



NANJING OCEAN INDUSTRY CO., LTD

NANJING OCEAN GROUP CO., LIMITED

WELDED INSULATED CYLINDERS & LIQUID NITROGEN TANKS

-THE PROFESSIONAL SUPPLIER OF CRYOGENIC CYLINDERS



CATALOG 2025

WELDED INSULATED CYLINDERS(GB24159-2009)

Our DPL & DPW series welded insulated cylinders feature a low evaporation rate, an extended vacuum guarantee period, easy operation, and a high liquid utilization ratio.



Welded Insulated Cylinders(Vertical/110L~300L)

Specifications		HG-IG-DPL450-V-14				HG-IG-DPL450-V-23					HG-IG-DPL450-V-30.5			HG-IG-DPL500-V-19.5		
Geometric Volume(L)		175	195	210	236	110	130	175	195	210	175	195	210	240	290	300
Effective Volume(L)		166	185	199.5	224	104.5	123.5	166	185	199.5	166	185	199.5	228	275.5	285
Working Pressure(Bar)		14				23					30.5			19.5		
Relief Valve Setting(Bar)		15.9				24.1					36.2			23.4		
Rupture Disc Setting (Bar)		24				35					51.7			34.3		
Outside Diameter(mm)		φ508												Φ558		
Height(mm)		1515	1640	1735	1885	1110	1250	1515	1640	1735	1515	1640	1735	1645	1900	1950
Empty Weight(kg)		~108	~116	~125	~135	~93	~102	~122	~131	~138	~150	~160	~168	~155	~173	~177
Filling Weight (kg)	LOX	~179	~200	~215	~242	~112	~133	~179	~200	~215	~179	~200	~215	~246	~297	~307
	LIN	~127	~142	~153	~172	~80	~94	~127	~142	~153	~127	~142	~153	~175	~211	~218
	LAR	~220	~245	~264	~297	~138	~163	~220	~245	~264	~220	~245	~264	~302	~365	~378
	LNG	~67	~74	~80	~90	~~	~~	~~	~~	~~	~~	~~	~~	~~	~~	~~
	LCO ₂	~~	~~	~~	~~	~110	~130	~175	~195	~210	~163	~181	~195	~240	~290	~300
NER(%Per Day)≤		2.5	2.45	2.41	2.35	3.28	3.04	2.5	2.45	2.41	2.5	2.45	2.41	2.34	2.22	2.2
Level Gauge		Float/ Digital Display														



Welded Insulated Cylinders (Vertical/410L~1000L)

Specifications		HG-IG-DPL700-V-13.5			HG-IG-DPL700-V-23		HG-IG-DPL700-V-32		HG-IG-DPL900-V-25		
Geometric Volume(L)		410	450	500	450	500	450	500	750	800	1000
Effective Volume(L)		369	405	450	427.5	475	427.5	475	712.5	760	950
Working Pressure(Bar)		13.5			23		32		25		
Relief Valve Setting(Bar)		15.9			27.6		37.9		30		
Rupture Disc Setting(Bar)		20.7			39		56		41.4		
Outside Diameter(mm)		φ768							φ 962		
With Wheels (L*W*H)cm		97*86*187	97*86*198.5	99*88*209	97*86*198.5	99*88*209	97*86*198.5	99*88*209	~	~	~
Non Wheels (L*W*H)cm		86*86*180.5	86*86*192	88*88*202	86*86*192	88*88*202	86*86*192	88*88*202	112*112*198	112*112*206	112*112*237.5
Empty Weight(kg)		~314	~322	~338	~380	~401	~419	~470	~722	~740	~800
Filling Weight (kg)	LOX	~	~	~	~461	~513	~461	~513	~769	~820	~1026
	LIN	~	~	~	~328	~365	~328	~365	~546	~583	~729
	LAR	~	~	~	~567	~630	~567	~630	~945	~1008	~1260
	LNG	~157	~175	~192	~	~	~	~	~	~	~
	LCO ₂	~	~	~	~438	~488	~408	~454	~720	~769	~962
NER(%Per Day)≤		2.03	1.97	1.9	1.97	1.9	1.97	1.9	1.73	1.7	1.5
Level Gauge		Float/ Digital Display									



Liquid Nitrogen Supply Cylinder

Specifications		HG-IG-DPL550-240-0.9	
Geometric Volume(L)		240	
Effective Volume(L)		230	
Working Pressure(Bar)		0.9	
Relief Valve Setting(Bar)		1.5	
Rupture Disc Setting(Bar)		13.8	
Size(L×W×H)mm		680×680×1622	
Empty Weight(kg)		~160	
Filling Weight (kg)	LOX	~~	
	LIN	186	
	LAR	~~	
	LNG	~~	
	LCO ₂	~~	
NER(%Per Day)≤		1.96	
Level Gauge		Float/Digital Display	



Welded Insulated Cylinders(Horizontal)

Specifications		HG-IG-DPW650-V-14.4		HG-IG-DPW650-499-23
Geometric Volume(L)		410	499	499
Effective Volume(L)		369	449	474
Working Pressure(Bar)		14.4		23
Relief Valve Setting(Bar)		17.2		27.6
Rupture Disc Setting(Bar)		20.7		39
Outside Diameter(mm)		φ706		
Size(L×W×H)mm		1785×800×1035	2050×800×1035	2050×800×1035
Empty Weight(kg)		~310	~335	~378
Filling Weight (kg)	LOX	~~	~~	~511
	LIN	~~	~~	~364
	LAR	~~	~~	~629
	LNG	~157	~191	~~
	LCO ₂	~~	~~	~487
NER(%Per Day)≤		2.03	1.9	1.9
Level Gauge		Digital Display		

LIQUID HELIUM CYLINDER



LIQUID HELIUM CYLINDER(100L~500L)

Dimensions	Specifications	100	250	315	500
Geometric Volume	(L)	110	275	350	550
Nominal Capacity	(L)	100	250	315	500
Static Evaporation Rate	(%/d)	1.25%	1.00%	1.00%	1.00%
Operating Pressure	(psig)	10	10	10	10
Diameter	(mm)	610	860	860	1100
Height	(mm)	1527	1712	1835	1821
The flange to the length of the tank bottom	(mm)	1132	1310	1473	1421
Net Weight	(kg)	113	180	192	277
Chief Relief Valve	(psig)	10	10	10	10
Secondary Relief Valve	(psig)	12	12	12	12

LIQUID NITROGEN TANKS(YDS TYPE)



Liquid nitrogen tanks are generally divided into liquid nitrogen storage tanks and liquid nitrogen transportation tanks. The storage tank is mainly used for the static storage of indoor liquid nitrogen, and is not suitable for long-distance transportation under working conditions; in order to meet the transportation conditions, the liquid nitrogen transportation tank has a special shock-proof design. In addition to static storage, it can also be used for transportation when filled with liquid nitrogen, but severe collisions and vibrations should also be avoided.

Cylinder Model	O.D(mm) of Cylinder Mouth	O.D(mm) of Body	Height(mm)	Net Weight(kg)	Gross Weight(kg)
YDS-2-35	35	220	420	2.8	4.8
YDS-3	50	220	430	3.2	4.9
YDS-6	50	300	510	5.0	7.5
YDS-10	50	300	550	5.4	8.0
YDS-10B	50	300	550	5.8	8.2
YDS-15	50	360	603	8.1	10.4
YDS-20	50	360	607	8.6	11.5
YDS-30	50	435	680	14.0	17.2
YDS-30B	50	435	680	14.5	18.2
YDS-35	50	435	690	15.3	19.0
YDS-35B	50	435	690	15.8	19.5
YDS-50B	50	495	855	19.5	28.0
YDS-10-80	80	300	542	5.6	7.7
YDS-10-125	125	300	538	5.7	7.8
YDS-10-210	210	300	533	5.7	7.8
YDS-15-80	80	360	586	8.2	11.4
YDS-15-125	125	360	570	8.6	11.0
YDS-20-80	80	360	595	8.8	11.3
YDS-20-125	125	360	588	8.8	12.4
YDS-30-80	80	435	665	14.0	17.8
YDS-30-125	125	435	660	14.0	17.9
YDS-30-210	210	435	655	14.7	18.5
YDS-35-80	80	435	690	15.3	19.5
YDS-35-125	125	435	690	15.3	20.0
YDS-50B-80	80	495	850	19.6	29.0
YDS-50B-125	125	495	842	20.0	30.0
YDS-50B-210	210	495	840	20.5	31.0
YDS-100B-210	210	610	1103	30.6	---
YDS-100B-125	125	610	1106	30.0	---

CRYOGENIC FREEZER

Product Introduction

The vapor-phase liquid nitrogen biological sample storage container offers a standard storage capacity ranging from 20,000 to 94,000 vials of 1.2ml/ 2.0ml. Biological samples are securely stored in a low-temperature nitrogen environment at -180°C to -190°C . The container's excellent vacuum performance and operational control ensure the long-term, safe, and effective storage of biological samples.

Product Features

- 1.Dry low-temperature nitrogen storage to prevent cross-contamination of biological samples.
- 2.Temperature range within the entire biological sample storage area is controlled between -180°C and -190°C .
- 3.Full-size operation platform with an integrated flip-step platform.
- 4.10-inch high-definition touchscreen for real-time control and display of the storage tank's operating status.
- 5.By-Pass (pipeline exhaust) function.
- 6.Intelligent automatic defogging function.
- 7.Platinum temperature probe (optional second temperature probe) with a temperature resolution of $\pm 0.1^{\circ}\text{C}$.
- 8.Differential pressure liquid level gauge with a level resolution of $\pm 1\text{mm}$.
- 9.Optional iPoint™ cloud control system for the entire series.
- 10.Pre-set installation position for a cryogenic rack lifting device, with an optional lifting device to enhance operational convenience.



	Cryofreezer Series	Units	CF-200	CF-400	CF-800	CF-940
Appearance	Total Height	mm	1764	1781	1806	1961
	First Step Height	mm	300	250	285	285
	First Step to Tank Mouth Height	mm	1107	1164	1156	1311
	Second Step Height	mm	-	470	570	570
	Second Step to Tank Mouth Height	mm	-	966	871	1046
	Outer Diameter	mm	880	1160	1530	1530
	Internal Working Diameter	mm	750	1030	1400	1400
	Internal Effective Height	mm	755	755	755	910
Installation	Tank Mouth Diameter	mm	330	458	623	623
	Equipment Empty Weight (excluding storage racks)	kg	305	425	710	780
Usage	Transport Dimensions(L×W×H)	mm	980x880x1764	1367x1160x1781	1749x1530x1806	1749x1530x1961
	Total Capacity	L	481	916	1755	2004
	Liquid Nitrogen Capacity (below the turntable)	L	62	157	327	327
	Liquid Nitrogen Consumption	L/ Day	8	9	12	12
	Liquid Nitrogen Supply	22psi				
	Power Supply	AC220V/50Hz				
Capacity	Maximum Cryovial Storage Capacity (1.2ml & 2.0ml)	pcs	19,500	41,600	80,925	93,375
	Number of 100-cell Cryo Racks	pcs	14	30	60	60
	Number of 25-cell Cryo Racks	pcs	4	8	9	9
	Number of Cryo Rack Layers	layers	13	13	13	15

HANDY CRYOGENIC FREEZER

Product Introduction

The intelligent vapor-phase liquid nitrogen biological sample storage container offers a standard storage capacity ranging from 20,000 to 94,000 vials of 1.2ml/2.0ml. Biological samples are securely stored in a low-temperature nitrogen environment at -180°C to -190°C.

At the same time, the container minimizes the physical workload of operators by enabling automated lid opening and closing, controlled rotation of the inner storage cylinder, and assisted lifting of cryo racks.

Its excellent vacuum performance and operational control ensure the long-term, safe, and effective storage of biological samples.

Innovative Features

1. Equipped with an automated assisted lifting device
2. Integrated automatic rotation and positioning function
3. One-touch automatic lid opening design

Product Features

1. Dry low-temperature nitrogen storage to prevent cross-contamination of biological samples.
2. Temperature range within the entire biological sample storage area is controlled between -180°C and -190°C.
3. Full-size operation platform with an integrated flip-step platform.
4. 10-inch high-definition touchscreen for real-time control and display of the storage tank's operating status.
5. By-Pass (pipeline exhaust) function.
6. Intelligent automatic defogging function.
7. Platinum temperature probe (optional second temperature probe) with a temperature resolution of $\pm 0.1^{\circ}\text{C}$.
8. Differential pressure liquid level gauge with a level resolution of $\pm 1\text{mm}$.
9. Optional iPoint™ cloud control system for the entire series.
10. Pre-set installation position for a cryogenic rack lifting device, with an optional lifting device to enhance operational convenience.



	Cryofreezer Series	Units	HCF-200	HCF-400	HCF-800	HCF-940
Appearance	Total Height	mm	1764	1781	1806	1961
	First Step Height	mm	300	250	285	285
	First Step to Tank Mouth Height	mm	1107	1164	1156	1311
	Second Step Height	mm	-	470	570	570
	Second Step to Tank Mouth Height	mm	-	966	871	1046
	Outer Diameter	mm	880	1160	1530	1530
	Internal Working Diameter	mm	750	1030	1400	1400
	Internal Effective Height	mm	755	755	755	910
Installation	Tank Mouth Diameter	mm	330	458	623	623
	Equipment Empty Weight (excluding storage racks)	kg	305	425	710	780
	Transport Dimensions (LxWxH)	mm	980x880x1764	1367x1160x1781	1749x1530x1806	1749x1530x1961
Usage	Total Capacity	L	481	916	1755	2004
	Liquid Nitrogen Capacity (below the turntable)	L	62	157	327	327
	Liquid Nitrogen Consumption	L/ Day	9	10	13	13
	Liquid Nitrogen Supply	22psi				
Capacity	Power Supply	AC220V/50Hz				
	Maximum Cryovial Storage Capacity (1.2ml & 2.0ml)	pcs	19,500	41,600	80,925	93,375
	Number of 100-cell Cryo Racks	pcs	14	30	60	60
	Number of 25-cell Cryo Racks	pcs	4	8	9	9
	Number of Cryo Rack Layers	layers	13	13	13	15

JUST TRUST **US** DO THE BEST
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