SOLFITH2

New line of high-performance multicomponent fittings to enhance structural integrity in equipment for renewable energy generation plants.

DESCRIPCIÓN DEL PROYECTO - ZL-2024/00256

TUBACEX TAYLOR ACCESORIOS (TTA) is driving an innovation project focused on the design and development of a new line of seamless multicomponent fittings intended for green hydrogen and concentrated solar power plants.

In the context of the energy transition and growing demand for sustainable solutions, these components are key to ensuring system efficiency and safety, as they are exposed to extreme conditions of pressure, temperature, and corrosive environments.

The objective is to manufacture fittings with high structural strength, capable of withstanding cyclic loads, minimizing losses, and ensuring a long service life while reducing the carbon footprint. To achieve this, new materials will be investigated, advanced geometries developed, and innovative forging processes applied to eliminate welds and guarantee uniform thickness throughout the piece.

This project represents a strategic commitment by TTA to expand its catalog, strengthen its position as a technology provider, and open new markets in renewable energy. Additionally, it will contribute to environmental sustainability, generate qualified technical employment, and enable the company to advance cleaner and more efficient solutions for a lower-emission industry.

At TUBACEX INNOVACIÓN, development is underway for a new line of seamless fittings made of 347H material, designed to withstand extreme pressure, temperature, and corrosion conditions in green hydrogen and solar energy plants. The goal is to guarantee the long-term structural reliability of critical components subjected to severe loads and highly demanding environments.

TXINN's work includes the design and manufacturing of seamless elbows, selection of materials with optimized mechanical properties and corrosion resistance, and development of finite element models to predict in-service behavior. Additionally, the manufacturing process has been simulated and validated using FEM, alongside experimental testing and detailed analysis of the results.

CONSORTIUM

Coordinator:

- TUBACEX TAYLOR ACCESORIOS

Agent of the Basque Network of Science, Technology and Innovation (RVCTI):

- TUBACEX INNOVACIÓN
- AZTERLAN

A project supported by the European Union and the Basque Government

The project has received funding from the Basque Government and the European Union through the European Regional Development Fund 2021–2027 (ERDF).

- Total budget: €241,171
- Duration: 2024 – 2025

Europar Batasunak kofinantzatua

Cofinanciado por la Union Europea

TTA TUBACEX GROUP

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