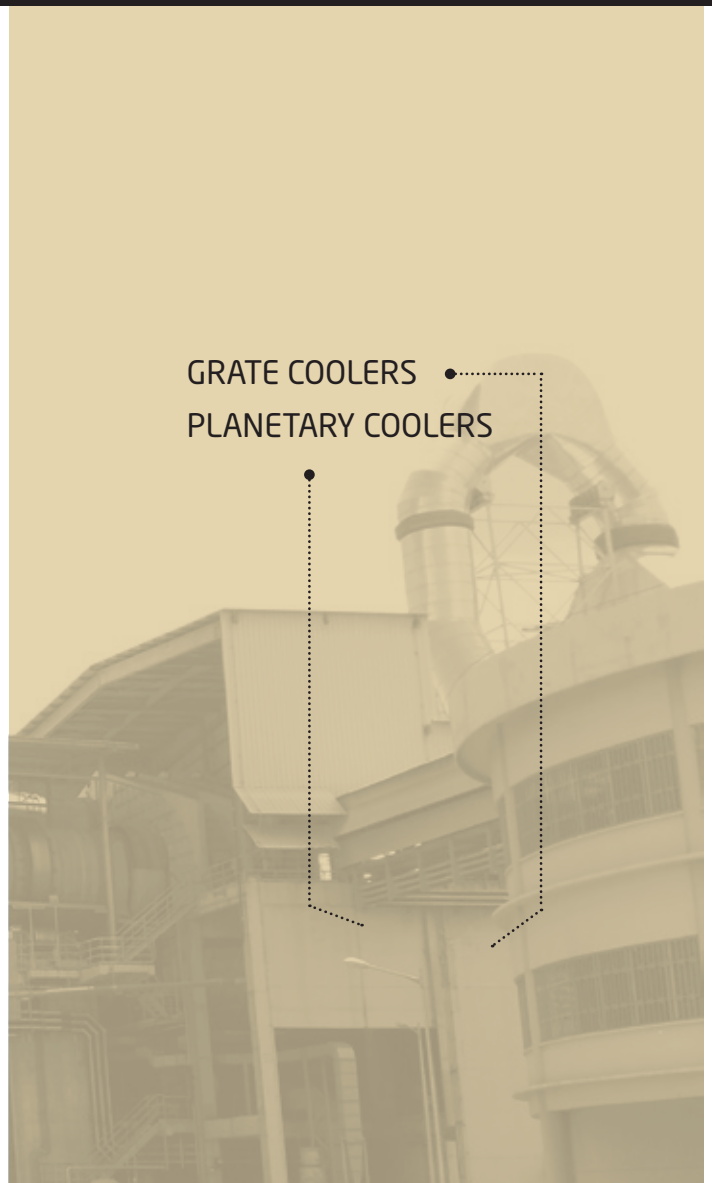


03 | AREA COOLER

KILN OUTLET
SECTORS



GRATE COOLERS
PLANETARY COOLERS



01

PRE-HEATER AREA

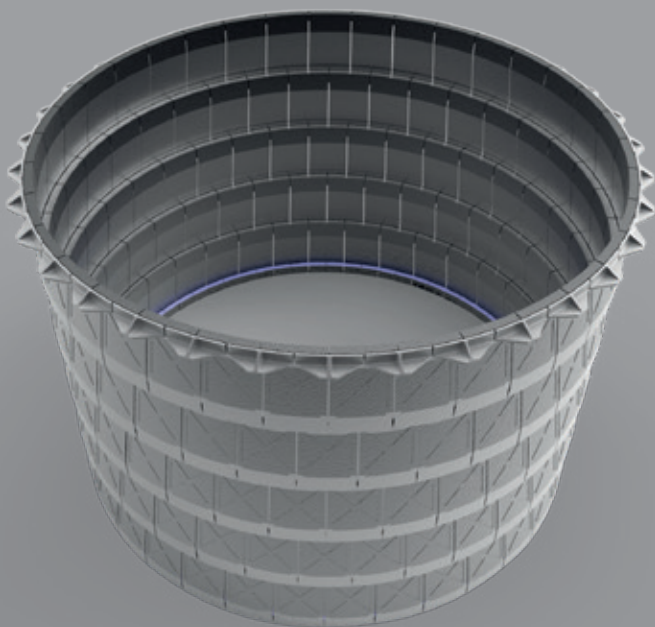
DIP TUBES

Dip tubes are assemblies subjected to **high temperatures and chemical attack**, according to quality and type of fuel used.

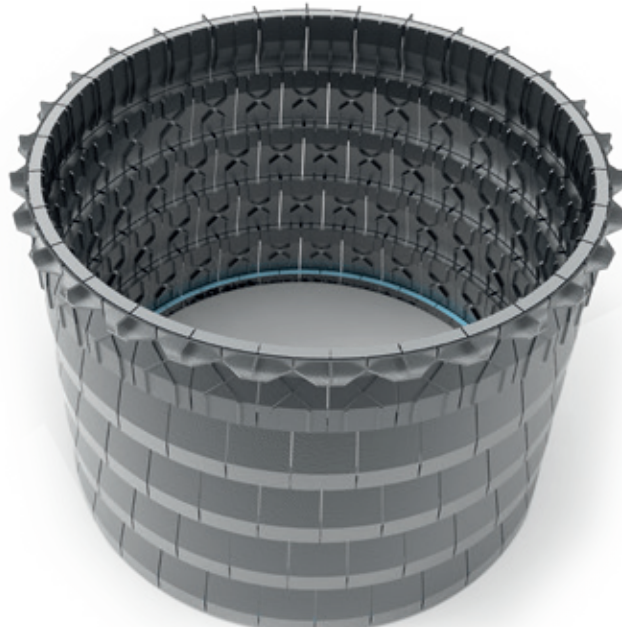
Selecting the right steel is critical in their manufacture, according to the specific working conditions of the pre-heater tower.

ESTANDA is **specialised** and supplies **complete dip tubes**, in different qualities of heat-resistant steel, according to client drawings, or improved and reinforced designs, according to the critical aspects of each facility.

With the aim of **greater lifecycle**, by complete annual production campaigns.



Standard design.



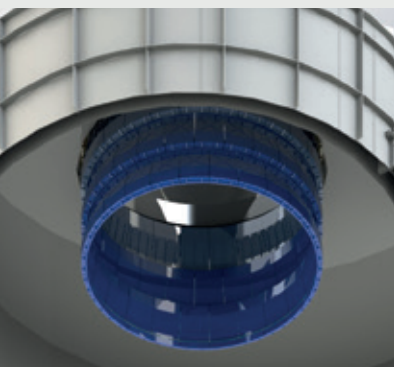
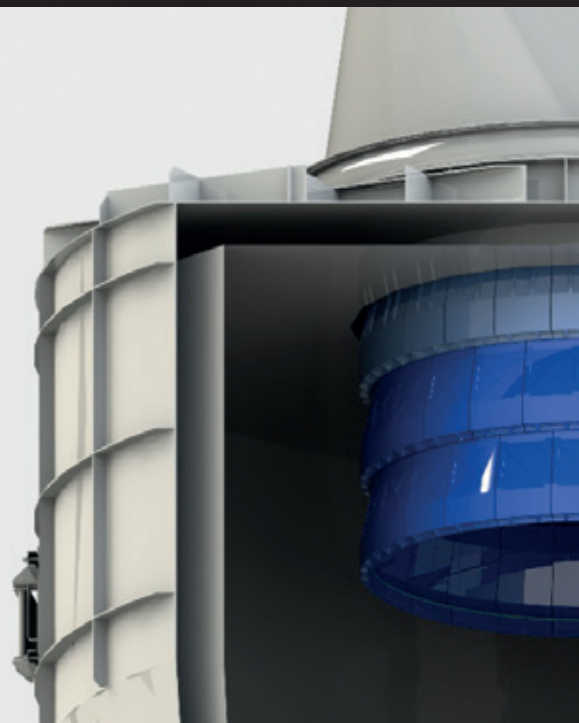
Reinforced ESTANDA design.



PRE-HEATER TOWER

ESTANDA DIP TUBES

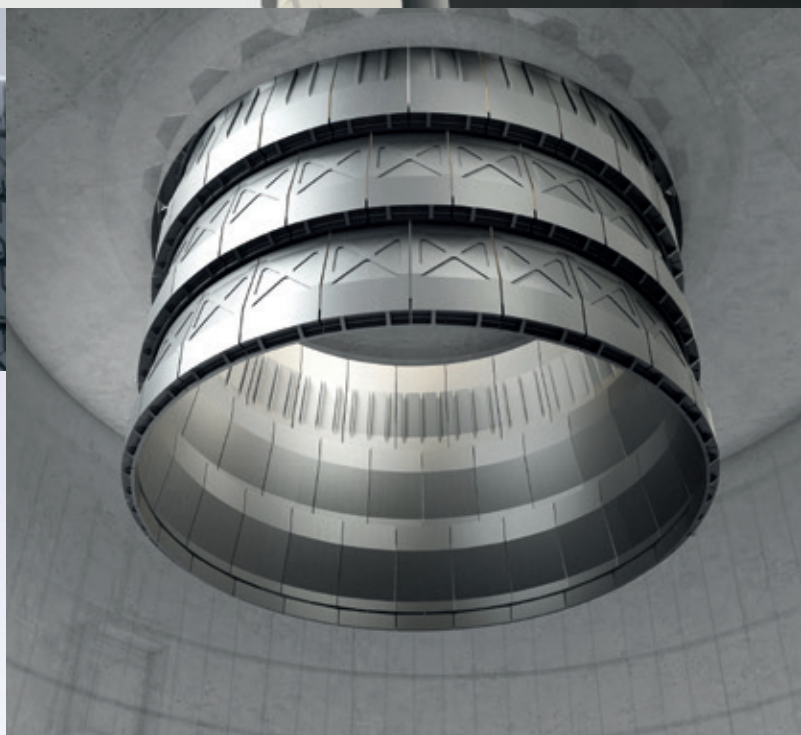
- **DESIGN.** According to client drawings or optimised and customised drawings, for improved performance.
- **ESTANDA FEKA heat-resistant steel** of choice, depending on the **temperature conditions** (up to 1.000-1.100 °C), and **chemical attack** (presence of chlorine, sulphur and other). Experience with **alternative fuels**.
- **SUPPLY** of complete dip tubes and with **pre-assembly** in our facilities, and **final supervision** in our clients' facilities to ensure optimum project delivery.
- **AFTER SALES SERVICE** and follow-up of performance.



ESTANDA improved design.



Detail of the fixing and reinforcement system of the plates.

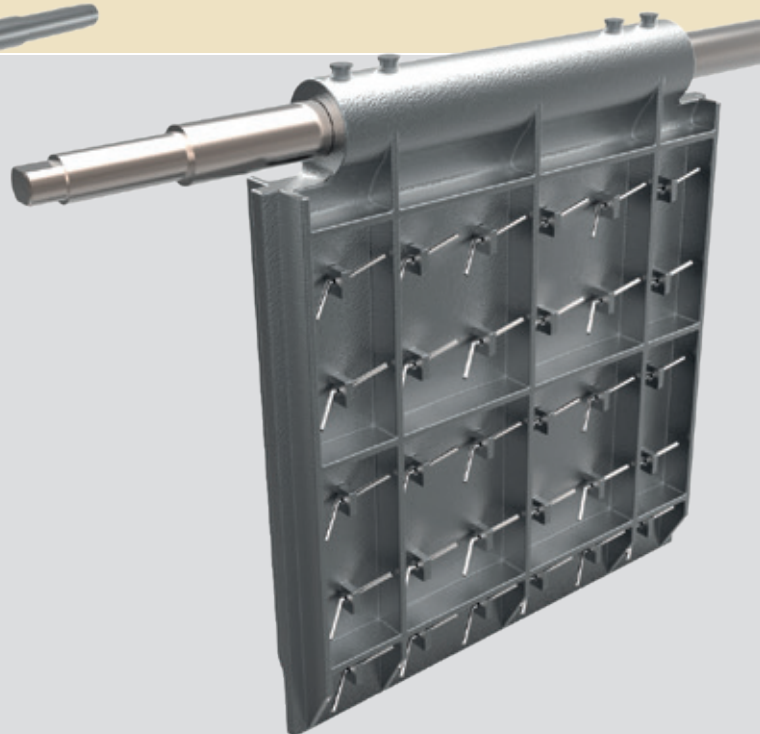
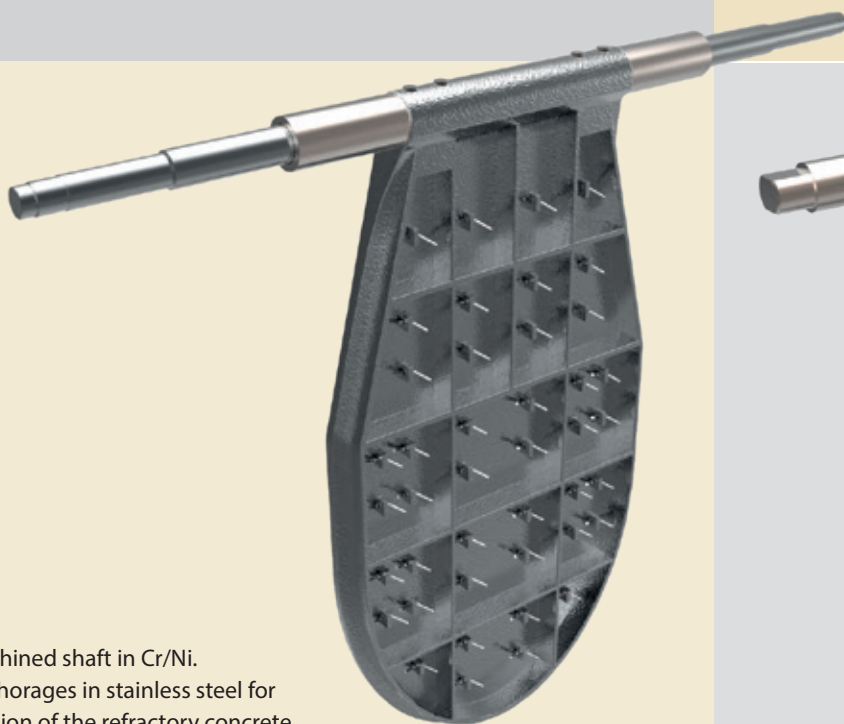
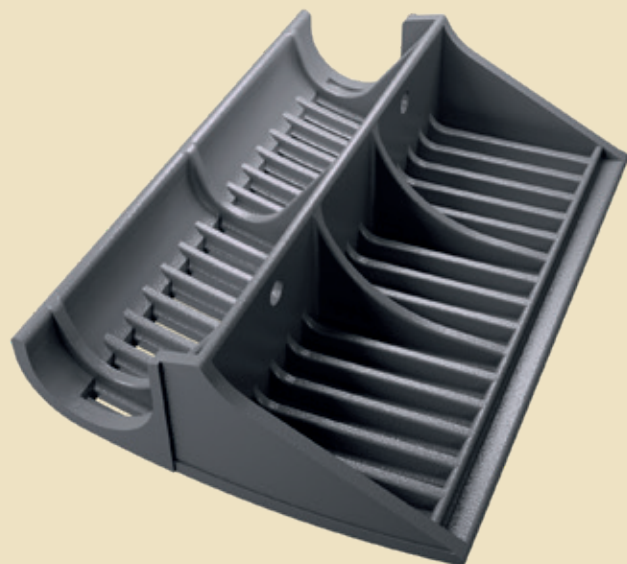


01

PRE-HEATER AREA

FLAP VALVES, DIVERTING GATES, AND GRATE PLATE COMPONENTS

Inside the pre-heater tower, ESTANDA also supplies the **different types of flap valves, diverting gates, and grate plates** currently on the market.

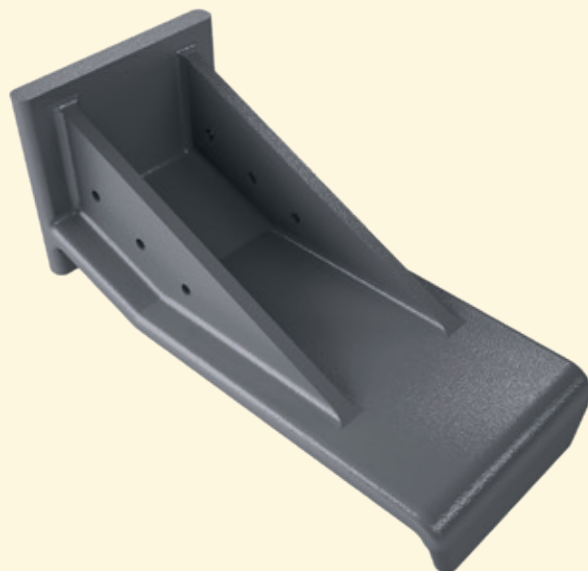
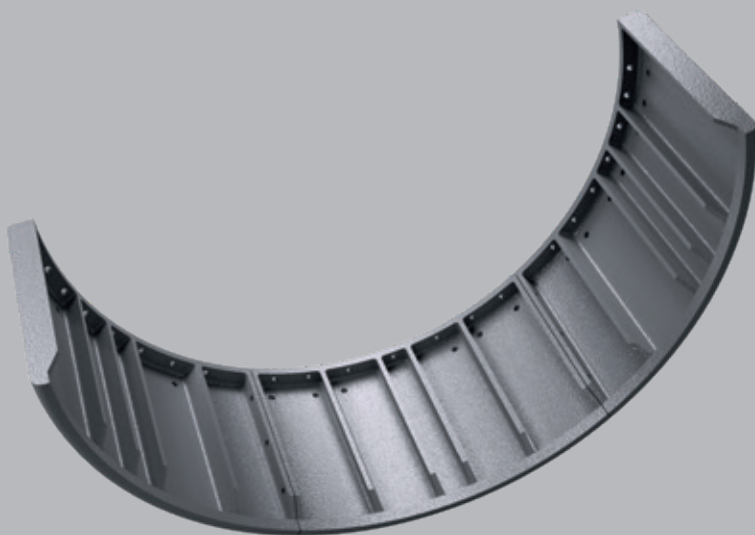
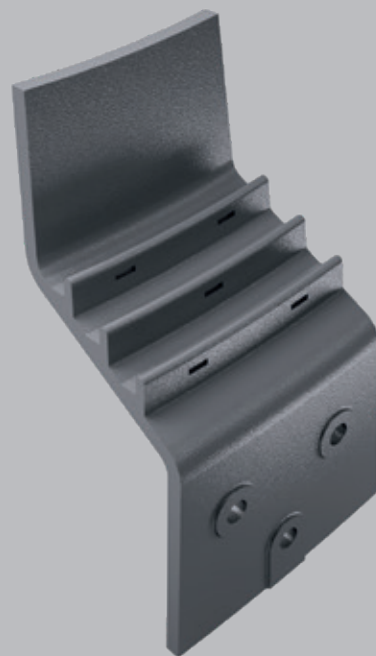


Machined shaft in Cr/Ni.
Anchorages in stainless steel for
fixation of the refractory concrete.



02 KILN AREA INLET SECTORS

ESTANDA supplies the **cast parts** that make up the kiln's inlet sectors, in the different shapes and **existing designs on the market**, as well as other **custom designs tailored to the client's needs**.



Kiln inlet housing sectors.

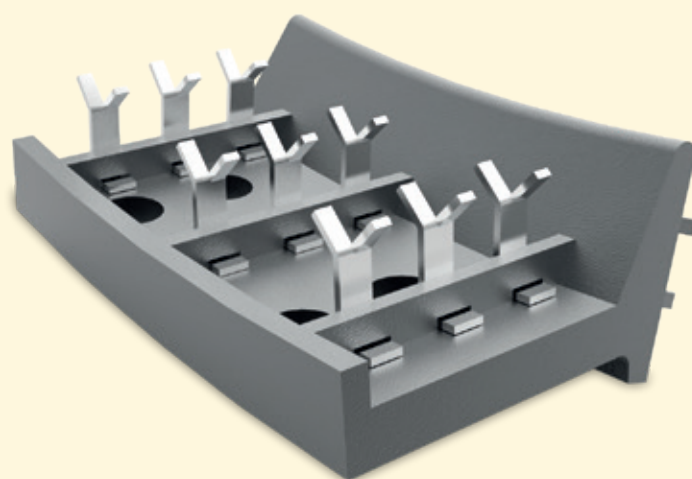
02

KILN AREA

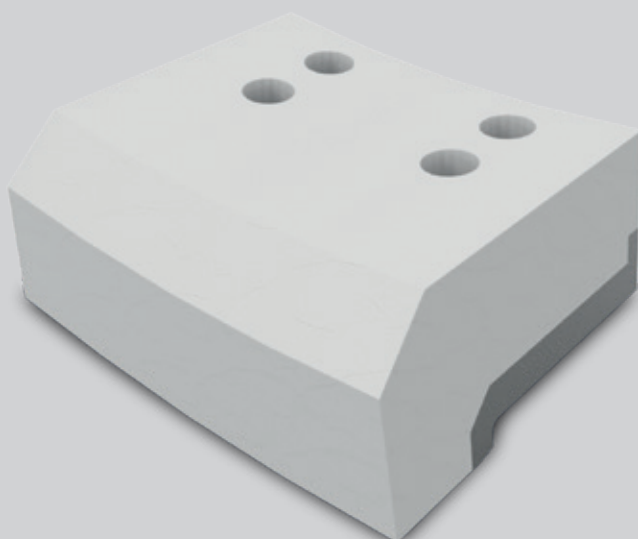
OUTLET SECTORS

ESTANDA supplies the **different cast parts and designs**, in heat-resistant steel, that make up the kiln's outlet sectors.

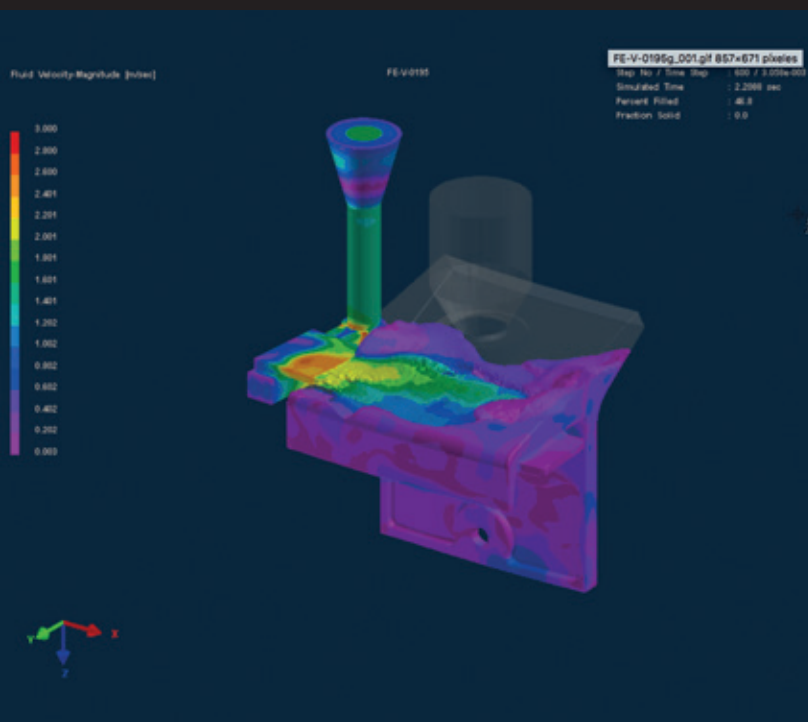
We also supply **subassemblies** of outlet sectors with **special refractory concrete**, **pre-assembled** in our facilities.



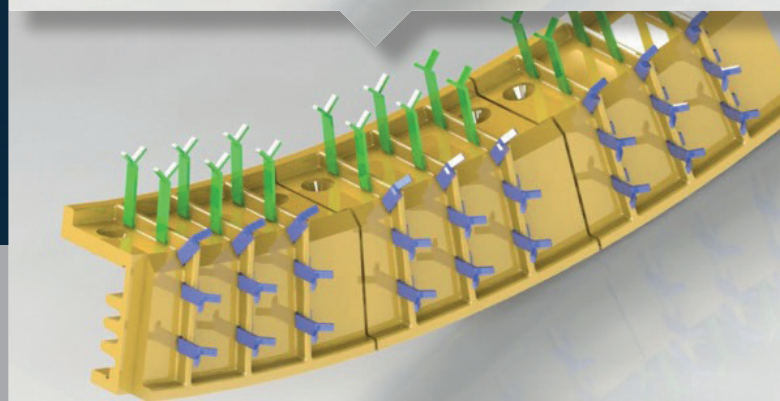
Detail of anchorages in stainless steel on cast part.



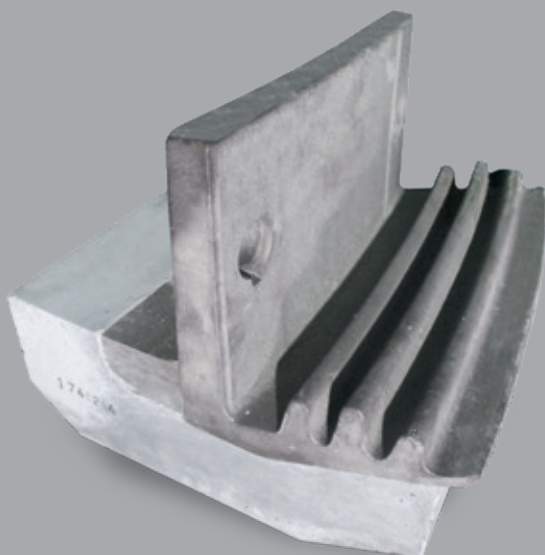
Incorporation of the refractory concrete.



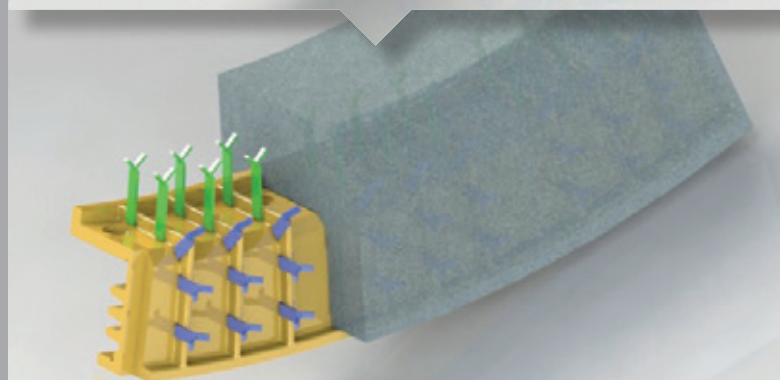
Detail of cast sector



3D detail of sector with anchorages for better fastening of the refractory concrete.



Subassembly pre-assembled in ESTANDA of outlet sector with refractory concrete.



Detail of complete subassembly of casting with refractory concrete.

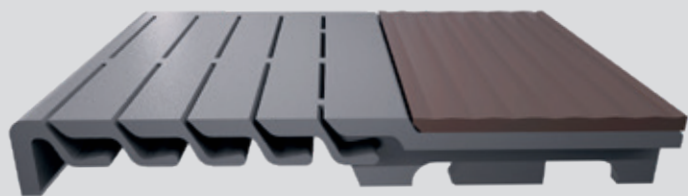
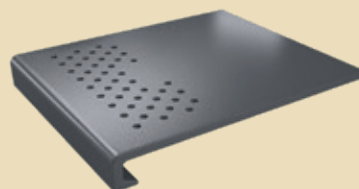
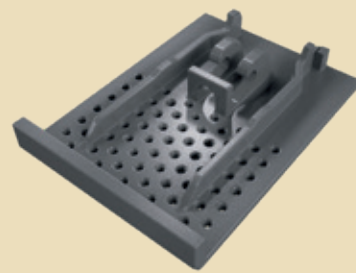
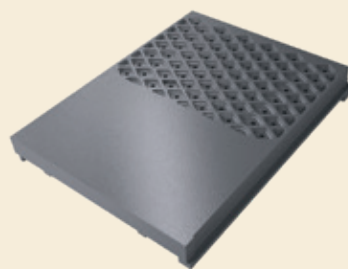
03

COOLER AREA

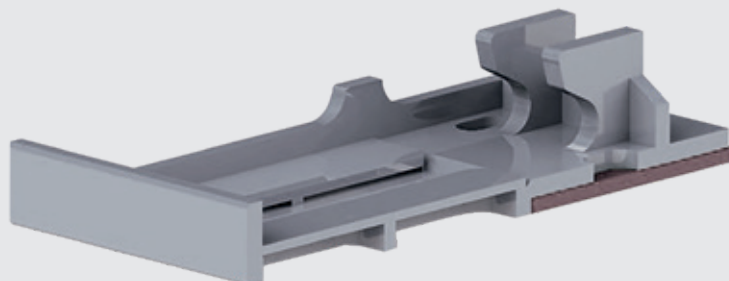
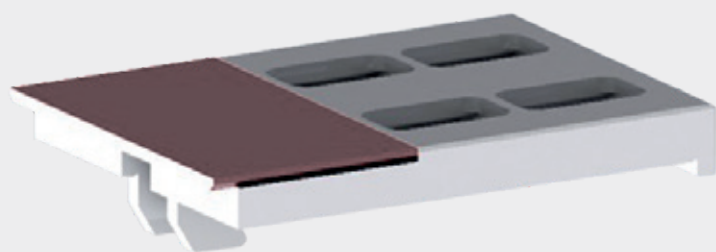
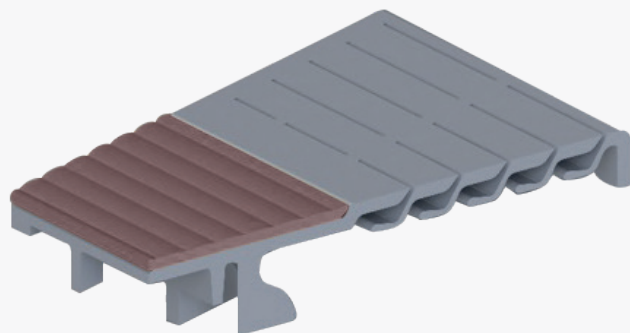
GRATE COOLERS

ESTANDA manufactures **components** for all different types and **designs of grate coolers** currently on the market.

We manufacture these components **according to client drawings** or with **design improvements, according to the specific needs** of each client for its facilities.



Grate cooler plate design with welding retrue.



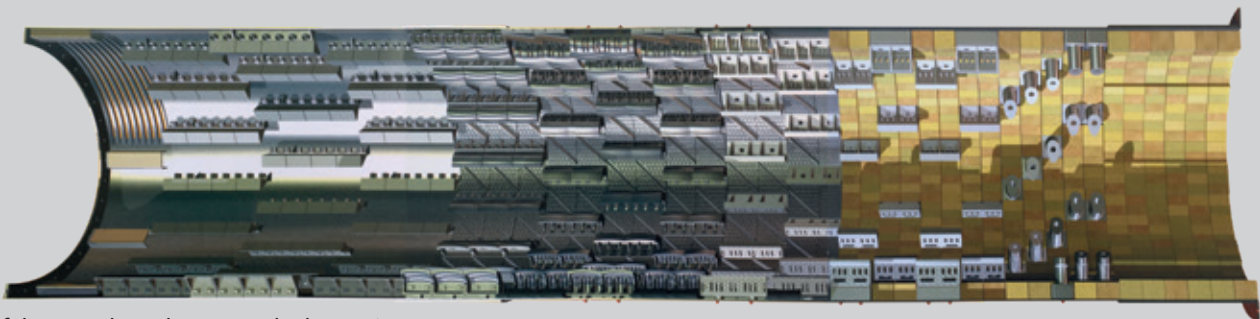
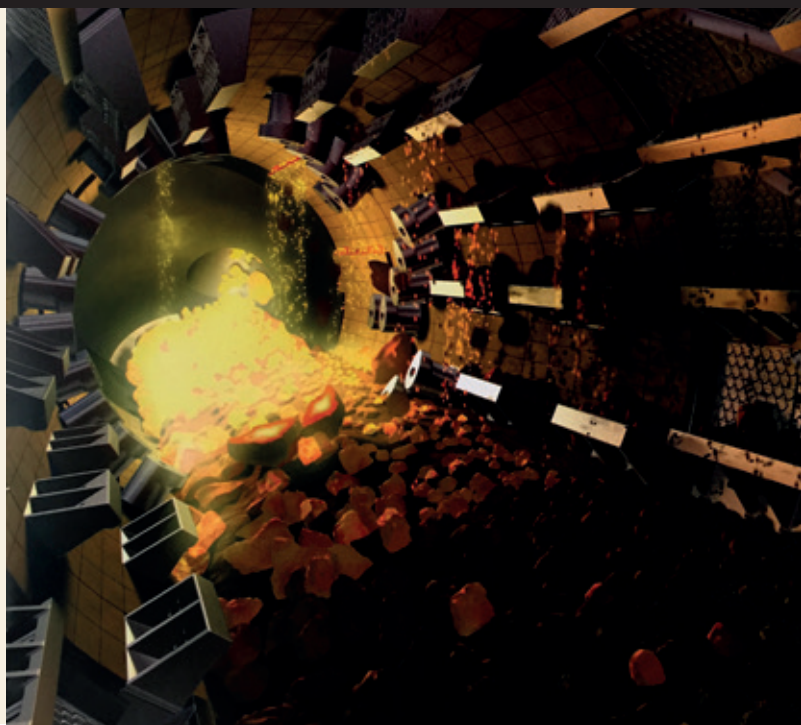
03

COOLER AREA

PLANETARY COOLERS

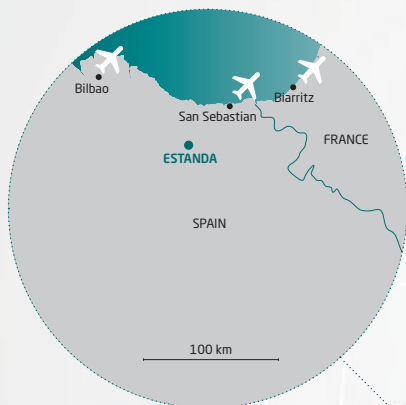
In ESTANDA we are **experts** in the manufacture and supply of **turnkey projects in planetary coolers**.

To date we have **numerous successful installations** of this type of cooling technology in different clients around the world.



Inner detail of the complete planetary tube by sections.





CERTIFIED COMPANY:



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