Haier Liquid Nitrogen Storage System

Cryostor series

5 Year Vacuum Warranty

Muffler

Decant Valves

Pressure Raising

Liquid Storage

Security

Stainless Steel Construction

Relief Valve



Cryostor Series



Introduction

Cryostor Series is the latest innovation for high-performance liquid phase cryopreservation. The container uses the pressure generated from vaporization of small amount liquid nitrogen to discharge LN_2 for other containers. Storage capacities range from 5 to 500 liters.

Key Features

- Ten models with capacities range from 5 to 500 liters.
- All models are equipped with safety valves, 200 L and above models have additional rupture disc.
- All welded stainless steel construction

- Rotary ring construction
- Labelled valves for easy identification.
- 5 year acuum warranty

• 29 •

Product Advantages

Stainless Steel Structure

Stainless steel structure can withstand the most demanding environment and ensure long-lasting security. It also provides reduced evaporation loss rate, compared with conventional welding insulation tanks.

Casters

All models have four casters for better mobility and convenient use in different occasions.

A variety of accessories

Each Cryostor Series model is equipped with a pressure valve, a drain valve, a relief valve, and a pressure gauge. For 200 L and above models also apply safety structures such as rupture discs and silencers.



Self-pressurized LN₂ Backup System

Self-pressurized LN_2 back up system is used for Cyro freezers. In extreme cases, such as power outage, system failure and so on, the backup system automatically opens cryogenic solenoid valves and injects liquid nitrogen to ensure the set temperature and protect samples.

Compared to traditional high pressure cylinder backup system, the self-pressurized $LN_{\rm 2}$ backup system has the following advantages:



- Safer: under required operating condition, self-pressurized LN_2 backup system has lower working pressure and hence safer than traditional high-pressure backup system.
- More Economical: self-pressurized liquid nitrogen tank has better insulation performance, lower evaporation losses and longer working duration with the same amount of LN_2 .
- More convenient: self-pressurized LN_2 backup system combines the controllers with self-pressurized components and greatly reduces pipelines and cables used in traditional backup systems.
- More stable: due to the reduction of intermediate pipe connections, impact of environmental factors on the system is reduced.

• 31 •

• Cheaper: self-pressurized LN₂ backup system costs less than traditional backup systems.

Technical Parameters

Model	YDZ-5	YDZ-15	YDZ-30	YDZ-50	YDZ-100				
Performance									
Volume of LN ₂ (L)	5	15	30	50	100				
Static Evaporation* (L/Day)	0.15	0.38	0.75	1	1.3				
LN₂ output (L/Min)	2	2	3	3	4				
Dimensions									
Height(MM)	510	750	879	991	1185				
Outside Diameter(MM)	329	404	454	506	606				
Empty Weight(KG)	15	23	32	54	75				
Gross Weight(KG)	19.1	35.3	56.6	95.0	157.0				
Pressure Parameters (MPA)	1. Standard working pressure 0.05, 2. Maximum working pressure 0.09, 3. First stage safety valve relief pressure 0.099, 4. Second stage safety valve release pressure 0.15, 5. Pressure gauge range 0~0.25								

Model	YDZ-150	YDZ-175	YDZ-200	YDZ-240	YDZ-300	YDZ-500				
Performance										
LN₂ capacity (L)	150	175	200	240	300	500				
Static Evaporation* (L/Day)	1.95	2.1	2.4	2.9	3.3	5.5				
LN₂ output (L/Min)	6	6	8	8	8	10				
Dimensions										
Height(MM)	1188	1298	1265	1350	1459	1576				
Outside Diameter(MM)	706	706	758	758	857	1008				
Empty Weight(KG)	102	120	130	148	202	255				
Gross Weight(KG)	225	264	294	366	448	665				
Pressure Parameters (MPA)	Standard working Second stage sa	• •		essure 0.09, 3. First s						

^{*} Static evaporation and static holding time is theoretical value. Actual evaporation and holding time is affected by usage, atmospheric conditions, and manufacturing tolerances.

• 32 •