# **Chart Global Presence**







# Golden Phoenix Liquid Nitrogen Container



# Chart BioMedical (Chengdu) Co., Ltd.

Add: No.48, Qingma Road, South Section, Chengdu Modern Industrial Park, Pixian, Chengdu, 611730, Sichuan, China Tel:+86-28-87805257 +86-28-87805279 Fax: +86-28-87805258

Website: www.chart-gp.com www.chartbio-china.com E-mail: customerservice.china@chartindustries.com





Chengdu China

Established in 1976, Chart BioMedical (Chengdu) Co., Ltd. (Former Chengdu Golden Phoenix Liquid Nitrogen Container Co., Ltd.) is a manufacture and trader specialized in the research, development and production of liquid nitrogen container. We were invested by China Ministry of Agriculture, and now a division of Chart Industries.

As a result of our high quality products and outstanding customer service in the past 30 years, we have become a national technology leader, with the largest production and marketing scale and the most complete varieties. Since 1981, our product has won several State Quality Silver Awards and the honors of high quality product from different grades of country, province and city. Besides, it has been assessed to be "Sichuan Famous Brand Product" 6 times successively since 2002. At the beginning of 2008, "Golden Phoenix" was entitled to be "Sichuan Famous Trademark". With continuous improvement of our marketing capability, our products are greatly appreciated in a variety of different markets throughout the world.

In 2001, GP began to sell products overseas, and now has gained a global sales network reaching more than 60 countries.

In 2007, GP moved from Chengdu Phoenix Mountain to Pixian Chengdu Modern Industrial Park, further expanding our scale and capacity.

In 2009, GP became the only factory in China of the BioMedical Division of the world's leading cryogenic equipment manufacture --- Chart Industries.

In 2011, new high-end production line was put into use, bringing more excellent products and service.

Dedicated to achieving 100% Customer Satisfaction, we have acquired the authentication of ISO9001 and ISO 13485 Quality Management System. We will continuously exceed ourselves and create value for customers, providing higher quality products and services!



• Since 2002, Golden Phoenix liquid nitrogen container has been awarded the title of "Sichuan Famous Brand Product" six times successively (awarded every other year).







• We are the only enterprise that acquires the authentication of ISO 9001 and ISO 13485 International Quality Management System in the same industry.

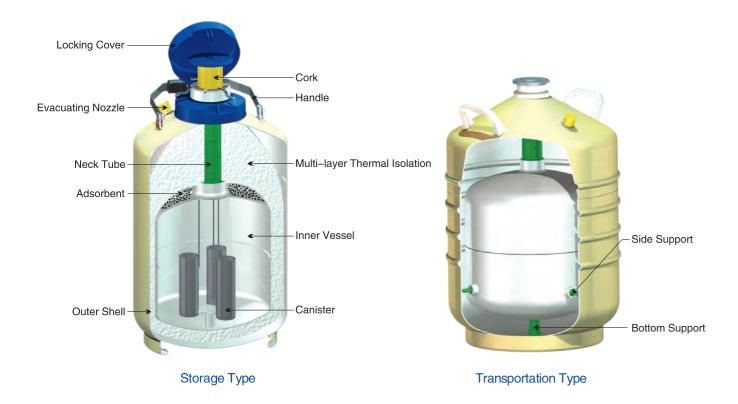


Our auto-boosting liquid nitrogen pump, pushcart and double plug body liquid nitrogen biological container all obtained the letter patent of utility model.

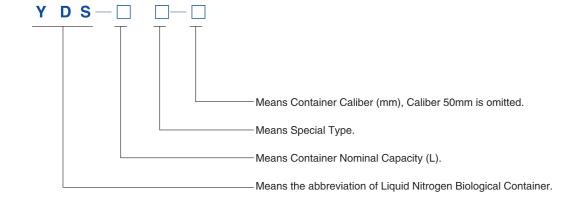


• In Jan.2008, "Golden Phoenix" was entitled to be "Sichuan Famous Trademark"





# **YDS Coding System Explanation**



E.g.1: YDS-30 means liquid nitrogen biological container for storage of 30L nominal capacity with 50mm caliber.

E.g.2: YDS-50B-80 means liquid nitrogen biological container for transportation of 50L nominal capacity with 80mm caliber.

These small capacity containers are designed for transferring biological samples stored via manual work. They are light, portable and economical, with lower static evaporation loss.

#### Main Features:

- High-strength aluminum alloy structure, light empty weight;
- Multi–layer thermal isolation design;
- Hinged handle, portable;
- Optional locking cover to protect stored biological samples;
- Protective jacket to prevent collision, portable;
- Two-year vacuum warranty.













# **Specifications**

Model		Unit	YDS-1-30	YDS-2-30	YDS-3	YDS-6	YDS-10	YDS-10-80
Capacity		L	1.0	2.0	3.15	6.0	10.0	10.0
Empty Weight		kg	2.0	2.9	3.4	5.0	6.2	6.5
Neck Diameter		mm	30	30	50	50	50	80
Outer Diameter		mm	180	224	224	287	303	303
Height		mm	315	360	420	435	530	540
Static Evaporation Lo	SS	L/d	0.06	0.06	0.10	0.10	0.10	0.18
Static Hold Time		d	16	32	31	63	101	57
Canister Outer Diamete	er	mm	26	19	38	38	38	63
Canister Height		mm	120	120	120	120	120	120
Numbers of Caniste	rs	ea	1	3	6	6	6	6
Straw Holding Capacity	0.5ml	ea	60	90	792	792	792	2040
(single level)	0.25ml	ea	120	204	1788	1788	1788	4584
Straw Holding Capacity	0.5ml	ea	_	_	_	_	_	_
(double level)	0.25ml	ea	-	_	_	_	_	_
Optional Locking Co	over	ea	-	$\sqrt{}$	$\sqrt{}$	$\checkmark$	$\checkmark$	$\checkmark$







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These moderate capacity containers are the best choice for customers who will store biological samples or liquid nitrogen for an extended period of time under static environment.



## **Specifications**

Model		Unit	YDS-10A	YDS-10-90	YDS-12-90	YDS-13	YDS-15	YDS-16
Capacity		L	10.0	10.0	12.0	13.0	16.0	17.0
Empty Weight		kg	6.5	6.8	9.0	7.0	8.2	8.5
Neck Diameter		mm	50	90	90	50	50	50
Outer Diameter		mm	287	303	406	303	355	355
Height		mm	605	538	470	600	600	620
Static Evaporation Lo	oss	L/d	0.09	0.18	0.26	0.10	0.10	0.10
Static Hold Time		d	110	55	45	131	161	171
Canister Outer Diame	Canister Outer Diameter		38	70	70/43	38	38	38
Canister Height		mm	276	120	127	276	120	276
Numbers of Caniste	rs	ea	6	6	6/9	6	6	6
Straw Holding Capacity	0.5ml	ea	-	2588	2588/1566	-	792	_
(single level)	0.25ml	ea	-	6192	6192/3438	-	1788	_
Straw Holding Capacity	0.5ml	ea	1284	_	_	1284	_	1284
(double level)	0.25ml	ea	2832	_	_	2832	_	2834
Numbers of Canes	;	ea	-	-	-	24	-	24
Numbers of Vials		ea	_	_	_	120	_	120
Optional Locking Co	ver	ea	V	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$

#### Accessories





#### Main Features:

- High-strength aluminum alloy structure;
- Multi-layer thermal isolation design;
- Optional locking cover to protect stored biological samples;
- Protective jacket to prevent collision;
- Two-year vacuum warranty.



# **Specifications**

Model	Model		YDS-20	YDS-30	YDS-30-80	YDS-30-90	YDS-30-125
Capacity		L	20.0	31.5	31.5	31.5	31.5
Empty Weight		kg	11.2	12.9	13.5	13.6	14.2
Neck Diameter		mm	50	50	80	90	125
Outer Diameter		mm	409	446	446	446	446
Height		mm	650	670	680	680	685
Static Evaporation Lo	oss	L/d	0.10	0.11	0.18	0.18	0.28
Static Hold Time		d	202	295	174	174	112
Canister Outer Diame	eter	mm	38	38	63	70	97
Canister Height		mm	120/276	120/276	120/276	120/276	120/276
Numbers of Caniste	ers	ea	6	6	6	6	6
Straw Holding Capacity	0.5ml	ea	792	792	2244	2588	5124
(single level)	0.25ml	ea	1788	1788	5022	6192	11952
Straw Holding Capacity	0.5ml	ea	1284	1284	3624	4920	9048
(double level)	0.25ml	ea	2832	2832	8460	10688	19944
Numbers of Canes	5	ea	24	24	72	90	198
Numbers of Vials		ea	120	120	360	450	990
Optional Locking C	over	ea	$\checkmark$	$\sqrt{}$	$\checkmark$	$\checkmark$	$\checkmark$







Level Monitor



These large capacity containers feature longer hold time and are ideal for customers with high storage volume under static environment.

#### Main Features:

- High-strength aluminum alloy structure;
- Multi–layer thermal isolation design;
- Optional locking cover to protect stored biological samples;
- Protective jacket to prevent collision;
- Two-year vacuum warranty.



#### **Specifications**

Model		Unit	YDS-35	YDS-35-80	YDS-35-125	YDS-47-127
Capacity		L	35.5	35.5	35.5	47.0
Empty Weight		kg	13.8	14.1	15.1	19.0
Neck Diameter		mm	50	80	125	127
Outer Diameter		mm	473	473	473	500
Height		mm	680	680	690	675
Static Evaporation Lo	oss	L/d	0.11	0.19	0.29	0.33
Static Hold Time	Static Hold Time		333	187	123	142
Canister Outer Diame	Canister Outer Diameter		38	63	97	103
Canister Height	Canister Height		120/276	120/276	120/276	120/276
Numbers of Caniste	rs	ea	6	6	6	6
Straw Holding Capacity	0.5ml	ea	792	2244	5124	6702
(single level)	0.25ml	ea	1788	5022	11952	14046
Straw Holding Capacity	0.5ml	ea	1284	3624	9048	10704
(double level)	0.25ml	ea	2832	8460	19944	23604
Numbers of Canes	5	ea	24	72	198	204
Numbers of Vials		ea	120	360	990	1020
Optional Locking C	over	ea	$\checkmark$	$\checkmark$	$\checkmark$	$\sqrt{}$

#### Accessories



Roller Base



This series is designed for sample transportation with special side or bottom reinforcements.

#### Main Features:

- High-strength aluminum alloy structure;
- Multi–layer thermal isolation design;
- Optional locking cover to protect stored biological samples;
- Optional roller base to move the container easily;
- Protective jacket to prevent collision;
- Two-year vacuum warranty.



# **Specifications**

Model		Unit	YDS-30B	YDS-30B-80	YDS-35B	YDS-35B-80
Capacity		L	31.5	31.5	35.5	35.5
Empty Weight		kg	13.1	13.7	14.0	14.3
Neck Diameter		mm	50	80	50	80
Outer Diameter		mm	446	446	473	473
Height		mm	675	680	680	680
Static Evaporation Lo	oss	L/d	0.16	0.23	0.17	0.23
Static Hold Time		d	191	136	215	154
Canister Outer Diame	eter	mm	38	63	38	63
Canister Height		mm	120/276	120/276	120/276	120/276
Numbers of Caniste	rs	ea	6	6	6	6
Straw Holding Capacity	0.5ml	ea	792	2244	792	2244
(single level)	0.25ml	ea	1788	5022	1788	5022
Straw Holding Capacity	0.5ml	ea	1284	3624	1284	3624
(double level)	0.25ml	ea	2832	8460	2832	8460
Numbers of Canes	5	ea	24	72	24	72
Numbers of Vials		ea	120	360	120	360
Optional Locking C	over	ea	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$









This series is designed for sample transportation with special side or bottom reinforcements.

#### Main Features:

- High-strength aluminum alloy structure;
- Multi–layer thermal isolation design;
- Optional locking cover to protect stored biological samples;
- Optional roller base to move the container easily;
- Protective jacket to prevent collision;
- Two-year vacuum warranty.



#### **Specifications**

Model		Unit	YDS-35B-125	YDS-50B	YDS-50B-80	YDS-50B-125	YDS-50B-200
Capacity		L	35.5	50.0	50.0	50.0	50.0
Empty Weight		kg	15.3	21.1	21.0	21.5	22.0
Neck Diameter		mm	125	50	80	125	200
Outer Diameter		mm	473	500	500	500	500
Height		mm	690	805	805	785	770
Static Evaporation Lo	oss	L/d	0.35	0.20	0.26	0.37	0.57
Static Hold Time		d	102	252	189	134	87
Canister Outer Diame	Canister Outer Diameter		97	38	63	97	_
Canister Height	Canister Height		120/276	120/276	120/276	120/276	-
Numbers of Caniste	rs	ea	6	6	6	6	_
Straw Holding Capacity	0.5ml	ea	5124	792	2244	5124	-
(single level)	0.25ml	ea	11952	1788	5022	11952	-
Straw Holding Capacity	0.5ml	ea	9048	1284	3624	9048	-
(double level)	0.25ml	ea	19944	2832	8460	19944	_
Numbers of Canes	;	ea	198	24	72	198	-
Numbers of Vials		ea	990	120	360	990	
Optional Locking C	over	ea	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	-

#### Accessories





This series of containers feature in their large calibers, applying to make short-term storage of large biological products and cold processing for machine accessories.

#### Main Features:

- High-strength aluminum alloy structure;
- Multi-layer thermal isolation design;
- Protective jacket to prevent collision;
- Two-year vacuum warranty.



# **Specifications**

Model		Unit	YDS-5-200	YDS-10-125	YDS-13-125	YDS-15-125	YDS-35-200
Capacity		L	5.0	10.0	13.0	16.0	35.5
Empty Weight		kg	5.3	7.2	7.9	8.9	15.3
Neck Diameter		mm	200	125	125	125	200
Outer Diameter		mm	287	303	303	355	473
Height		mm	320	535	610	610	670
Static Evaporation Lo	oss	L/d	1.67	0.30	0.30	0.30	0.56
Static Hold Time		d	3	33	43	53	63
Canister Outer Diamet	Canister Outer Diameter		_	_	-	_	_
Canister Height		mm	-	-	-	-	-
Numbers of Caniste	rs	ea	_	_	_	-	_
Straw Holding Capacity	0.5ml	ea	-	-	-	-	-
(single level)	0.25ml	ea	-	-	-	-	-
Straw Holding Capacity	0.5ml	ea	_	_	-	_	_
(double level)	0.25ml	ea	_	_	_	_	_
Optional Locking C	over	ea	-	-	-	$\checkmark$	$\checkmark$







Level Monitor

This series is designed to store large quantities of vials while maintaining low liquid nitrogen consumption. These containers are ideally suited for use in medical and biological science and research fields.

#### Main Features:

- Optional locking cover to protect stored biological samples;
- Racks to provide large storing capacity;
- Optional roller base to move the container easily;
- Optional level monitor automatically displays temperature in container, and send audible alarm when temperature exceeds control range, thus protect stored samples.



# **Specifications**

Model	Unit	YDS-47-127	YDS-65-216	YDS-120-216	YDS-175-216
Capacity	L	47.0	65.0	121.0	175.0
Empty Weight	kg	19.0	27.5	43.0	54.5
Neck Diameter	mm	127	216	216	216
Outer Diameter	mm	500	573	573	676
Height	mm	675	710	1000	1040
Static Evaporation Loss	L/d	0.33	0.79	0.87	0.87
Static Hold Time	d	142	82	139	202
Numbers of Racks	ea	7	5	5	7
Measurement of Rack	mm	82 × 84	142 × 144	142 × 144	142 × 144
Measurement of Box	mm	76×76	134 × 134	134 × 134	134 × 134
Numbers of Vials	ea	875	2025	4050	5670
Optional Locking Cover	ea	$\checkmark$	$\sqrt{}$	$\sqrt{}$	V

# Accessories





Carrying Cart

This series is designed specifically for liquid nitrogen storage, and characterised by their small calibers and low static evaporation loss.

#### Main Features:

- High-strength aluminum alloy structure;
- Multi-layer thermal isolation design;
- Protective jacket to prevent collision;



## **Specifications**

Model	Unit	YDS-10 L	YDS-20L	YDS-30L	YDS-35L	YDS-50L
Capacity	L	10.0	20. 0	31.5	35. 5	50.0
Empty Weight	kg	6. 2	11. 2	12. 9	13.8	21. 1
Neck Diameter	mm	50	50	50	50	50
Outer Diameter	mm	303	409	446	473	500
Height	mm	530	650	670	680	805
Static Evaporation Loss	L/d	0.10	0.10	0.10	0.11	0.20
Static Hold Time	d	101	202	295	333	252
Canister Outer Diameter	mm	-	_	_	_	_
Canister Height	mm	-	-	-	-	-
Numbers of Canisters	ea	-	_	_	_	_
Straw Holding Capacity	ea	-	-	-	-	-
Optional Locking Cover	ea	_	_	_	_	_







Liquid nitrogen absorbent is designed in the vessel of this series of containers, which absorbs and stores liquid nitrogen inside. Even if the container is turned over during transportation, liquid nitrogen never spills out. With lower static evaporation loss, these containers are especially suitable for air transportation.

#### Main Features:

- High-strength aluminum alloy structure, light empty weight;
- Optional locking cover to protect stored biological samples;
- Protective jacket to prevent collision;
- Two-year vacuum warranty.







## **Specifications**

Model		Unit	YDH-3	YDH-8-80	YDH-8-90
Capacity		L	3.5	8.0	8.0
Empty Weight		kg	5.2	8.9	11.4
Neck Diameter		mm	50	80	90
Outer Diameter		mm	224	303	406
Height		mm	505	590	485
Static Evaporation Lo	oss	L/d	0.14	0.22	0.35
Static Hold Time	Static Hold Time		25	36	23
Canister Outer Diame	eter	mm	38	70	70
Canister Height		mm	276	276	120
Numbers of Caniste	ers	ea	1	1	6
Straw Holding Capacity	0.5ml	ea	214	820	2588
Straw Holding Capacity	0.25ml	ea	472	1780	6192
Numbers of Canes	5	ea	4	15	-
Numbers of Vials		ea	20	75	-
Optional Locking C	over	ea	$\sqrt{}$	V	$\sqrt{}$

Remarks: "YDH" is the abbreviation of "Liquid Nitrogen Dry Shipper" in Chinese.

#### **Accessories**







Canister

The stainless steel pushcart makes it smooth to move large liquid nitrogen containers. Tipping Stand can be used for pouring liquid nitrogen.





#### **Specifications**

Mode	Model		YDC-470	YDC-470F	YDC-470F-30
Weigh	Weight		5.5	8.5	8.5
Range of Cor	ntainers	L	20 ~ 50	35	30
Capacity Dimension	Outer Diameter	mm	600	600	600
Capacity Dimension	Height	mm	900	692	692
Max. Carrying	Max. Carrying Capacity		70	70	70

Remarks: "YDC" is the abbreviation of "Liquid Nitrogen Pushcart" in Chinese.

# **Auto-boosting Liquid Nitrogen Pump**

The product maintains a lower evaporation loss and features a safety release. Using a hand-aspired ball (ZYB-5) or foot cylinder (ZYB-8), a small quantity of liquid nitrogen inside will be vaporized and pressurized, which force liquid nitrogen through the spout.





#### **Specifications**

Model	Unit	ZYB-5	ZYB-8
Height	mm	1050.0	950.0
Weight	kg	3.5	7.4
Drainage Capacity	L/min	≥5	≥8
Operating Frequency	Time/min	30–40	50-60
Operating Way	-	By hand	By foot

Remarks: "ZYB" is the abbreviation of "Auto-boosting Liquid Nitrogen Pump" in Chinese.

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