



HubGen 1000: Pressurised Alkaline Electrolyser optimised for lowest LCOH

ST Engineering Energy Solutions brings to the table the next frontier in hydrogen production. Fast, Simple, Reliable: Install the container on just 8 concrete plinths, connect effortlessly to predefined interfaces, and get ready to supply in just 1-3 days of installation time on-site.

**HubGen 1000 is a proven solution
for small- and medium applications, such as:**



Chemical
Feedstock



Process
Heat



Energy
Storage



Transport
Fuel

30 bar (g)

Delivery Pressure

99.999 %

Hydrogen Purity

50 ft

Compact Footprint

70 %

System Efficiency

1 MW Module:

Our standardised 1 MW All-In-One Solutions in minimal space – no additional buildings or support systems required – easily accessible, simple to maintain and scalable when demand increase. Designed for maximum reliability, using only proven components. Data-driven, intelligent monitoring for highly efficient system operation - protected by robust cyber security systems.

Hydrogen Production

Performance class	1 MW
Net production rate	200 Nm ³ /h, 431 kgH ₂ / day
System specific energy consumption ¹	57 kWh/kgH ₂ 5.1 kWh/Nm ³
System efficiency ¹	70%
Dynamic production	15-100%
H ₂ purity after gas cleaning	99,999% / meets ISO 14687:2019
Delivery pressure	30 bar (g)
Electrical Efficiency	
Electrical connection	10 kV or 20 kV / Mid-voltage power grid
Power Supply electrolysis ²	3 x 400V / 50 Hz (acc. IEC 60038), Connecting power: 1.25 MVA
Power Supply auxiliary	3 x 400 V / 50 Hz (acc. IEC 60038), Connecting value: 125 kVA
Feedstock	
Electrolyte	30 wt % KOH aqueous solution
H ₂ O required quality	i.a.w. EU drinking water directive EU2020/2184
Hardware	
Dimensions L x W x H	15 x 2.8 x 3.9 (+ upper platform 1.1m - 2.5m)
Weight ³	70 t
System Lifetime	20 years (expected)
Ambient temperature	-20 - 50°C
Noise emission	90 - 100 db(A)
Electrolysis technology	Alkaline – C € certified

¹ Standard conditions: BoL, 0°C outdoor temperature, 30 bar (g) H₂ transfer pressure

² Transformer is required

³ Including fill media (e.g., salt for water treatment, KOH solution, water-ethylene glycol mixture for cooling)

All specifications refer to our product: HubGen 1000, graphics and illustrations may vary, some components and specifications in this illustration are tailored to customer and project requirements. Information in this version (07 2025) is valid until the next version.

