



GENH2™ Liquefaction

Optimized, Scalable, Efficient Liquefaction System

As liquid hydrogen (LH₂) demand rises, technologies for liquefying gaseous hydrogen become essential. GenH2's Liquefaction systems, inspired by NASA technology, produce liquid hydrogen by cryogenically cooling and condensing gaseous sources. They convert hydrogen gas into a denser liquid for efficient storage and transport, enhancing purification and fuel efficiency.

THERE WHEN YOU NEED IT



Dry System, No Pre-Cooling Required

The liquefaction unit uses a closed-loop cryo-refrigeration process utilizing dry helium, eliminating the need for liquid nitrogen pre-cooling.



On-Demand, Liquid Hydrogen

The LS series liquefaction systems deliver ultra high purity liquid hydrogen in the required quantity at the point of use, offering solutions for remote or decentralized needs.



Convenient, Flexible Systems

A variety of solutions to meet commercial needs, including small-scale (2-20 kg/day), medium-scale (50-100 kg/day), and industrial-scale (1000 kg/day).

KEY ADVANTAGES



Ultra High Purity

Liquefaction systems create ultra high purity liquid hydrogen, providing an ideal energy carrier for fuel cells.



Compact Footprint

Ideal for decentralized fueling and long-range transport use cases.



Accessible, Predictable

Optimized space utilization, offering unmatched access to and control over liquid hydrogen.

APPLICATIONS

- Hydrogen refueling infrastructure
- Fleet and logistics hubs
- Commercial Mobility
- Remote power systems
- R&D and testing facilities

Product Specifications	LS20	LS100	LS1000
Daily liquefier capacity (kg)	20kg	100	1000
Ortho to Para Converter	Available	Available	Available
Turn-down available (%)	Yes	Yes	Yes
Refrigeration cycle	Cryo Cooler	2 Stage Helium Brayton	2 Stage Helium Brayton
Storage included (L)	400L	400kg and up	2400kg and up
Zero Boil Off Mode	Yes	Yes	Yes
FootPrint	20'x8.5' Container	33'x23'	112'x71'
Input Power	50kW	160kW	1.17MW
Start up Time	1 day	1 day	2 days
GH2 Purity	99.999%	99.95%	99.95%
Liquin Nitrogen	Not Required	Not required	not Required

Product specifications and performance criteria are derived from models and simulations. All data provided in this section is subject to change according to unique configurations.

HYDROGEN, UNLEASHED

GenH2's Controlled Storage technology transforms liquid hydrogen into an **ultra-pure, efficient energy carrier**. Whether deployed standalone or as part of a larger infrastructure, GenH2 enables a zero-loss hydrogen future.

Learn more at www.genh2.com

Questions? Contact us at: info@genh2.com

