

Railway



+ WE CAST STRONG CONNECTIONS +

FERESPE in the Railway Industry

We are positioned in a small and medium series niche market, exporting about 90% of what we produce.

FERESPE focuses on the production of technical parts for high wear applications, using the following alloys:

- Medium and Low Alloyed Steel with high strength, including applications at low temperatures and low residuals elements for better weldability and longer life.
- Austenitic, Martensitic and Duplex Stainless Steels, for specific applications.

The European Railway Industry has registered a strong evolution, dictating trends and parameters worldwide. It plays a key role in creating a sustainable future for transports in Europe – it contributes to achieving key policy objectives such as work on climate change, tackling congestion, creating an economic growth, re-industrialization on the European continent and mobility of citizens of all ages and social backgrounds.



Porto, Portugal

FERESPE'S Certifications and Qualifications

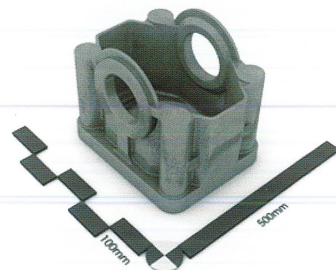
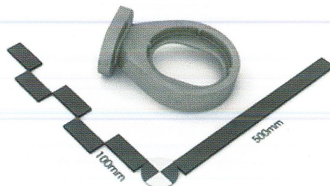
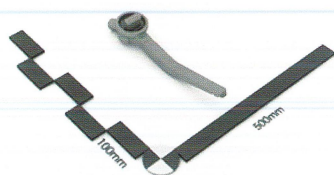
As a result of the long experience of supplying sand castings, FERESPE has the knowledge on several standards and codes.

FERESPE know-how will support your company within metallurgical subjects, developing solutions from scratch to cast. In full partnership. We guarantee your company distinctive and qualified solutions.

DNV-GL	Certifies FERESPE Quality Management System according the standard ISO 9001:2015.
DB	Certifies FERESPE as an approved Manufacturer Related Product Qualification for the Fabrication of Products for Railway Vehicles.
TUV NORD	Certifies FERESPE to perform welding of railway vehicles and components acc. to EN 15085-2
DNV-GL	Certifies that FERESPE's management system is conform to the Environmental Management System standard ISO 14001:2015.

Casting Components for Rolling Stock

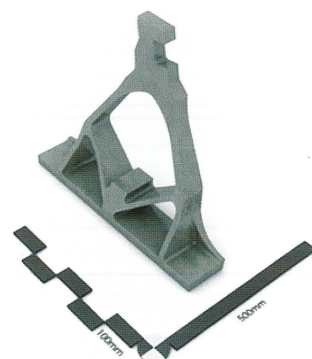
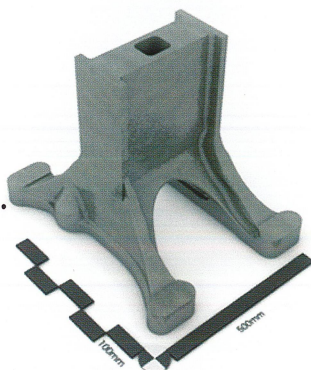
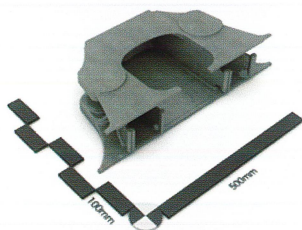
Couplers



MECHANICAL PROPERTIES

Yield Strength (MPa) **Min 550** Tensile Strength (MPa) **700/850** Elongation (%) **Min 10** Impact Test at -29c° (J) **Min 31**

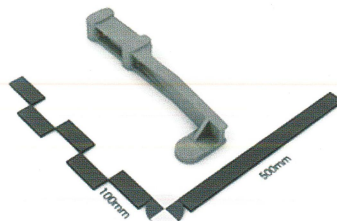
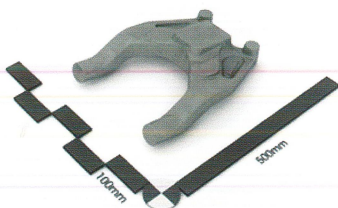
Bogies



MECHANICAL PROPERTIES

Yield Strength (MPa) **Min 450** Tensile Strength (MPa) **600/750** Elongation (%) **Min 16** Impact Test at -50c° (J) **Min 35**

Breaking Systems

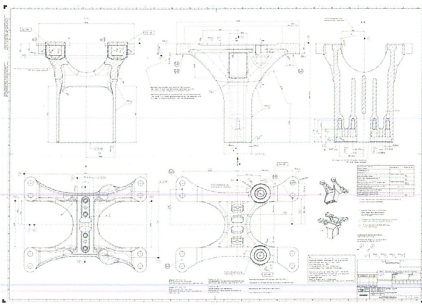


MECHANICAL PROPERTIES

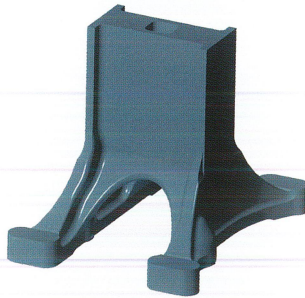
Yield Strength (MPa) **Min 600** Tensile Strength (MPa) **750/900** Elongation (%) **Min 15** Impact Test at -29c° (J) **Min 27**

ALWAYS AHEAD

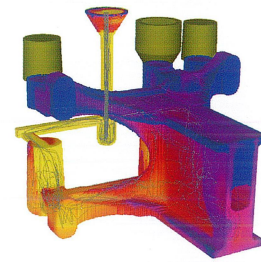
Product Engineering and Quality Control



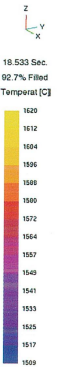
CAD



3D MODELLING



SIMULATION OF
MOULD FILLING



FERESPE has a wide customer base throughout the production chain of this industry, producing components, namely for wagons, bogies – structural elements, brake holders, motor supports and spring supports, car bodies, coupling systems, calliper brake systems, etc.

To fulfill Quality Requirements for the Railway Industry FERESPE is constantly seeking for improvements in terms of material properties and manufacturing procedures. To support this pro-active attitude, FERESPE has built solid relationships with Universities and Technological Centers.

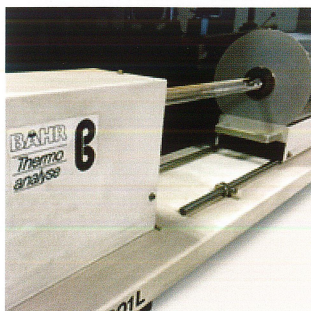
FERESPE is able to perform Non-destructive testing (PT, MT, UT, and Radioscopy) in-house with qualified inspectors according SNT-TC-1A and EN ISO 9171:2012. We are also able to subcontract activities for PT, MT, UT and RT with qualified inspectors.



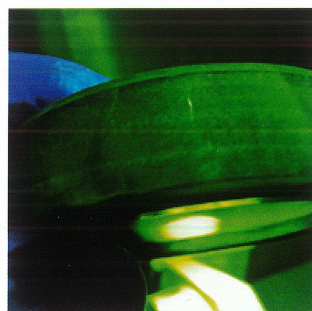
PHOTOMETRIC 3D SCANNING
DIMENSIONAL CONTROL AND REVERSE ENGINEERING



DIGITAL X-RAY INSPECTION



DILATOMETRY



MAGNETIC PARTICLE
INSPECTION



LIQUID PENETRANT
INSPECTION



CHEMICAL ANALYSIS

RAILWAY SOLUTIONS

ALWAYS AHEAD

Product Engineering and Quality Control

The Destructive Testing we are able to perform in-house are tensile test, impact test, hardness test and micrographic examination. If required, the destructive tests can be subcontracted to Accredited Laboratories according EN ISO/IEC 17025:2005, with which we have a long relationship.

For the repairs by welding operations FERESPE has qualified welders according EN9606-1 and ASME IX and Qualified welding procedures for the relevant materials according EN11970, EN ISO 15614-4 and ASME IX.

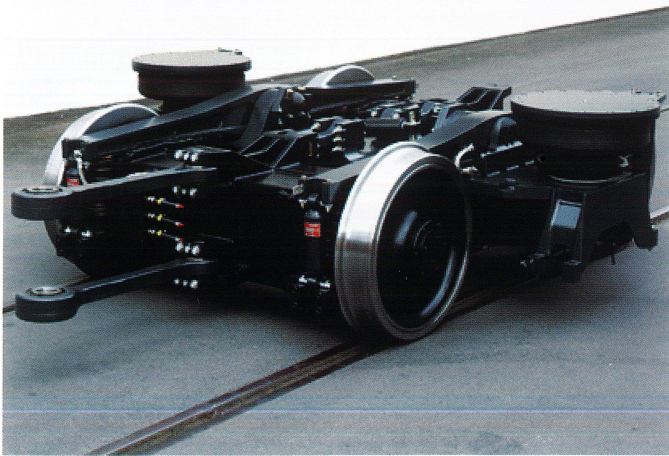
FERESPE has got a full range of medium and low alloy steels with low residual elements for better weldability and longer life as well as materials with high strength available for applications at very low temperatures.

Observations:

With our range of high strength materials, weight of the train can be reduced.

As well, with our range of materials for low temperatures, we can use steel castings in very cold areas of the globe.

The high performance of FERESPE castings is achieved with our special range of steels with low content of residual elements, improving their weldability and life.



FERESPE produces Railways Steels Casted components for bogies, couplers and car bodies for over 20 years. Our reputation for providing safe, reliable and in time deliveries is well known throughout our customers. FERESPE's customers high satisfaction levels represent a continuous effort in which we would like to include your company. Just try our expertise. We offer broader solutions to meet your goals.

WWW.FERESPE.PT



+ WE CAST STRONG CONNECTIONS +

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