



GENH2™ CONTROLLED STORAGE

Zero-Loss, Subcooled Liquid Hydrogen Transfer & Storage System

Liquid hydrogen (LH₂) has immense potential as a clean fuel, but significant losses and boil-off during transfer and storage have long created costly inefficiencies. GenH2's Controlled Storage systems, inspired by NASA's Integrated Refrigeration and Storage (IRaS) technology, enable zero-loss LH₂ transfer and storage which dramatically reduces costs, extends shelf-life, and maximizes ROI.

THERE WHEN YOU NEED IT



Indefinite Storage at 20 Kelvin

Active cryogenic refrigeration ensures LH₂ remains in liquid form indefinitely—no boil-off, no venting.



On-Demand, Subcooled Transfer

The RS1500 turbo cryo-refrigerator delivers over 1,000 watts of cooling at 20K, stabilizing LH₂ for seamless fueling or transport.



Drop-in Flexibility

Skid-based, modular units are designed to serve stations, fleets, microgrids, and distributed hubs.

KEY ADVANTAGES



Zero-Loss, Zero-Boiloff

Eliminates losses during transfill, storage, and dispensing.



Lower Pressure = Higher Efficiency

Eliminates need for venting and reduces stress on systems.



Maximized Cost Savings

Reduces waste, enabling more LH₂ delivery per fill and fewer refueling cycles.

APPLICATIONS

- Hydrogen refueling infrastructure
- Fleet and logistics hubs
- Long-duration energy storage
- Remote power systems
- R&D and testing facilities

Product Specifications	RS1500
Cooling Capacity	1000 watts at 20K
Liquid Nitrogen	Not required
Heat Lift Assembly	Intregrated by our LH2 tank manufactors
Refrigeration cycle	2 stage Helium Brayton
Installation	Skid based design
Mobile design	Trailer based
FootPrint	35'x23' Container
Input Power	160kW
Start up Time	1 day
Cooling water	Closed Loop
Smart Tank ability	Saturation detection capable
Sensors Package	Liquid levels, liquid temperature, tank pressure & density algorithm

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 prevents losses, ensuring reliable access to liquid hydrogen for advanced clean energy. 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