

Electrolysis Test System

Overview

Product: Electrolysis Test System – M.1.2.2

Our newly designed Electrolysis Test System provides numerous opportunities in the rapidly growing hydrogen market. You can take full advantage of our patented hydraulic cell pressurization technology, which offers many benefits.

- ✓ better heat management
- ✓ more homogenous compression
- ✓ easy and fast change of cell materials
- ✓ 25 cm² (4 cm²) active material area

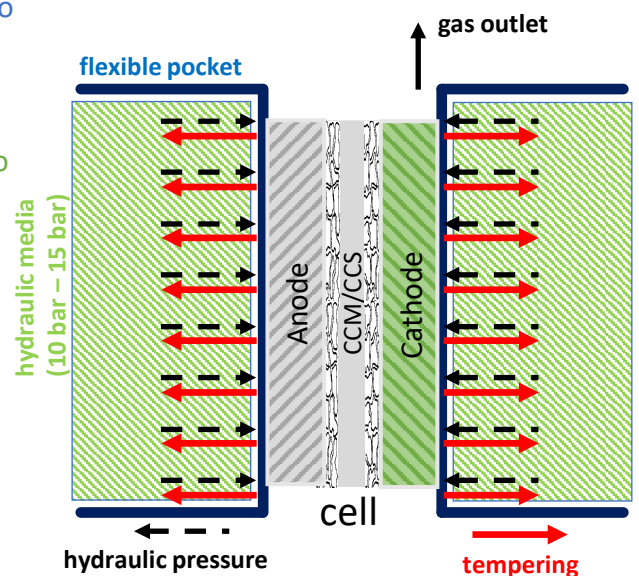
Generate polarization curves and test the properties of your materials with ease. Our test system comes equipped with a housing and two cell frame halves - Anode and Cathode, along with the necessary electrolysis materials. You can either leverage our expertise or use your own materials. Our system is designed to accommodate both **PEM** and **AEM** applications.



The system consists of three separate circuits:

- **Process media circuit:** guides your process media to the active area and away.
- **Temperature circuit:** allows the control of the temperature of your process, up to 80°C.
- **Hydraulic circuit:** regulate the pressure you want to apply on your process.

Use our Plug-In System to connect your electrical connectors.



Electrolysis Test System

Cell Frames

Product: Electrolysis Test System – M.1.2.2

We provide two cell frame halves:
anode and cathode.

If desired, we offer active materials that can be inserted into the cell frame halves, or you can use your own Materials. Feel free to contact us to ensure the compatibility and suitability of your materials.

Customize and build up your anode and cathode configurations and put a membrane electrode assembly in between.

Once assembled, insert the anode and cathode frame into the housing, and guide your process media using the housing screws.

With our patented hydraulic compression, you don't have to screw anything!

You want to change your cell set-up? No problem, quickly disassemble the anode or cathode frame, replace your parts and insert them back.

Operating Conditions:

Process media pressure:

Hydrogen outlet pressure:

Temperature range:

Max. process waterflow 25cm² (4cm²):

Max. temp. (temperature control circuit):

Max. power:

Hydraulic pressure:

0 bar – 5 bar

0 bar – 5 bar

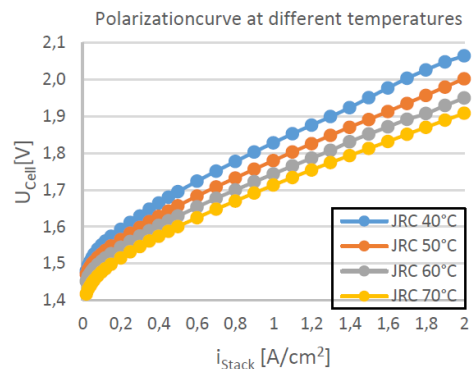
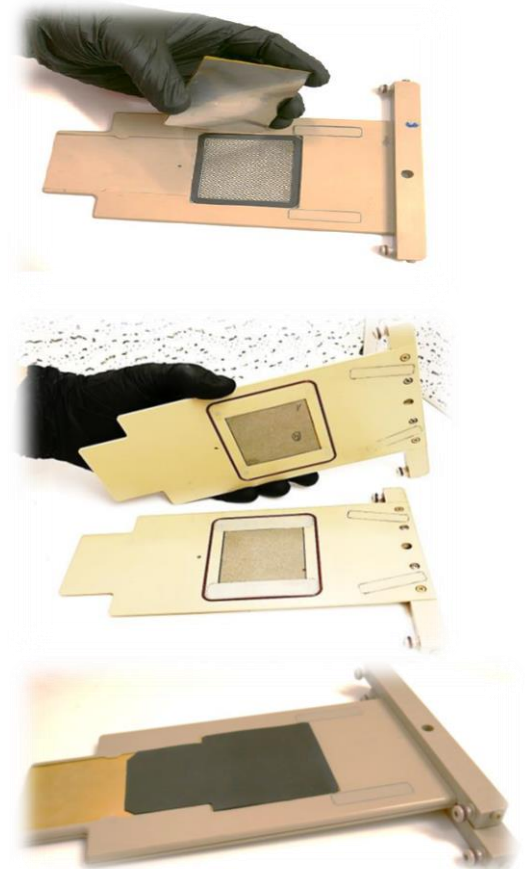
20 °C – 90 °C

250 mlmin⁻¹ (100 mlmin⁻¹)

20 °C – 100 °C

6 A/cm² → 150 W

3 bar – 15 bar

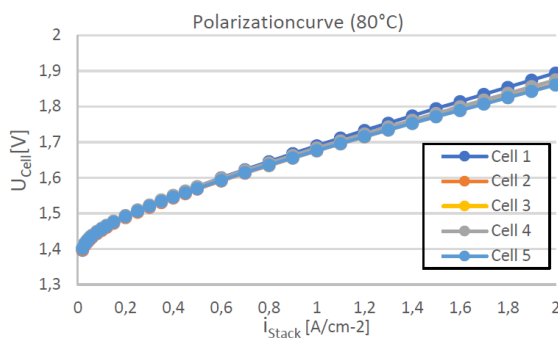


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Test Bench

Product: hydrogen test bench, multi cell testsystem

You want to test more probes in parallel? No problem, our Electrolysis Test System is also available with up to 5 slots. It is based on the 25cm² (4 cm²) single cell testsystem.



Request our full-scale test bench, specifically designed to complement our Electrolysis Test System, complete with a wide range of sensors and actuators. This test bench allows you to conduct comprehensive tests, measuring process media flow rates, hydrogen pressure, and even communication with the test bench through a human-machine interface. If you are interested in an electrolyser test bench for your own system, feel free to contact us.

Hydrogen - technology of the future

- Customized test solutions for PEM systems
- Development of PEM fuel cells
- Development of PEM electrolyzers
- Control and regulation engineering planning and realization of hydrogen systems
- Control design for fuel cell systems

ProH+

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