

PURE POWER PURE HYDROGEN

Technology & Design

Made in Germany

Hydrogen Generation System

PRODUCT NAME

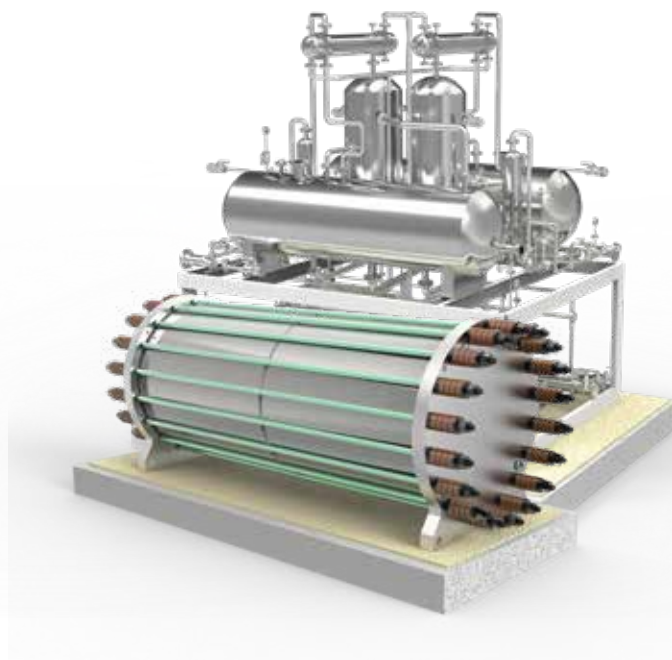
RCT HyMax

PRODUCT TECHNOLOGY

Alkaline

PRODUCT PACKAGE

Electrolyzer Stack, Gas-Liquid Separator, Purification, Auxiliary system, Power supply unit



Definition of the System

Efficient and reliable Alkaline Water Electrolyzer (AWE) complete with Gas-Liquid Separators, Purification Systems, and Auxiliary Units.

Single stack systems offer production capacities up to 1000 Nm³/h.

For higher production capacities, multiple modules can be connected, achieving outputs up to 20 MW each.

Small production capacity needs less than 20 Nm³/h can be purchased upon request.

System & Product Certificates



EFFICIENT, RELIABLE, & SCALABLE HYDROGEN PRODUCTION



High Efficiency

Industry-leading efficiency in converting electricity to hydrogen.



Comprehensive Integration

Combines electrolyzer stack, gas-liquid separators, purification systems, and auxiliary units in one solution.



Scalable Design

Modular architecture allows easy scaling from small to large production capacities.



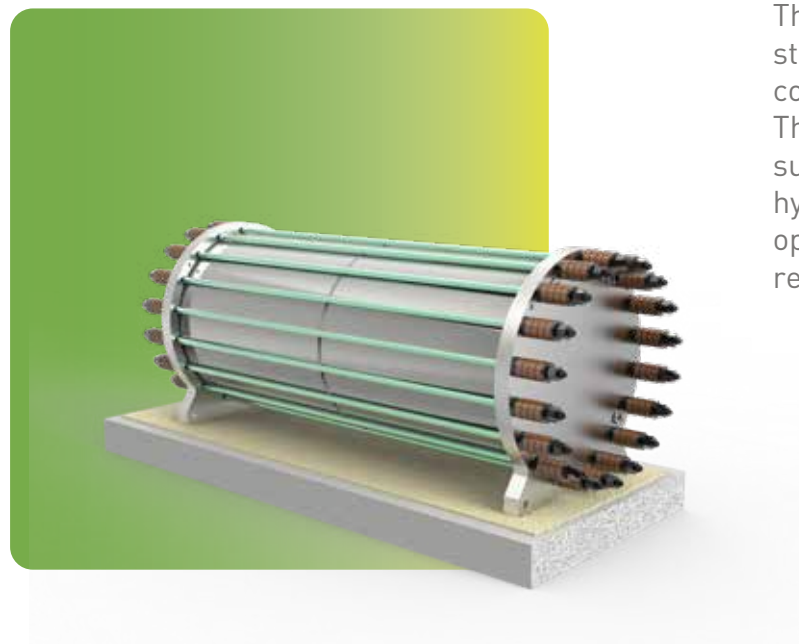
High Purity

Produces hydrogen with >99.999% purity.

The details and main characteristics outlined in this datasheet may exhibit minor variations. In light of continuous innovation and research and development improvements, RCT GH retains the authority to modify the information provided here at any time without prior notice. It is recommended to consistently acquire the latest version of the datasheet, which will be considered an integral part of the contractual agreement governing all transactions associated with the acquisition and sale of the described products.

Electrolyzer Stack

RCT HyMax



The electrolyzer stack features a series structure with one positive and two negative connections, operating at a pressure of 1.6 MPa. The alkaline electrolyzer stack provides substantial hydrogen production, high purity hydrogen, extended equipment lifespan, reliable operation, and low operational and maintenance requirements.

Technical Parameters

| Item | Unit | 200/1.6 | 500/1.6 | 1000/1.6 |
|-------------------------------|---------------------------------------|----------------|----------------|----------------|
| Hydrogen production | Nm ³ /h | 200 | 500 | 1000 |
| Operating pressure | MPa(G) | 1.6 | 1.6 | 1.6 |
| Operating temperature | °C | 85~92 | 85~92 | 85~92 |
| Rated current | A(DC) | 3500 | 6500 | 13000 |
| DC Power consumption(BOL) | kWh/(Nm ³ H ₂) | ≤4.2 | ≤4.2 | ≤4.2 |
| AC Power consumption* | kWh | 1030 | 2575 | 5150 |
| DI Water consumption | l/h | ≤180 | ≤450 | ≤900 |
| KOH electrolyte concentration | wt% | 30 | 30 | 30 |
| Electrolyzer weight | kg | 14700 | 35200 | 50000 |
| Dimensions of electrolyzer | m | 3.20*1.65*1.64 | 4.20*2.45*2.36 | 6.90*2.45*2.36 |

*Total plant consumption incl. BoP, transformer & rectifier