

ON-SITE HYDROGEN GENERATION SYSTEM

Steam methane reforming without high-cost transport

Cost effective hydrogen production

Our advanced & modular hydrogen systems, including the Hy.GEN Compact, Hy.GEN Medium (plus), and Hy.GEN Grand, integratable up to 2,000 Nm³/hr (around 4,200 kg/day) feature on-site backup storage and tube trailer backup supplies, ensuring continuous and reliable service. Utilizing energy-efficient supply methods, these systems are designed for optimal performance without a local operator. Our 24/7 remote service and monitoring capabilities offer peace of mind. Flexible contracting options and specialized compression and storage solutions provide a tailored approach to meet your specific requirements, creating a dependable hydrogen service ecosystem. Hygear has been developing, producing and servicing their installations worldwide since 2002. We are a unique company that has electrolysis, SMR and electric reforming both with carbon capture as own proprietary technology options for hydrogen production.

KEY BENEFITS

- Low operational costs
- Sustainable solution
- Reduction of emissions
- Autonomous & safe operation
- Compact & modular system
- No trucking on-site
- In-house design
- Turn-key solution
 - Single point of communication
 - Fast response
 - All in-house expertise
 - Low complexity

SPECIFICATIONS

MODEL

OUTPUT

Nominal hydrogen flow
Dependent on hydrogen purity
Hydrogen purity range
Pressure range

Carbon Capture

NOMINAL CONSUMPTION

Natural gas / Biomethane
Electricity
Water

DIMENSIONS

Size
Weight

OPERATING CONDITIONS

Startup time
Turndown (H₂ product flow)
Ambient temperature range

Hy.GEN Compact

Max. 47 Nm³/hr
(4.13 kg/h) (30 SCFM)
99.5% - 99.999%
1.5 - 7.0 bar(g)
(22 - 102 psi)

Possible add-on

(15 SCFM)
Max. 23 Nm³/hr
14.5 kWe
100 L/h
(26.4 gal/h)

20 ft
7,300 kg
(16,100 lbs)

Hy.GEN Medium

Max. 94 Nm³/hr
(8.27 kg/h) (60 SCFM)
99.5% - 99.999%
1.5 - 7.0 bar(g)
(22 - 102 psi)

Possible add-on

(30 SCFM)
Max. 46 Nm³/hr
26.0 kWe
200 L/h
(52.8 gal/h)

40 ft
12,000 kg
(26,500 lbs)

Hy.GEN Medium Plus

Max. 141 Nm³/hr
(12.4 kg/h) (90 SCFM)
99.5% - 99.999%
1.5 - 7.0 bar(g)
(22 - 102 psi)

Possible add-on

(45 SCFM)
Max. 69 Nm³/hr
29.5 kWe
300 L/h
(79.2 gal/h)

40 ft
15,000 kg
(33,000 lbs)

Hy.GEN Grand

Hybrid: Gas & Electricity

Max. 500 Nm³/hr
(44 kg/h) (311 SCFM)
99.5% - 99.999%
30 bar(g)
(435 psi)

Always included

(93 SCFM)
Max. 150 Nm³/hr
512 kWe *
700 L/h
(185 gal/h)

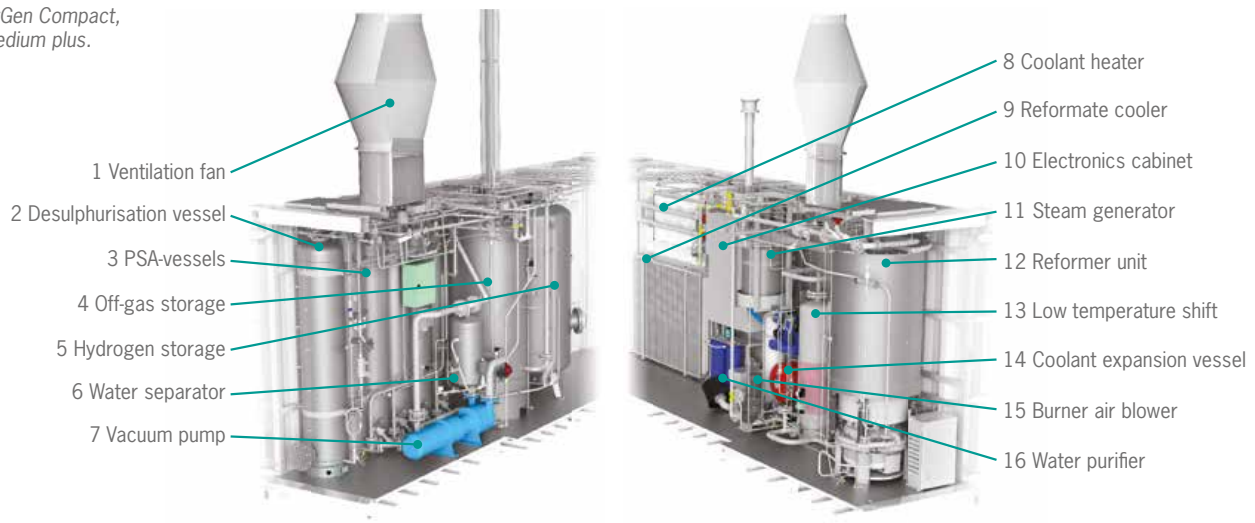
40 ft + skid
20,000 kg
(44,000 lbs)

*Electric reformer
integrated

CO₂ OUTPUT

200 kg/hr (440 lbs/hr)
(98% purity, 85% recovery)
at 0.1 bar(g) (1.4 psi)

Set-up for HyGen Compact,
Medium & Medium plus.



All data and values are indicative and based on nominal and non-frost conditions. Values might differ due to local circumstances and feedstock characteristics. Normal condition (Nm³) is defined at a temperature of 0°C and pressure of 1.013 bar(a). No rights can be obtained from this brochure. Numbers shown are indicative.