

# High-pressure alkaline electrolyzers

HydrogenPro is a global tech company contributing to the energy transition. We aim to develop the best and most cost-efficient electrolyzers in the world.

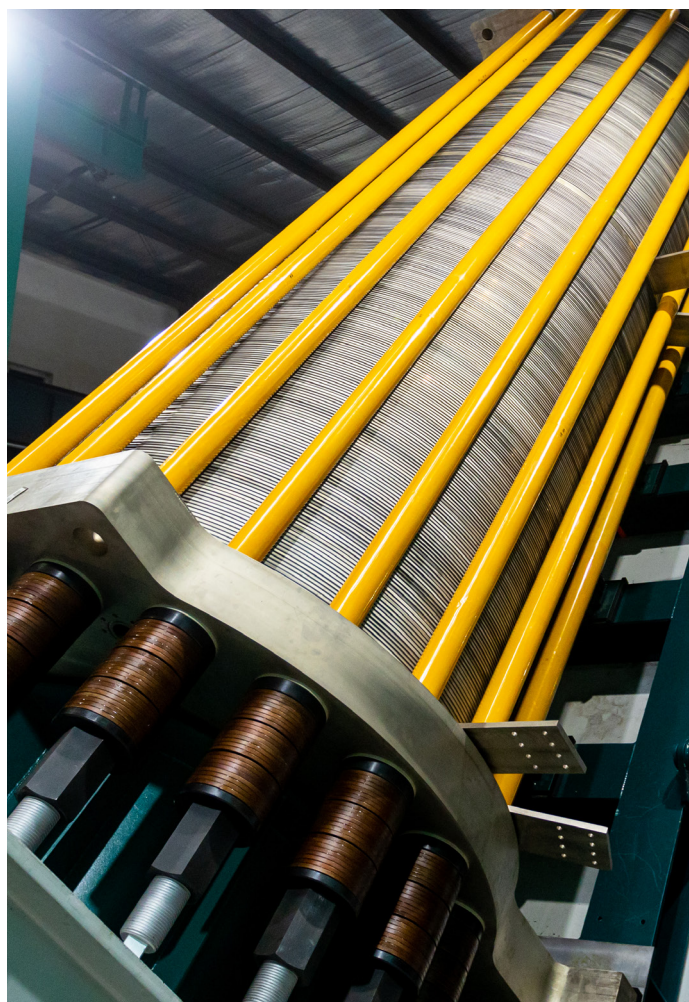
We are an original equipment manufacturer with a high focus on R&D. Our core product is high-pressure alkaline electrolyzers. Our system responds well to intermittent power, making it a perfect fit for large-scale installations paired with renewable energy.

We have been producing electrolyzers since 2013. Our technology supplies high-performance and zero emission energy, to help you reach your production and sustainability goals all at the same time.

## TECHNICAL DATA (single electrolyzer stack)

<b>H<sub>2</sub> / O<sub>2</sub> gas production</b>	
Normal H <sub>2</sub> flow (dry)	1050 Nm <sup>3</sup> /h
Flow range (load)	40%-100%
Delivery pressure	15 barg
H <sub>2</sub> purity out of stack	> 99.6% (100% load)
O <sub>2</sub> purity out of stack	> 99.5% (100% load)
<b>Electrical requirements</b>	
Guaranteed stack consumption (DC)*	4.8 KWh/Nm <sup>3</sup>
Estimated degradation	1% YoY avg.
Electrode lifetime	~ 10 years
<b>Feed water and electrolyte</b>	
Water conductivity required	0.1 S/cm
Demineralized water consumption	9.4 kg/ kg H <sub>2</sub>
Electrolyte (KOH at 90°C)	30 wt%
Electrolyte per stack	20 tonnes
<b>Dimensions &amp; Weight</b>	
Train footprint (LxHxW)	19.2 x 5.9 x 7.5 m
Stack dimensions (LxHxW)	8.4 x 2.9 x 2.7 m
Stack weight	72.2 tonnes

**Certificates:** CE, ASME, ISO 9001, ISO 14001, ISO 45001

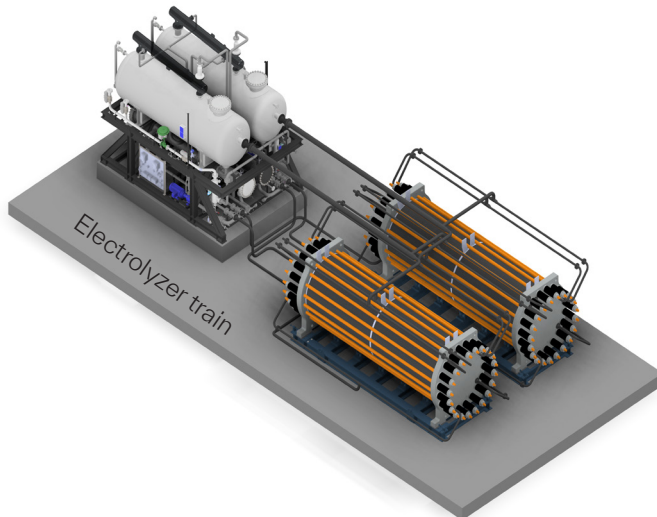


## TECHNICAL DATA (Gas separation skid)

<b>Capacity</b>	>2500 Nm <sup>3</sup> /h
<b>Dimension (LxWxH)</b>	6.8 x 4.3 x 5,3 m
<b>Weight</b>	22.6 tonnes

\*next generation electrodes 4.4 KWh/Nm<sup>3</sup>

## Large scale modular solution



### OUR STANDARD SCOPE:

- Electrolyzers (in pairs, with a capacity of 1050 Nm<sup>3</sup>/h each, total 2100 Nm<sup>3</sup>/h)
- Gas separator units, with separate lye circulation systems and gas scrubbers with instrumentation
- Gas analyzers for detection of H<sub>2</sub> in O<sub>2</sub>
- Gas analyzers for detection of O<sub>2</sub> in H<sub>2</sub>

### OPTIONS:

- Feed water tanks and pumps
- Lye mixing tanks and pumps



Sustainable



Scalable



Flexible



Powerful

### CONTACT US

HydrogenPro ASA  
Hydrovegen 55  
3936 Porsgrunn  
Norway  
sales@hydrogenpro.com  
www.hydrogenpro.com

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