



PROTOTYPING AND THERMAL TESTING LABORATORY

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MEMBER OF
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& TECHNOLOGY ALLIANCE



PROTOTYPING AND THERMAL TESTING LABORATORY

The Prototyping and Thermal Testing Laboratory is a cutting-edge international premise that allows testing materials and components at high temperature in a controlled environment as well as verifying their behavior on a scale relevant to the industry, thus facilitating the validation of new products or components.

The 110m² facility houses two thermal loops with automated management and continuous monitoring, one for oil and one for air, capable of handling fluids from 400 °C to 800 °C, in a wide range of flow rates. The loops are prepared to be able to insert the components under study, which are subjected to the pre-established conditions of temperature, flow, and pressure, obtaining real-time information on their behavior.



WHAT CAN WE DO?



- Test campaigns on components with air as a fluid up to 800°C.
- Test campaigns on components with oil as a fluid up to 400°C.
- Construction of thermodynamic models based on experimental results, which allows optimizing the design avoiding the over cost of the “trial-error.”
- Advice on improving the thermal design of components and industrial processes.

SERVICES

FOR WHO?



Steel industry



Foundry



Automotive



Forge



Ceramics



Chemistry



Petrochemical



Renewables



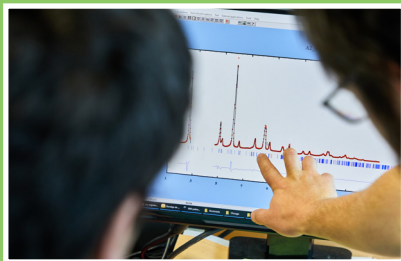
Food



Paper

INDUSTRIES

WE OFFER



**EXECUTION OF
COMPONENT TESTS**



**COMPONENT MODELING
BEFORE TESTS,
IN CONTRAST TO
EXPERIMENTAL TESTS**

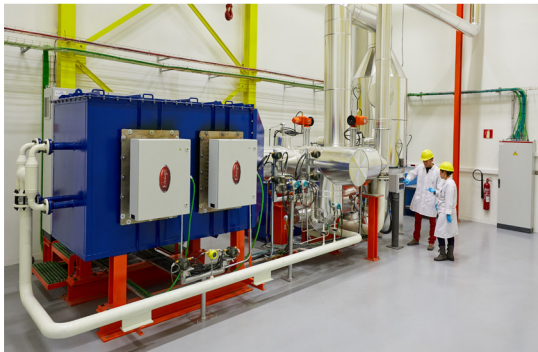


**ADVICE FOR THERMAL
IMPROVEMENT OF
COMPONENTS AND
INDUSTRIAL PROCESSES**

SOLUTIONS

EQUIPMENT & TECHNIQUES

HOW?



AIR LOOP

Hot air experimental facility, up to 800°C, with variable air flows, designed for testing systems and components for high temperature environments, such as high temperature steels, thermal storage units, insulation, etc.

OIL LOOP

The oil loop is an installation that can work with different heat transfer fluids such as heat transfer fluid. The objective is to test high temperature components and thermal storage systems for industrial processes and/or renewable energies.



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