

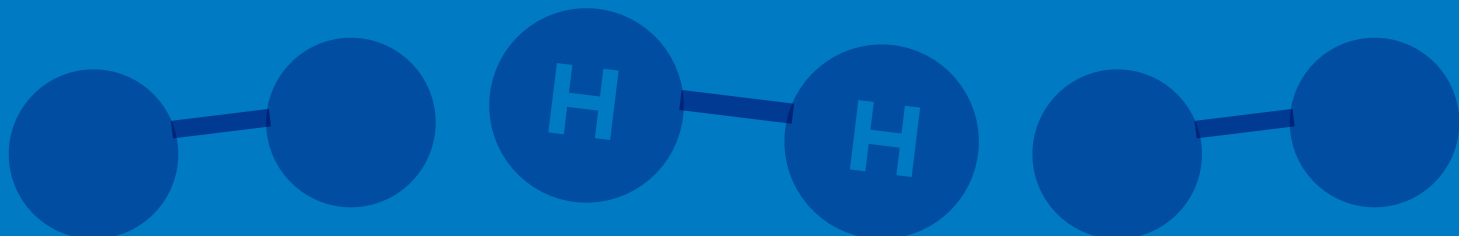
MARPOSS

TESTING OF ELECTROLYZER AND FUEL CELL



TESTING
TODAY

EMPOWERING
TOMORROW





H₂TECH

We are a Marposs Business Unit focused on testing of electrolyzers, fuel cells and their components.

Let us explore our recipe:

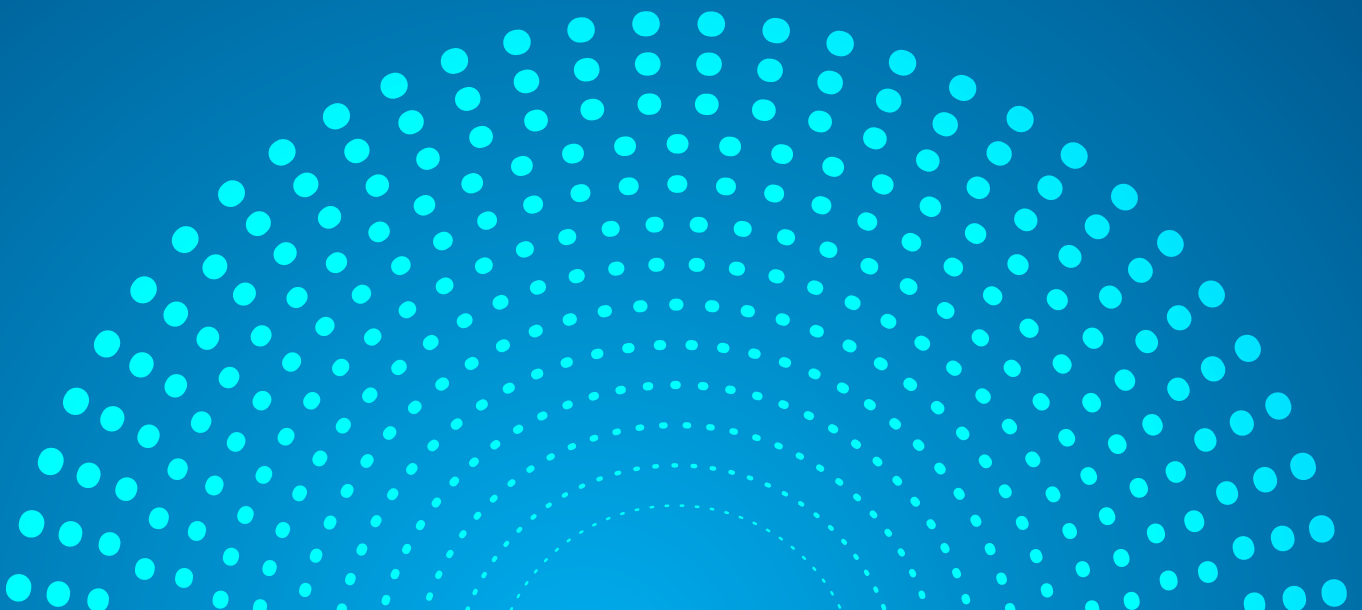
- ▶ **RELIABILITY**
- ▶ **MARKET NEEDS ANALYSIS**
- ▶ **TECHNICAL EXPERTISE**
- ▶ **INNOVATIVE DESIGN**
- ▶ **MANUFACTURING QUALITY**
- ▶ **TECHNICAL SERVICE SUPPORT**
- ▶ **COMMERCIAL SUPPORT**
- ▶ **STRATEGIC CONSULTING**

There are no hidden ingredients, because trust always comes first.

We don't believe in boundaries, what we share is a common roadmap, building together step by step through effort and synergy.

And no matter where your journey begins, whether in R&D, pre-industrialization, or full-scale production, we grow alongside you to turn ideas into reality.

Fed by passion and enthusiasm, we combine our fundamental ingredients to create a solution that fits your technology.





ELECTROLYZER

LEAK TESTING



► **DI water** leak test bench for electrolyser stack

Since DI water as process fluid is already used in electrolyzer stacks manufacturing, we have developed solutions which also imply the exploitation of it. The results achieved allow to discriminate external leakage from crossover leakage.

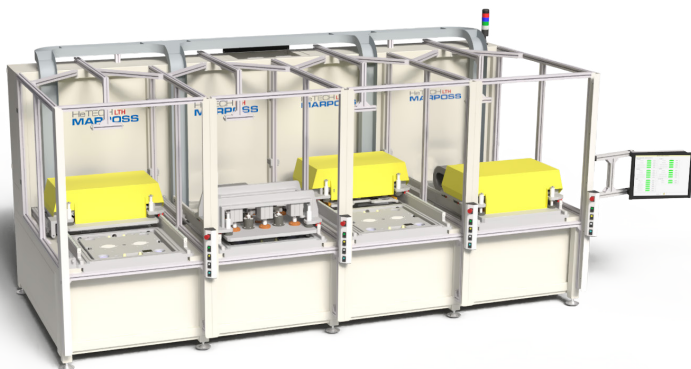
ELECTRIC AND FUNCTIONAL TESTING



► **High Voltage** test machine for Electrolyzer's stack

It consists basically in insulation resistance and dielectric strength tests to validate the electrical safety of the electrolyzer stacks.

PEMFC



► **Helium leak test machine for BPP and MPP, under vacuum technique**

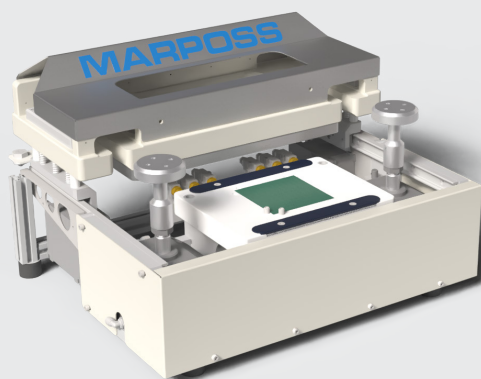
When dealing with demanding leakage thresholds, helium is the ideal trace gas for checking the integrity of coolant, hydrogen and air circuits of PEMFC up to the complete stack. Our solutions can grant optimal and highly precise outputs.



► **ICR test bench for PEMFC components**

It determines the value of the additional resistance due to the non-perfect contact between the BPP and GDL layers and its correlation with the applied contact force. A similar test can be developed also to detect the ohmic loss at high current density: Ohmic Resistance Test.

STRATEGIC CONSULTING
& IN-HOUSE TESTS



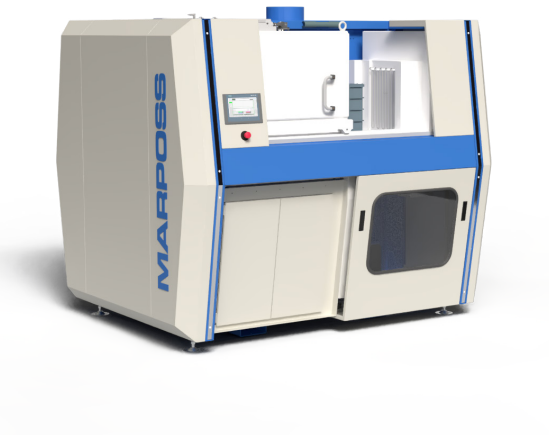
► **Your Partner to develop technology in 4 steps**

Our strategic consulting builds a close partnership aimed to identify and resolve critical issues, reduce risks and validate your process before production.

SOFC



- ▶ **Air leak test machine for SOFC semi-cell**
Less demanding requirements can allow the adoption of air/N₂ leak test methods and more affordable solutions.



- ▶ **End Of Line machine for SOFC stack qualification**
Our end-of-line machines perform the following SOFC system diagnostic tests: Open Circuit Voltage (OCV), Polarization Curve, and Electrochemical Impedance Spectroscopy (EIS).

STEP 1.

Strategic consulting to evaluate components key issues

STEP 2.

Engineering & Construction of a customized test fixture

STEP 3.

Validation tests on in-house equipment

STEP 4.


Technical support and sharing of results



For a full list of address locations, please consult the Marposs official website

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