



Enabling progress

Corporate presentation




Enabling



progress







A wind turbine running at full capacity producing clean energy, a train gliding along its rails at high speed or the robustness and precision of a high-performance car engine are examples of what we make possible thanks to the quality of our work.

At Insertec we want to contribute to the development of human activity and the progress of our society.

We work in the world of industrial heat treatment.

We manufacture furnaces and refractory products which are essential for industries as diverse as renewable energy, transportation and the automotive industry.

Our sector is fundamental in the development of multiple applications, generating the social welfare that we enjoy today.

That is why we are proud of our work.

Proud of our commitment to our sector.

Proud of the effort and tenacity with which we approach each project, and the commitment of our employees to the company, our customers and suppliers.



Insertec commitment

The conviction that the way of approaching certain industrial processes could be improved is what brought the founding partners together when they decided to create Inserterec in 1980.

At that time, it was necessary to put the customer at the centre of the equation and create a company that, with a vision of the future, provided the right solutions for every occasion, even above and beyond its immediate profit.

That is what we still believe in.

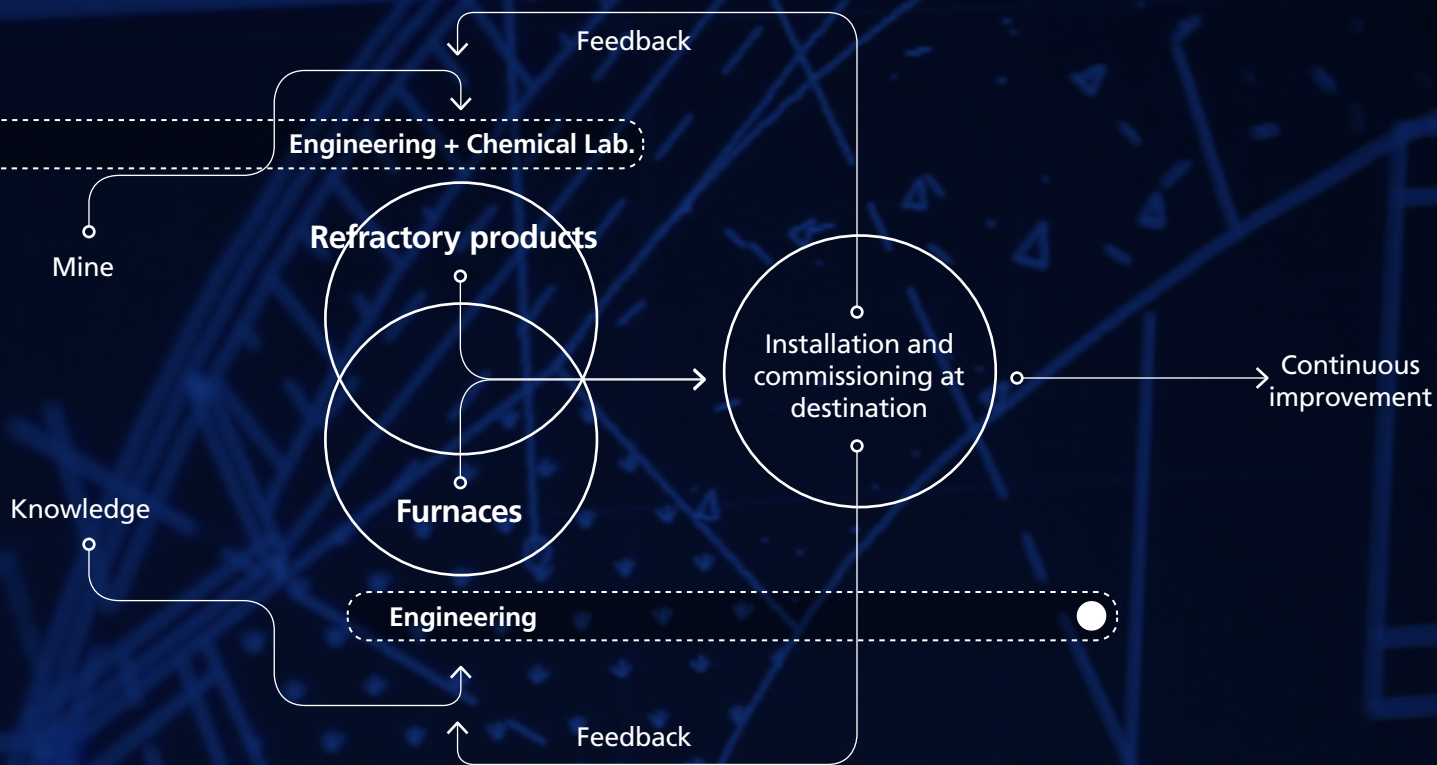
That is the nature of Inserterec and our promise:

At Inserterec, we are committed to providing innovative solutions in the industrial heat treatment sector, designing and manufacturing custom-made industrial furnaces and refractory products, and establishing long-lasting relationships that exceed the expectations of our partners.

Today, this philosophy is very rooted in our DNA and we remain true to these principles.



Integral production process



Our expertise in engineering and manufacturing furnaces help us produce better refractory products, and our deep knowledge of refractory products helps us design better furnaces.

A competitive advantage that makes us the ideal travel companion for many projects. Over time, this is one of the aspects that is most valued by our customers.

In addition, we have a first class chemical laboratory, in which we carry out analyses and tests that ensure the suitability of the solutions offered.

We also collaborate with universities and other specialist laboratories, allowing us to respond to the most demanding situations.

Another crucial aspect that separates Insertec from our competitors is our integral production process. Insertec has the ability to control all facets of the manufacturing of its products. From the extraction of raw materials for refractory products in our own mine to the installation and commissioning of the equipment at the customer's premises.

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Insertec in the world

Intertec



Going beyond also means going international.

Intertec has its headquarters in the metropolitan area of Bilbao. The Basque Country has established itself as a world leader at a technological and industrial level and is very well connected with the rest of the world through a port and an airport. We have subsidiaries in 8 countries covering the major markets and our many sales offices are spread all over the world. Intertec currently has a global workforce of more than 250 people.

Our international structure is made up of the following subsidiaries:


INSERTEC INDUSTRIAL, in Tultitlán, Mexico
INSERTEC MEXICO, in Monterrey, Mexico
IFI INSERTEC FORNOS INDUSTRIAIS, in Sao Paulo, Brazil
INSERTEC REFRÁTRIOS DO BRASIL, in Sao Paulo, Brazil
INSERTEC ITALIA, in Turin and LA FILK ITALIANA both in Italy
INSERTEC REFRACTORY SOLUTIONS (ZHENJIANG) CO. LTD., in Zhenjiang, China
INSERTEC RUS Ltd., in Russia
SANKEN INSERTEC EUROPE, Joint Venture with SANKEN SANGYO in Japan.

We have achieved a greater international presence through our strategic alliances.

Our partners around the world are:

SANKEN SANGYO, a leading manufacturer of industrial furnaces in Hiroshima, Japan.
WAHL REFRACTORIES, a specialist in prefabricated parts in Ohio, USA.

Preparing for the future




Our firm commitment to progress makes us look ahead and prepare for the future.

Always aware of the impact that industrial activity has on the planet, Insertec has made a vital commitment to sustainability and social responsibility to make sure that we leave a better world for future generations.

In this regard, we have spent years researching the production of regenerative refractory products, which may give a sustainable response to future needs or the most socially responsible companies.

We also manufacture different types of industrial furnaces for industrial recycling processes.



Our slogan "enabling progress" captures the values that make us special in a positive and global way, as well as the responsibility and commitment that allow us to move forward.



Enabling



progress

Product catalogue:

- Industrial furnaces:

- Aluminium Foundry: page 16
- Aluminium Recycling: page 18
- Heat Treatment: page 20

- Refractory Products:

- Iron and Steel Foundry: page 22
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- Steelworks, Cement Plants, Frits and Heat Treatment: page 24

Industrial
Furnaces\

Aluminium Foundry

Insertec designs, manufactures and installs furnaces and refractory products for the aluminium foundry sector.



\ MELTOWER®



\ MELTOWER®



\ MELHOLDER® "in-Line"



\ DMAE dosing furnace



\ T6 continuous heat treatment

Applications (treatments):

- . Melting and holding.
- . Heat treatment.

Industrial sector:

- . Die casting.
- . Low pressure casting.
- . Gravity in permanent mould or sand.

Foundry processes:

- . Melting and holding.
- . T4, T5, T6, T7 heat treatment...

Melting furnaces:

- . MELTOWER® central, tilting or static melting unit.
- . MELHOLDER® melting and holding for each casting cell.
- . "In-line" process for continuous melting and treatment of liquid metal (degassing, modifying and filtering).
- . Combined furnaces for melting and alloying, with MELTOWER®, dry hearth and ALUSWIRLER® submerged vortex.

Holding furnaces:

- . RMAE, holding with a casting pit and radiant dome.
- . SMAE, with casting pit and submerged vertical resistors.
- . IMAE, with casting pit and horizontal resistors.
- . DMAE, dosing by pressure and time.

Heat treatment furnaces:

- . T5 with transportation chain without baskets, continuous process.
- . T5 and T6 roller hearth with or without a basket, continuous process.
- . T4, T5 and T6 chamber furnaces, batch process.

Industrial
Furnaces\

Aluminium Recycling

Insertec designs, manufactures and installs furnaces and refractory products for the aluminium recycling sector.



\ Reverberatory furnace



\ Reverberatory furnace, side well in refinery



\ FARD rotary furnace



\ ALUSWIRLER®



\ IDEX®, 22 tph.

Applications (recycling):

- . Scrap, baled profiles.
- . UBC, chips, etc.
- . White and black dross.

Industrial sectors:

- . Secondary recycling.
- . In-house foundry recycling.

Furnace types:

- . ALUSWIRLER® melting chips in submerged vortex process.
- . Reverberatory furnace with open side pit.
- . FARB tilting rotary furnace for melting scrap and dross.
- . Multi-chamber reverberatory furnaces with dry hearth, up to 100 tons.
- . Melting and holding.
- . Static and tilting.

Auxiliary equipment:

- . Loading machines.
- . Presses for hot dross.
- . Chip dryer and delacquering systems.
- . Oxy-gas and regenerative combustion systems.
- . Recirculation systems with mechanical or electromagnetic pumps or porous plugs.
- . Liquid metal transportation ladles.
- . Automatic ingot lines.
- . SCADA monitoring systems.

Industrial
Furnaces\

Heat Treatment

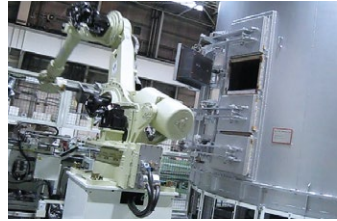
Insertec designs, manufactures and installs furnaces for heat treatment, forging and heating.



\ Chamber furnace with
loading machine



\ Vacuum furnace



\ Rotating hearth furnace



\ Pit furnace



\ Bogie hearth furnace



\ Integrated quenching tank



\ Continuous belt furnace



\ Aluminium coil annealing furnace

Applications (treatments):

- . Normalising.
- . Austenitising.
- . Hardening.
- . Tempering.
- . Annealing.
- . Stress relieving.
- . T4, T5, T6 aluminium.
- . Cementing.
- . Nitriding.
- . Carbonitriding.
- . Nitrocarburising.
- . Welding.
- . Brazing.
- . Vacuum.

Industrial sectors:

- . Automotive industry.
- . Metallurgy.
- . Aeronautics.
- . Wind energy and petrochemical.
- . Tools and screws.
- . Bearings and gears.

Furnace types:

- . Continuous and intermittent.
- . In an open, inert or controlled atmosphere.
- . Temperatures from 100°C to 1250°C.

Auxiliary equipment:

- . Quenching tanks.
- . Cooling stations.
- . Loading machines.
- . Loading / unloading tables.
- . Atmosphere generators.
- . Washing machines.
- . Dosing and weighing devices.
- . Part accumulators.

Iron and Steel Foundry

The increasingly demanding production system means that our customers have less downtime, which requires continuous development of our products - more resistant products, with shorter drying curves.



Our experience in this sector is backed up by more than 35 years supplying 70% of the national iron foundries and a large number of international foundries.

Types:

Dry materials:

- . CUARSIL: Silica.
- . INSETAG: Alumina magnesia.
- . INSEMAG: Magnesia.

Plastic materials:

- . INSEPLAST

Gunning materials:

- . INSEGUN

Concretes:

- . ULTRALOC
- . INSELOC
- . INSECAST
- . BERELOC - Self flowing

Applications:

- . Coreless induction furnaces.
- . Channel-type furnaces.
- . Cupola furnaces.
- . Rotary furnaces.
- . Treatment and transportation ladles.
- . Automatic casting units.



\ Coreless furnace



\ Channel-type furnace



\ Iron ladles



\ Steel ladles

Aluminium Foundry

At **Insertec**, in addition to a wide range of refractory materials, we design new precast lining assembly systems. A system that fulfils the most demanding production processes.



Refractory materials:

Complete linings and repair of melting holding and dosing furnaces, lounders and transportation ladles, supervision and preliminary studies.

- . ALULOC
- . CARBOLOC
- . EROLOC
- . INSELOC
- . SIFCA®

Prefabricated parts/precasts:

- . Door frames
- . Impact plates
- . Ladle bases
- . Submerged cones
- . Complete furnaces
- . Furnace ramp



\ Door frames



\ Complete reverberatory furnace lining in refractory concrete



\ Precast lining



\ Furnace ramp



\ Rotary furnace in prefabricated parts

Steelworks, Cement Plants, Frits and Heat Treatment



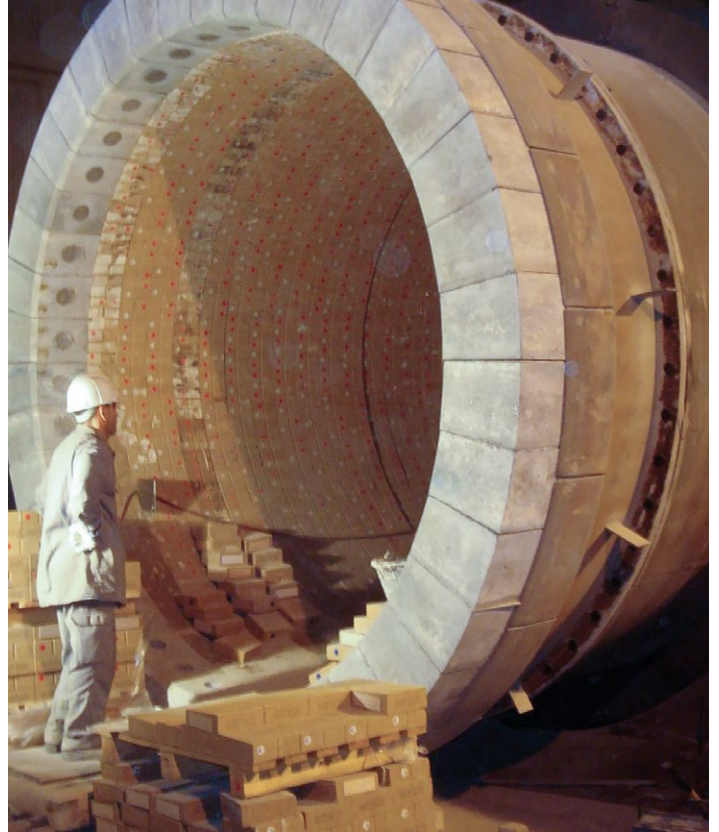
Steelworks:

Concretes and refractory materials:

- . Monolithic materials for arc furnaces.
- . Refractory products for troughs and ladles.
- . Filler spout for EBT, BOTALITE.

Prefabricated parts/precasts:

- . Impact plates.
- . Deltas for arc furnaces.
- . Blocks and lips for caps and ladle.



Cement Plants:

Concretes and refractory materials:

Cast, vibrated or projected...

Prefabricated parts/precasts:

- . Nose ring.
- . Blaster nozzles.
- . Valves / TAD.
- . Impact plates.
- . Thermocouple sheaths.
- . Special parts from drawings.



Frits and enamels:

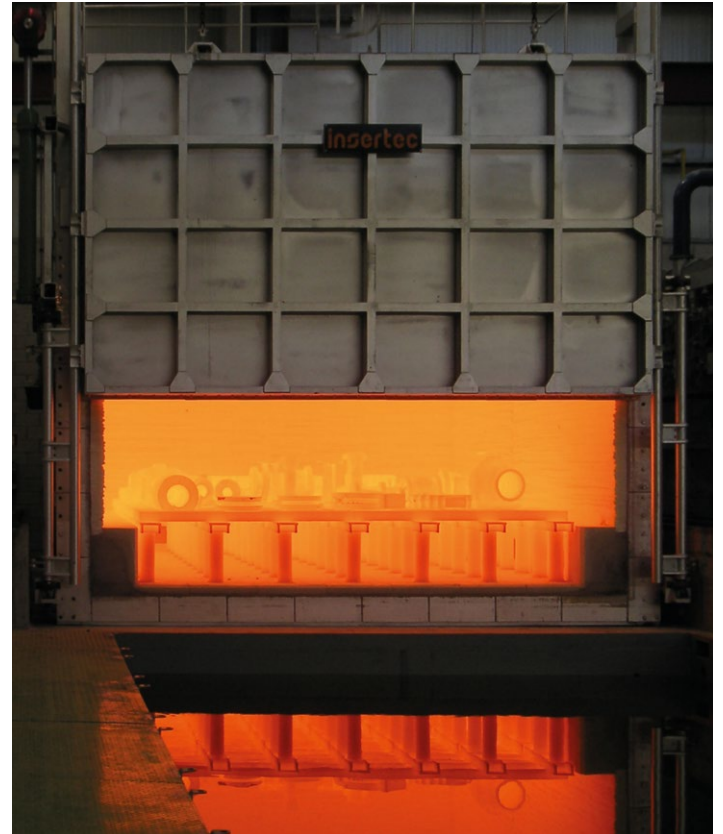
Ceramics and glass.

Refractory concretes:

Full range in applications for:
Furnace for frits, enamels, glass porcelain and ceramics.

Prefabricated parts/precasts:

- . Casting spouts.
- . Dosing balls.
- . Special parts from drawings.
- . Burner blocks.
- . AZS bricks



Heat treatment:

complete line of linings for heat treatment furnaces.

Prefabricated parts/precasts:

- . Buttresses.
- . Frames.
- . Hearths.
- . Support beams.

Refractory materials:

- . Low cement concretes: INSELOC 40 TO, 50 TO.
- . Average cement content concrete: EROLOC 80 SR.
- . Insulating refractory concretes: INSELITE 1100, GUNLITE 1200.
- . Ceramic fibres.
- . Insulating plates.

Studies for energy performance improvements:

- . Thermography.
- . Energy-efficient.



Enabling progress

insertec
Furnaces & Refractories





Insertec Worldwide

INSERTEC HEADQUARTERS:

\ Etxerre Kaminoa 21 \
48970 \ Basauri \ Bizkaia \ Spain

Tel.: +34 - 944 409 420 (Furnaces)
+34 - 944 409 450 (Refractories)

insertec@insertec.biz

WORLDWIDE:

BRAZIL:

\ Insertec Refractorios do
Brasil Ltda.
Piracicaba \ S o Paulo \ Brazil

\ IFI Insertec Fornos
Industriais Ltd.
Piracicaba \ S o Paulo \ Brazil

CHINA:

\ Insertec Refractory
Solutions
(Zhenjiang) Co., Ltd.
Zhenjiang \ Jiangsu \ China

IRAN:

\ Arian Sanat Engineering
Solutions Co.
Tehran \ Iran

ITALY:

\ Insertec Italia, Srl.
Torino \ Italy

MEXICO:

\ Insertec Industrial, S.A. de
C.V.
Tultitl n \ Edo. de M xico \
Mexico

\ Insertec M xico, S.A. de C.V.
Monterrey \ Nuevo Le n \
Mexico

RUSSIA:

\ Insertec RUS Ltd.
Moscow Region \
Chechov District \ Russia