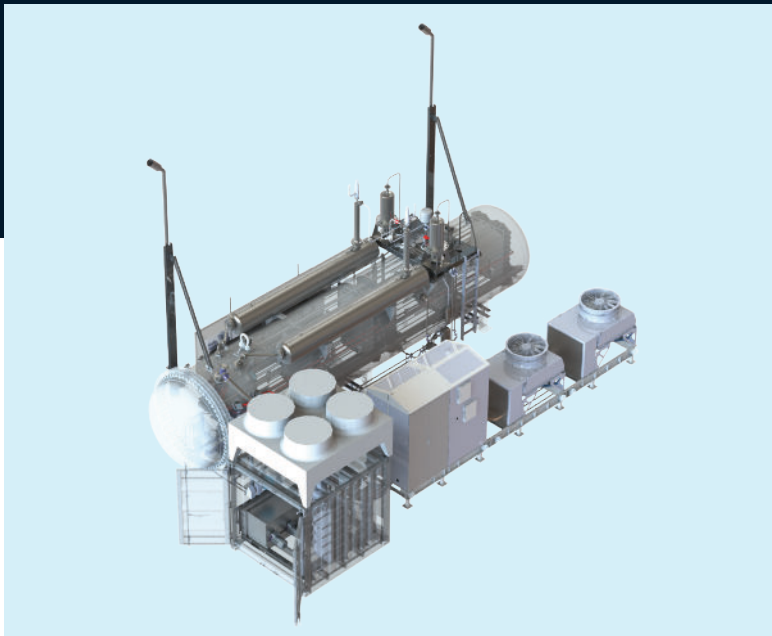
Stiesdal®
Hydrogen



The 3.1 MW HydroGen Electrolyser

The HydroGen technology represents a European made, fully industrialised approach in which the system, installation process, and Balance of Plant are designed for efficient, standardised deployment.

Low green H_2 LCOH
- High system efficiency
- Zero degradation
- Dynamic operation
- Capture low-cost power

High pressure and purity
- Serves downstream process
- Avoids additional compression and loss
- Enables dynamic operations

Low system CAPEX
- Modularising and standardising
- Reduced Balance of Plant requirements
- No process buildings or HVAC

Standardised supply chain
- EU-based and industrial manufacturing
- Designed for mass production
- Quality assurance
- Ready for GW scale-up

Outdoor application
- No process buildings or HVAC
- Simple commissioning
- Minimal ATEX zone

Rapid and modular deployment
- Prefabrication
- Simple and minimal work on site
- Reduces time to revenue

First hydrogen delivered after just 16 days

Stiesdal's team commissioned the fifth HydroGen Electrolyser unit in autumn 2025, at European Energy's Måde PtX facility.

In just over two weeks, we went from system delivery to hydrogen production with no buildings required and minimal site preparation.

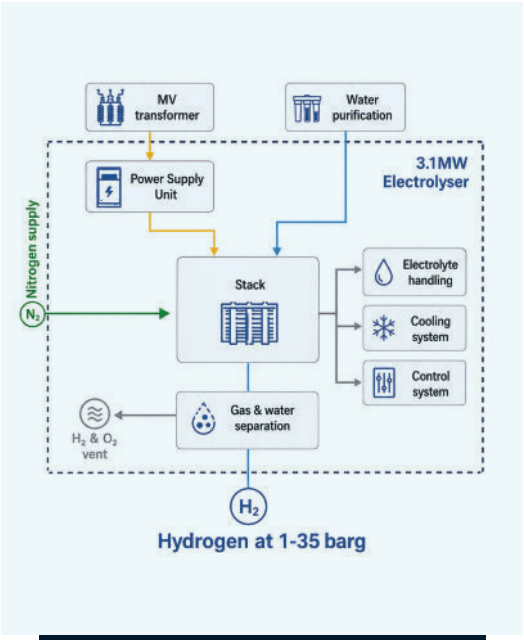
By replacing complex construction with standardised manufacturing, we enable developers to go from project decision to first hydrogen in months rather than years.

Our aim is to make green hydrogen a reliable, competitive part of the energy system, produced at scale, where and when it is needed.

Scan to learn more

Scope of supply

- Pressurized Alkaline stack including temperature control
- Power supply (PSU) module with active rectifier based on IGBTs and supply for auxiliaries
- UPS-backed unit control system including dedicated safety PLC
- Auxiliary module including pumps, and heat exchanger
- Cooling systems for stack, PSU, and gas
- Pressure vessel including vents, gas & water separation, and high performance diffusion filter
- Process and electrical interconnections within and between modules



System price

EUR 2.100.000-2.250.000

24 months warranty period, Stiesdal Hydrogen standard terms, conditional on volume and delivery period.

Technical specifications

Production
- Nominal AC power: 3.1 MW
- Production rate (pure H2): 639 Nm^3 per hour

Performance & Output
- System Power Consumption (AC): 4.7-5.0 kWh/Nm3
- Hydrogen delivery pressure: ambient to 35 bar
- Hydrogen purity: 99.5%

Dynamic operation
- Operating range: 25-110%
- Ramp-up rate: 1% power per second
- Ramp-down rate: 100% power per second

Lifecycle & Durability
- Stack lifetime: 80.000 hours or 10 years @ 100% CF
- Zero degradation concept

Linear scalability

With no buildings required and simplified transportation, developers can right-size capacity immediately and scale effortlessly as demand grows:

- Deploy a single 3.1 MW unit or several
- Scale to 30 MW, 100 MW, or larger without redesigning the Balance of Plant

Stiesdal®
Hydrogen

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SAFETY SYSTEM CERTIFICATION DNV ISO 45001

QUALITY SYSTEM CERTIFICATION DNV·GL ISO 9001