H2 CoreSystems

H-Port -
H2 Production Onsite Refueling Technologies

- High Pressure Technology
- Testing Equipment Hydraulics
- Pneumatics

Up to 1000 bar - the most innovative Power to Gas system with 24kg/day capacity

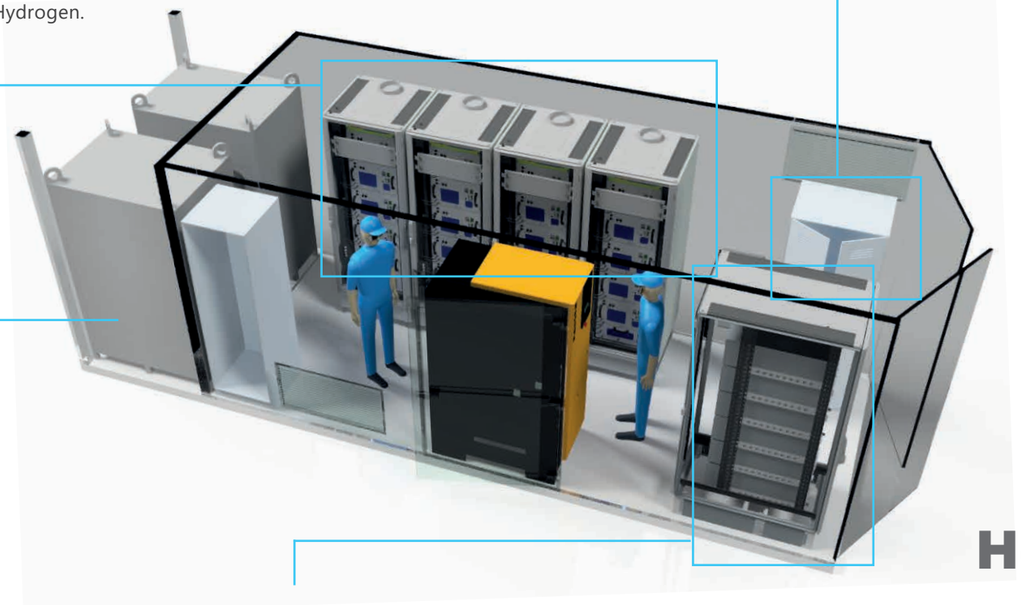
Contact us: sales@h2coresystems.com www.h2coresystems.com

The flexible way of onsite H2 production

With the new H-Port technology we are proud to offer an efficient way of Hydrogen production, compression and handling.

The H-PORT solution is based on efficient AEM electrolysing system of H2 Core System to generate Hydrogen, the well known HULC technology to compress the gas up to 1,000 bar, the cleverness of electrical planning, installation and programming by EVB and finally the experience and know how of CeH4 to realize assembling, testing and the complete documenation package. The H-Port is designed for plug & play application and is covering nearly all requirements. The interface connection for the customer is reduced to a minimum.

A web-based access to the control system offer independant control with your mobile PC or smartphone. Depending on the application we are offering several modules to cover application of „Power To Gas“, „Refueling“ or only for „Storing“ of Hydrogen.



Hydrogen Transformation

The high – quality 19“ cabinet system from our Indoor HydroCab is particularly suitable for your individual H2 application and includes modular stackable EL electrolysers. The basic version is including two cabinetswith five electrolyser modules and is scalable.

Integration

Since the complete installation of the container is CE-compliant and built according to the rules of the DVGW, the system is suitable for „plug & play“ due to the CE marking. You can connect the electricity, water and waste water directly after delivery and you‘re ready to go.

The container contains all the positions mentioned above, like:
- Air conditioning with climate control
- Air Compressor with water separator
- Ventilation system
- All piping and installation
- Chimney

The system is suitable for trucks and roads, so that it can be transported to all locations without any problems.

MAXIMATOR®
Maximum Pressure.

Hydrogen Compression

The Maximator Hulc Series is a modular Gas Compression System, specifically designed for Hydrogen compression up to 1000 bar.

A standard configuration up to 1000 bar consists of one controle module (MASTER-module) and up to three gas booster modules (X-modules) - first stage module up to 140 bar, second stage module up to 400 bar and the final stage module up to 1000 bar. This configuration will provide a gas outlet flow of 1 kg Hydrogen per hour.

This complete series is installed in 19“ rack frames with front panel mounting and front connection for easy installation, exchange and access.

EVB TECHNIK
EMSR + AUTOMATISIERUNGSTECHNIK

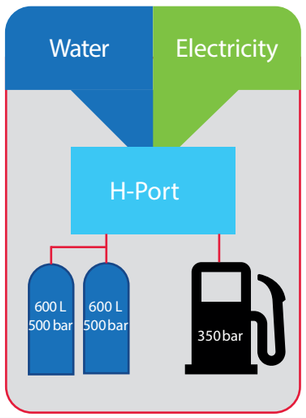
Energy Transformation

The EMSR technology for controlling the system is located in a electrical cabinet located inside the container. A fail-safe automation device from Siemens is used to control the system. In order to achieve the highest level of safety, the system has been designed in accordance with SIL 2 (Safety Integrity Level, SIL).

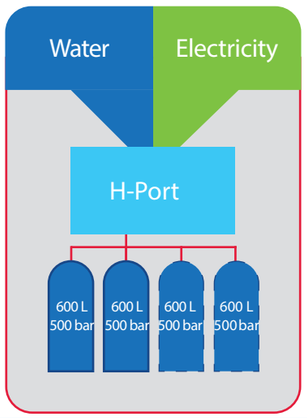
The system can be operated and observed over a HMI 10.1-inch control panel. All plant components such as electrolyzer, compressor and fuel cell are transferred via modbus to the automation system. An end-to-end IIoT connection of the hardware via a modem to a cloud platform results in a flexible installation service and therefore a state-oriented maintenance.
The relevant parameters of the system can be reached by the system operator via an app at any time.

H-Port: Your all-in-one solution

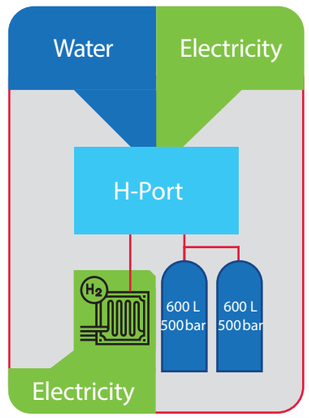
Refueling



Mobile H2-Production



Power to Gas to Power



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