

DEVELOPMENT TEST STAND FOR

ELECTROLYSIS STACKS

Precise measurements and customized tests are essential for optimizing the performance and efficiency of electrolysis stacks. Our electrolysis test stand offers a comprehensive range of characterization options and test programs tailored to the specific needs of research, development, and production.

The electrolysis stack test stand is used for the development and characterization of PEM electrolysis stacks with a maximum electrical power of 160 kW.

- Flexible test programs for activation, stability, and degradation
- Precise control of current, voltage, temperature, and pressure
- Continuous measurement of single cell voltages, conductivity, and gas concentrations
- Automated test bench control

TECHNICAL HIGHLIGHTS

- Electrical power up to 160 kW
- Current densities up to 4 A/cm²
- Impedance measurements (EIS)
- Endurance tests and accelerated stress tests
- Leakage and diffusion investigations
- Hydrogen gas analysis according to ISO 14687
- Pressure cycle tests with electrochemical characterization
- 24/7 continuous operation with fully automated test sequences
- Operation possible up to minimum partial load

