CLH Series

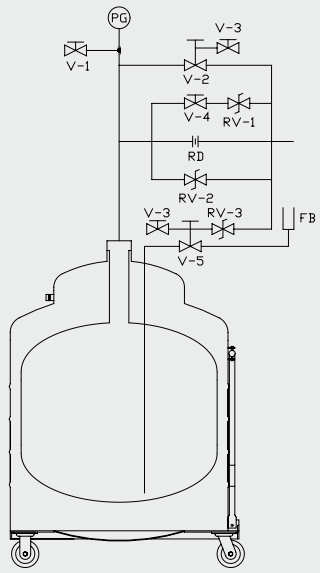
Portable Liquid Hydrogen Dewars

Performance, Reliability & Safety

CRYOFAB

Features

- All S.S. Welded Construction
- Robust Design
- Built-in Vacuum Insulated Fill/ Withdrawal Port
- Bayonet Connection for Low Heat Leak Transfers
- Purge Ports for Safety on All Valves
- D.O.T. Certified 4L50
- Bellows Sealed Vent, Pressurization and Isolation Valves
- Compact Size
- Common Vent for Piping Away Relief Devices and Exhaust Port



SCHEMATIC NOMENCLATURE	
SYMBOL	DESCRIPTION
V-1	PRESSURIZING VALVE
V-2	VENT VALVE
V-3	BONNET PURGE PORT VALVE
V-4	ISOLATION VALVE
V-5	MANUAL VACUUM JACKETED LIQUID WITHDRAWAL VALVE
PG	PRESSURE GAUGE, 0-200 PSI
RV-1	PRESSURE RELIEF VALVE, 15 PSI
RV-2	PRESSURE RELIEF VALVE, 50 PSI
RV-3	PRESSURE RELIEF VALVE, 50 PSI
RD	RUPTURE DISC, 150 PSI
FB	FEMALE BAYONET, 1/2X6 LINDE

CLH Series

Cryofab's CLH series portable liquid hydrogen dewars are intended for low pressure transport and storage. The operating premise is for conventional straight liquid dispensing using specially designed transfer equipment and connections. Great effort and detail has been incorporated into the design for the relief/ safety system and fill/withdrawal apparatus. The dewars are designed with the lowest possible heat leak in mind without the use of a secondary cryogen. The CLH employs state-of-the art vapor-cooled multishield technology in conjunction with superinsulation to effect the lowest guaranteed loss rates. Materials of construction are rugged stainless steel and all dewars are supplied with casters for easy mobility. Liquid hydrogen can now be transported from large tanker trucks into the lab.

The product line ranges from 100 to 400 liters. We can fabricate larger capacities to customer specifications.

CLH	100	250	400
D.O.T.	4L50	4L50	4L50
Net Capacity	100 liters	250 liters	400 liters
Gross Capacity	110 liters	275 liters	440 liters
Outside Diameter	660.4 mm 26 inches	812.8 mm 32 inches	1016.0 mm 40 inches
Height	1422.4 mm 56 inches	1625.6 mm 64 inches	1574.8 mm 62 inches
Weight (Empty)	114.3 kg 252 lbs	186.0 kg 410 lbs	292.6 kg 645 lbs
Weight (Full)	121.6 kg 268 lbs	203.7 kg 449 lbs	321.1 kg 708 lbs
N.E.R.	2.0%	1.6%	1.0%
Transport Pressure	103.5 kPa 15 PSIG	103.5 kPa 15 PSIG	103.5 kPa 15 PSIG
M.W.A.P. (Maximum Allowable Working Pressure)	345.0 kPa 50 PSIG	345.0 kPa 50 PSIG	345.0 kPa 50 PSIG
Fill/Withdrawal Connection	1/2" x 6" Linde Female Bayonet	1/2" x 6" Linde Female Bayonet	1/2" x 6" Linde Female Bayonet
Caster Size	4 inch	5 inch	5 inch
Vent Connection	3/4" Compression	3/4" Compression	3/4" Compression

Custom Fabrication

Cryofab has the ability to fabricate hydrogen dewars, containers, tanks, cryostats, chambers and transfer systems to exact customer specifications. First, we identify the customer's exact requirements and adapt them to our technical capabilities. This, coupled with a comprehensive range of products, provides a cost effective end result in a manageable time frame. Our 35 years of experience ensure that products perform to customer expectations.

Prototype

Our approach to prototyping is to think ahead to the production assembly and design a product with as few parts, welds, procedures and as little handling as possible. All this yields lower costs.

High Production Products

We focus on manufacturing high quality products quickly and at the lowest price possible. Our superior prototype design, fabrication tools, machinery and flow of materials are key elements for a successful product run. The long term goal is for reproducibility in dimensions, performance and cosmetics during a production run. Whether you are manufacturing hundreds or thousands, every product will be identical at completion.

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