

Boil-Off Solved with GenH2 Liquid Hydrogen Transfer & Storage System

Liquid hydrogen (LH_2) has immense potential as a clean fuel, but significant losses and boiloff during transfer and storage have long created costly inefficiencies. GenH2's Liquid Hydrogen Solutions virtually eliminates venting to dramatically reduce costs, extend shelf life, and maximize ROI.

THERE WHEN YOU NEED IT



Indefinite Storage at 20 kelvin

Continuous heat lift ensures LH_2 remains in liquid form indefinitely—no boil-off, no venting.



On-Demand, Subcooled Transfer

The RS400 cryo-refrigerator delivers 400 watts of cooling power at 20 kelvin, stabilizing LH_2 for seamless fueling operations.



Drop-in Flexibility

Skid-based, modular units are designed to serve stations, fleets, microgrids, and distributed hubs for a wide range of end use applications.

KEY ADVANTAGES

- 0 Maximum Hydrogen Retention**
Can eliminate losses during transfill, storage, and dispensing.
- Lower Pressure = Higher Efficiency**
Can eliminate the need for venting and reduces stress on systems.
- \$ Maximized Cost Savings**
Reduces waste, enabling more LH₂ delivery per fill and fewer filling cycles.

APPLICATIONS

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

Removing 400 watts of heat at 20 kelvin lowers the temperature of the liquid hydrogen within the bulk storage tank, creating a valuable enthalpy margin and a favorable pressure differential. This control significantly improves liquid hydrogen pump performance while substantially reducing losses caused by pump cavitation.

PRODUCT SPECIFICATIONS	RS400
Cold Capacity	400 watts at 20 kelvin
Start up Time	Minutes
Cryogenic Cryocoolers	4 Included
Cryostat (Cold Box)	Included
Micro-Channel Heat Exchanger	GenH2 Proprietary - Included
Helium Compressor Package	Included
Installation	Skid based design
Mobile design	Trailer Based
Compact FootPrint	124.0" W x 72.0" D x 82.0" H
Power Management System	Included
Liquid Hydrogen Pump System	Included
Vacuum Insulated Piping, Connection, Valves & Seals	Cost Varies by Installation
Continuous Power Requirement (CPR)	60 kW
Electrical Power System	480 V, 3 Phase, 60Hz (Required - Not Included)

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 Liquid Hydrogen Solutions prevent losses, ensuring reliable access to liquid hydrogen for advanced clean energy. Whether deployed standalone or as part of a larger infrastructure, GenH2 enables a viable hydrogen future.

Learn more at genh2.com
Questions? Contact us at: info@genh2.com