



新乡市众盼鑫实业有限公司

XINXIANG ZHONGPANXIN INDUSTRY CO., LTD

服务至上追求卓越品质
Service Foremost, pursuing top quality



ZHONGPANXIN



致用户 (TO USERS)

尊敬的用户：

感谢您对我公司的信任，选购我公司的液氮生物容器产品。在您使用
我公司产品前，请先仔细阅读本使用说明书。谢谢合作！

新乡市众盼鑫实业有限公司

Dear Users,

Thank you for your trust in our company and purchasing liquid nitrogen dewars made by us. Before you use these dewars, please read this operation manual carefully. Thank you for your cooperation!

Xinxiang Zhongpanxin Industry Co., Ltd.

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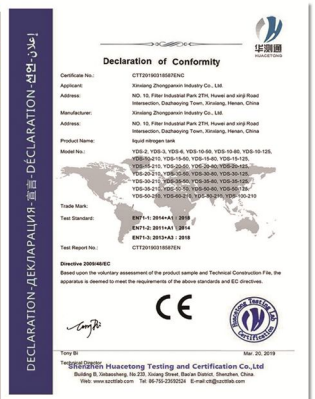
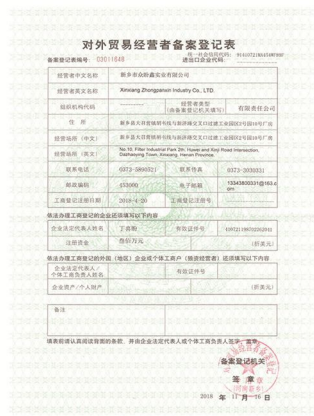
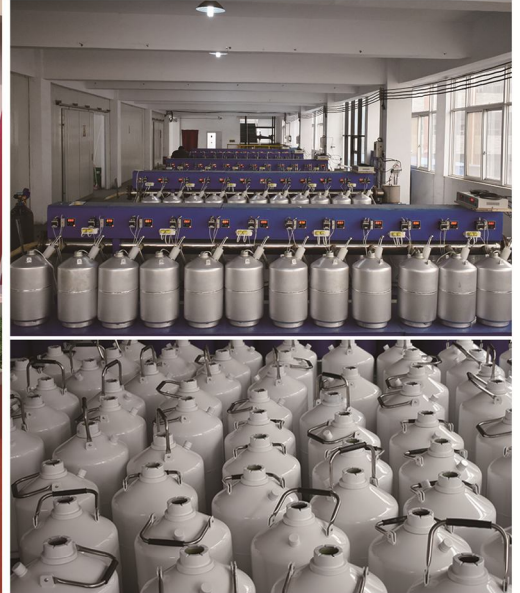
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公司简介 COMPANY BRIEF

众盼鑫液氮罐是新乡市众盼鑫实业有限公司的系列产品，众盼鑫是一家集研制、开发、生产和销售为一体的专业化仪器设备公司。众盼鑫所生产的液氮罐（液氮生物低温容器）广泛用于畜牧业良种家畜精液的冷冻贮存、医疗卫生行业的人体器官，皮肤，血液，细胞的低温保存、生物工程、工业冷装配、金属材料冷处理、低温粉碎、美容行业、液氮冰淇淋行业及超导等方面。随着科学技术的发展和工农业生产的需要，它将得到迅速推广和应用，并展现出美好的前景。

随着众盼鑫液氮罐技术的提升和在行业内知名度的提高，我们在扩大国内销售的同时，积极拓展国际市场，产品已出口到美国、德国、日本、土耳其、印度、墨西哥、越南、泰国等二十多个国家。

众盼鑫坚持认真做好产品，用心做好服务，竭诚为您效劳，欢迎来厂指导，洽谈合作。

Zhongpanxin Liquid Nitrogen Tank is a series of storage containers made by Xinxiang Zhongpanxin Industry Co., Ltd., which is a professional equipment company with research and development team, production and sales departments.

The liquid nitrogen tanks (liquid nitrogen cryogenic container) produced by Zhongpanxin are widely used for the cryopreservation of semen in the livestock industry, also human organs, skin, blood and cells in the medical and health industry, Bio-engineering, industrial cold assembly, metal materials cold treatment, low temperature pulverization, beauty industry, liquid nitrogen ice cream industry and superconducting. Due to the development of science and technology, the industrial and agricultural production has rapidly increased the demands of liquid nitrogen tank in the market, it will show a brighter future.

With the improvement of our liquid nitrogen tank technology and the public popularity in the industry, we are actively expanding the international market while expanding domestic sales. The products have been exported to the United States, Germany, Japan, Turkey, India, Mexico, Vietnam, Thailand and more than 20 countries.

Zhong Panxin insists on Best Quality, Best Service. We accept non-standard customization. Welcome to Panxin Xin for visit, consult and discuss further!

TERMINOLOGY

产品部分名词术语

序号/NO	术语/TERMINOLOGY	定义/DEFINITION
1	几何容积 GEOMETRIC VOLUME	由内胆内缘几何尺寸（不含颈管）所限定的空间体积。 Volume of space defined by the geometric size of the inside wall of the inner vessel (excluding that of neck tube)
2	口径 CALIBE	颈管的内直径。 Linner diameter of neck tube
3	外径 OUTSIDEDIAMETER	产品外壳筒体不含筋的外直径。 Outside diameter of outer shell (Excluding the rib)
4	高度 HEIGHT	产品外形不含盖塞和提筒沿筒体轴向的最大长度。 Maximum axial length of the shell (excluding the plug and canister)
5	空重 EMPTY WEIGHT	产品在内胆为室温空气，带盖塞，不放提筒时的质量。 Weight of dewar with plug at the ambient temperature (without canister)
6	液氮吸收体 ADSORBENT	吸附液氮的载体 Adsorbent of liquid nitrogen
7	产品寿命 PRODUCT LIFE	从产品出厂使用至液氮保存期低于出厂指标40%的时间间隔。 Time Starts from being sold to storage volume of liquid nitrogen lower to 40% .
8	吸附容积 ADSORBENT CAPACITY	液氮吸收体吸附液氮达到饱和状态时，所吸附的液氮体积。 The volume of liquid nitrogen which be absorbed when it get saturated adsorption.
9	静态蒸发损失试验 TEST OF STATIC EVAPORATION LOSS	液氮吸收体吸附液氮并达热平衡后，在静置状态下测定某段时间内液氮吸收体中液氮蒸发损失的试验。 The test of liquid nitrogen evaporate loss at a certain time under the static situation During the time liquid nitrogen adsorbate get full and meantime reaches thermal balance.
10	静态液氮日蒸发量 DAILY STATIC EEVAPORATION LOSS MASS	静态蒸发损失试验中，液氮吸收体中液氮间隔一天的蒸发量（此值为常态下的参考值） Evaporation Loss mass of liquid nitrogen in Liquid Nitrogen Adsorberevery two days during the test of liquid nitrogen loss
11	静态液氮保存期 STATIC HOLDING TIME OF LIQUID NITROGEN	产品注入液氮预冷，不放提筒达到热平衡后，再盛满液氮静态放置全部挥发完的天数。 Days for the thorough evaporation of the statically stored liquid nitrogen in the fully re-filled dewar after being pre-cooled by liquid nitrogen and reach its thermal balance (without canister)



液氮冷冻仪

Liquid nitrogen spray



It consists of a frozen head, a conveying tube, a liquid nitrogen cup and a handle. The pressure formed by the evaporation of liquid nitrogen will push liquid nitrogen flows from the liquid nitrogen cup into the cold head through the conveying tube, achieving the effect of cryotherapy. (Give 9 frozen heads)

液氮枪美容常用规格尺寸说明

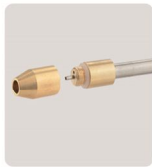
Specifications and Dimensions of Liquid Nitrogen Gun Spray for Beauty

液氮冷冻治疗仪的组成

注：配送9个冷冻头

Composition of liquid nitrogen cryotherapy apparatus
Note: 9 frozen heads are matched

由冷头、输液管、液氮杯、把手四部分组成。依靠液氮蒸发所形成的压力，使液氮从液氮杯中通过输液管流入冷头，从而达到冷冻治疗的效果。（配送9个冷冻头）



1.

按实际需要换好冷头
Change the frozen head according to needs



2.

打开液氮杯，冲入液氮至五分之四容积处
Open the liquid nitrogen cup and flush in the liquid nitrogen. To four fifths of the volume



3.

治疗时，只需用拇指按住把手上的小孔，冷冻头内有液氮喷出，即可进行治疗。

During the treatment, only need to push the small hole on the handle, then liquid nitrogen will gush out from the frozen head, so that the treatment could be carried out.

液氮冷冻笔

Liquid nitrogen freezer pen



液氮笔美容常用规格尺寸说明

Specifications and Dimensions of Liquid Nitrogen Pen for Beauty

液氮笔的组成

七个型号

Composition of liquid nitrogen pen: Seven models

冷冻头有传热效果好的铜制成。按照冷冻接触面积的直径大小分：1毫米、1.5毫米、2毫米、3毫米、4毫米、5毫米、6毫米。

The frozen head is made of copper which has good heat transfer performance. According to the diameter of the frozen area to classify the seven models: 1 mm, 1.5 mm, 2 mm, 3 mm, 4 mm, 5 mm, 6 mm.

脚踏式液氮泵的选用/Selection of pedal liquid nitrogen pump:



有广大客户在使用液氮时，希望能把液氮从容器里输送到某个空间或物质上面做冷却，如果直接购买自增压液氮容器又感到资金太高，为了解决这小用量、高成本的问题，我公司隆重推出液氮泵来满足客户的要求。

In order to solve the problem of low consumption and high cost of self-pressurized liquid nitrogen vessel, our company has solemnly launched liquid nitrogen pump to meet customer's requirements, It is we hope to transfer liquid nitrogen from the container to a certain space or material for cooling during the process of using liquid nitrogen.

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脚踏式液氮泵专为实验室等小量液氮输出而设计。

Pedaled liquid nitrogen Pump is designed for small capacity liquid nitrogen output in Laboratory etc.

种类：液氮泵

Type: liquid nitrogen pump

型号：YDB-B型液氮泵

Model: YDB-B liquid nitrogen pump

高度：940MM

Height: 940mm

空重：2KG

Empty weight: 2Kg

输液速率：≥8升/钟

Conveying rate: > 8 liters/bell

扬程：3米。

Lift: 3 meters



METHODS OF TESTING AND CALCULATING STATIC EVAPORATION LOSS MASS 产品静态液氮保存期的测试、计算方法

1. 产品静态液氮保存期采用称重法测试。

Weight measurement method adopted for calculating static liquid nitrogen storage time.

2. 测试需在环境温度为 $20^{\circ}\text{C}\pm 3^{\circ}\text{C}$ 和常压情况下进行，同时，测试不能在直接通风的场地进行。

The testing must be conducted at the ambient temperature of $20\pm 3^{\circ}\text{C}$ and under the standard atmosphere pressure

3. 测试应在容器液氮充满率不低于50%（3L以下产品充满率为100%），不放提筒，盖上盖塞，静置48 h后，用称重法测出3d内被测产品的平均日蒸发量 q_m 。

The container to be tested should keep the liquid nitrogen in it at least 1/2 full of the container. (Capacity below 3 L should keep the liquid nitrogen 100% full), keep the plug in and place the canisters away for standing 24 hours. Then use weight measurement method to test the daily average evaporation loss mass at the unit q_m in 3 days.

4. 称重法所使用的衡器（台秤或电子式数字秤等）最大称量不应大于产品装满液氮时的5倍，其精度应优于或等于三千分之一。

The maximum capacity of apparatus weight measurement method use should not beyond 5 times as the weight of container full of liquid nitrogen, and accuracy should be better than 1/3000.

5. 产品静态液氮保存期 t 由下式计算：

Static liquid nitrogen evaporation storage time could be calculated as below formula:

公式中(where): t — 静态液氮保存期, d;

In the formula, T --- Static liquid nitrogen evaporation storage time(d)

q_m — 被测产品的日蒸发量, kg/d;

Q_m --- Daily evaporation of tested container (Kg/d)

m — 产品注满液氮时的总质量, kg;

M --- Total Weight of container full of liquid nitrogen(Kg)

m_e — 产品空重, kg。

M_e --- Weight of empty container (Kg)

$$t = \frac{m - m_e}{q_m}$$

注：产品静态液氮保存期的测试与计算均按GB/T 5458-1997标准执行。当未按上述规定的环境温度及大气压进行测试，或计量器具最小分度值与标准要求有差异时，计算数值与产品实际静态液氮保存期可能有偏差。

Notes: The Test and calculation of static liquid nitrogen storage time is according to the standard GB/T 5458-1997. The calculated value maybe different or wrong when the measuring condition such as ambient temperature, pressure was nonstandard, or Minimum display value in the apparatus slightly different to standard.

本产品装箱时附产品使用说明书、合格证等各1份，请用户在开箱时注意检查，如有疑问，请将信息于5个工作日内反馈回我公司销售部（联系方式见封底）。

Our Container is packed with one set of document including Operation Instruction, Inspection Certificate. Please check them when you open the packaging. If any question, please send it to our sales Dept. (Please see the contact ways on the outside paper box)

TRANSPORTATION METHOD:

运输方法

① 运输前应将各个提筒准确地固定在容器口的槽内，盖好颈塞。

Before transportation, the canister should be accurately fixed in the groove of the container mouth, and the neck plug should be covered well.

② 用汽车、火车运送时，不能躺放，为了防止翻到须用皮带固定，为了缓解冲击，应使用海绵或其它软垫垫底。

When container transporting by car or train, the container should be placed upright, Avoid turning over, the container should be fasten a belt. In order to alleviate the impact, you should use sponge or other cushion to place below the container.

③ 用飞机运送时，除严防容器翻到以外还要用木箱包装，以防飞机上升时，随着气压的下降，液氮迅速沸腾而造成异常情况。

When transported by airplane, in addition to preventing the container from turning over, it should also be packed in wooden boxes to prevent the liquid nitrogen boiling and other abnormal situation caused by the air pressure drops when airplane going up.

QUALITY GUARANTEE

产品质量保证范围

本公司生产的液氮生物容器产品在正常使用情况下，自用户收货之日算起，一年内如发现确因产品制造原因而影响使用的，按下述办法执行：

If the liquid nitrogen dewar produced in our company is operated correctly, my company guarantees that we will solve any problem arising from inferior fabrication of the dewar within one year calculated from the day when the user receives the inferiorly manufactured dewar as per the following manners:

1. 容器初次充注液氮时，如发现容器表面出现有大量冷凝水、结霜等异常现象，我公司负责免费维修或调换。

If the outer surface of the dewar is found to have a great deal of condensed water or frost after it is filled with liquid nitrogen for the first time, our company will repair or change the dewar for free.

2. 容器初次使用前进行测试时，如发现产品静态液氮保存期低于标准的规定，我公司负责免费维修或调换。

When the dewar is tested before using for the first time, our company will repair or replace the dewar for free if the static holding time of liquid nitrogen is shorter than the stipulated time.

3. 在一年内，当产品出现确属我公司制造上的质量问题，我公司负责对产品进行检查或维修。

Within one year, my company will examine or repair the dewar due to the inferior fabrication quality.

4. 若需维修或调换，必须发运附件齐全的容器，以及编号相符的产品合格证、购物凭证复印件等回公司检查办理。

If reparation or replacement of the dewar occurs, the dewar will be shipped back to my company with all the documents, including the quality certificate with the corresponding number and the copy of shopping vouchers.

MAINTENANCE OF CONTAINERS AND WASHING AND DRYING OF CONTAINERS

容器维护及容器的洗涤与干燥

容器的使用和维护 /The operation and maintenance

1. 放进和取出冷冻物品时，要尽量使罐口打开时间短，以减少液氮损耗量，也不要提筒完全提出来，免得影响物品的贮存效果。
When putting in and taking out frozen articles, try to make the opening time shorter, so as to reduce the loss of liquid nitrogen, and also not take out canisters completely so as not to affect the storage of the articles.
2. 严防过度冲击和碰撞，由于罐体处于高真空状态，外胆将承受周围大气反差的作用，因此容器（外胆）在过度冲击和碰撞不会产生凹陷，如果凹陷后蒸发性能不复，仍可使用，如蒸发性能恶化，即容器无法修复。
Strictly prevent excessive collision, because the tank body is in a high vacuum state, the outer shell will withstand ambient atmospheric contrast. Therefore, the container (outer shell) will not get sunk under condition of excessive impact and collision. If the evaporation performance can not recover after sunk, it can be used. Otherwise, the deterioration of evaporation performance means that the container can not be repaired.
3. 经常检查容器重量，及时了解液氮还能使用多少天，当液氮量减少到总容量的1/3时即时补充液氮，以免贮存物品坏死。
Check the weight of the container regularly to know how many days the liquid nitrogen can be used in time. When the liquid nitrogen amount is reduced to 1/3 of the total capacity, please refill liquid nitrogen immediately in case of necrosis of stored articles.
4. 发现容器颈部周围有出汗现象或附着白霜，即证明容器真空度已恶化，不能再用，应立即更换。
It was found that there was sweating or white frost around the neck of the container, which proves that the vacuum of the container has deteriorated and could not be used again. It should be replaced immediately.

容器的洗涤与干燥容器的使用和维护 /The use and maintenance of containers for washing and drying.

液氮容器在使用过程中，内胆中会慢慢积蓄水份，病繁殖杂菌，而混入液氮中，由于上述原因，会造成对内胆相当程度的腐蚀，同时杂菌的繁殖会降低精液的受精率，因此每年最好对液氮容器洗涤1-2次。

During the use of liquid nitrogen containers, water is slowly accumulated in the inner tank, and diseases breed miscellaneous bacteria get into liquid nitrogen. For the above reasons, it will cause considerable corrosion to the tank, and the reproduction of miscellaneous bacteria will reduce the fertilization rate of semen. Therefore, it is best to wash liquid nitrogen containers 1-2 times a year.

- 从容器中取出提筒及液氮，放置两天左右，容器内温度会上升到0℃左右。用40-50℃的温水注入内罐，然后用布擦洗。

Take out the canister and liquid nitrogen from the container and leave it for about two days. The temperature inside the container will rise to about 0℃. Filling with warm water of 40-50℃ into inner tank, then scrub with a cloth.

- 用清水冲洗。

Clean with water.

- 倒置容器，使其干燥，可采用自然风干和热风吹干的方法，如采用热风吹干时，其温度应限制在40-50℃之间应避免60℃以上的热风。

Invert the container and let it dry by natural air drying and hot air. If it is dried by hot air, the temperature of hot air should be limited to 40-50℃, not hot air above 60℃.

INSTRUCTIONS FOR USE OF PRODUCTS

产品使用须知

用户在使用产品前，应开箱检查产品外观质量，如发现容器外观有缺陷，在收到产品后5个工作日内，将此信息返回我公司销售部（联系方式见封底）代、经销单位则按协议有关条款执行。

Before using the dewar, users should open the cartons to check the whole appearance. If any defect to be found on it, please inform our company within 5 working days after receiving the dewar. Then the sales agency or distribution department shall solve the problem in accordance with the related clauses in the agreement.

容器只能用于充装液氮，不能充装液态空气和液氧，以免它们与容器内某些物质作用产生猛烈的燃烧。

Containers can only be used for storage of liquid nitrogen, can not be used for liquid air and liquid oxygen, in case that they interact with certain substances in the container and make a big blazing.

液氮是一种超低温液体（-196℃）如溅到皮肤上会引起类似烧伤，因此在灌充液氮和取出液氮时，应带上保暖手套，不能赤脚或穿拖鞋，以免液氮飞溅伤人。

Liquid nitrogen is a cryogenic liquid (-196℃) that causes similar burns if it splashes on the skin, so when it is filled with liquid nitrogen and take out liquid nitrogen, you should wear warm gloves, no barefoot or slippers, in case of liquid nitrogen spattering injuries.

禁止使用贮存罐作运输罐用。如果需要运输液氮，必须使用专用的液氮运输罐，如我公司生产的YDS-30B，就是专用的液氮运输罐。这种罐防振动特殊结构设计。

It is forbidden to use storage tanks as transport tanks. If you need transport liquid nitrogen, you must use special liquid nitrogen transport tanks, such as our YDS-30B, which is a special liquid nitrogen transport tank. This tank has special structure design for anti-vibration.

只能使用与厂配套的颈塞封闭罐口，不能用其他塞子代替，更不能使用密封的塞子。以免液氮持续蒸发而形成的氮气压力增高而导致容器的损坏。

The tank mouth only match with the original neck plug from factory, and the neck plug can not be replaced by others. In order to avoid the damage of the tank which caused by the continuous evaporation of liquid nitrogen and afterwards increase of nitrogen pressure, Sealed plugs are forbidden.

检查容器内液面高度时应用实心塑料小棒或小木棒插入底部，过5-10秒后取出。结霜的长度即是液面高度，千万不要用空心棒或塑料管，以防液氮由管内喷出伤人。

Please Insert solid plastic rods or wooden rods into the bottom when checking the liquid level in the container, and take them out after 5-10 seconds. The frosting length is the height of the liquid level. Never use hollow rods or plastic pipes, in case that liquid nitrogen through the pipes ejecting and hurting people.

氮气虽是无味、无臭、无毒的气体，但在通风不良的情况下，蒸发的氮气会造成室内空气氮含量增多，氧气含量相对减少对人体会引起窒息的危险，因此在液氮生物容器的存放地点和操作点应加强室内通风换气，保持空气新鲜。

Although nitrogen is odorless, tasteless and non-toxic, the evaporation of nitrogen under poor ventilation can make indoor nitrogen crease largely. The increase of nitrogen in the air and the relative decrease of oxygen content may cause suffocation hazard to human body. Therefore, the storage place and operation point of biological container should have good indoor ventilation to keep the air fresh.

颈管是液氮和冷冻物品进出口的通道，使用时切勿划伤管壁。颈管损坏，则容器无法维修。

The neck tube is the passage for import and export of liquid nitrogen and frozen articles. Do not scratch the wall of the tube when using it. If damaged, the container will not be able to repair.

容器真空封接头是保持容器夹层真空的关键部件，一旦受到破坏，将立即导致容器夹层真空恶化，产品不能继续使用，因此用户不得擅自打开容器真空封口接头。

The vacuum sealing joint of container is the key component to keep the vacuum of container interlayer. Once damaged, the container interlayer will deteriorate immediately. The product can not be used any more, so users should not open the vacuum sealing joint of the container without approval.

PRODUCT TECHNICAL PARAMETERS TABLE

主要产品型号 技术参数

Product Number 产品型号	Volume 容积	Neck 颈 Diameter 直径	Outside Diameter 外径	Height 高	Empty Weight 空重	Liquid Nitrogen Storage Days 储存时间		Liquid Nitrogen Evaporation 液氮蒸发量/升/天	
	L	≤mm	≤mm	≤mm	≤kg	Qualifie 合格	Excellence 优质	Qualified 合格	Excellence 优质
YDS-2	2.5	30	224	370	2.8	20	25	0.12	0.1
YDS-3	3.15	50	224	420	3.4	26	31	0.12	0.1
YDS-6	6	50	305	460	4.5	52	63	0.12	0.1
YDS-10	11.2	50	305	550	6.3	85	110	0.12	0.09
YDS-10B	11.2	50	305	550	6.5	52	64	0.208	0.172
YDS-10-80	11.2	80	305	550	6.3	48	57	0.25	0.2
YDS-10-125	11.2	125	305	550	6.3	25	32	0.4	0.3
YDS-10-210	11.2	210	305	550	7	13	18	0.7	0.6
YDS-15	16	50	365	600	9	134	161	0.12	0.1
YDS-15B	16	50	365	600	9	65	80	0.208	0.172
YDS-15-125	16	125	365	600	9	42	53	0.4	0.3
YDS-20	21	50	365	610	9.5	170	210	0.12	0.1
YDS-30	32	50	446	670	14.5	254	295	0.12	0.1
YDS-30B	32	50	446	670	14.5	159	191	0.24	0.2
YDS-30-80	32	80	446	670	14.5	147	174	0.26	0.22
YDS-30-125	32	125	446	670	14.6	90	112	0.371	0.3
YDS-30-210	32	210	446	670	16	40	50	0.7	0.6
YDS-35	35.5	50	446	695	17	250	310	0.12	0.1
YDS-35-80	35.5	80	446	695	17	159	187	0.25	0.2
YDS-35-125	35.5	125	446	695	17	95	125	0.374	0.309
YDS-50B-80	50	80	500	850	22	147	189	0.4	0.3
YDS-50B-125	50	125	500	850	22	110	134	0.476	0.4
YDS-50B-210	50	210	500	850	22	50	60	1	0.833
YDS-60B-210	60	210	560	900	32	63	74	1	0.851
YDS-100B-210	100	210	560	1100	35	85	100	1	0.851



MAJOR PRODUCT MODEL COMPILATION METHOD
主要产品型号 编制方法



YDS-□□-□□

加装配置代号：配锁盖加代号S；
Add assembly code: with lock cover plus code S;

加装配置代号：F—配方形提桶，L—长提桶，标配短提桶；
Additional assembly code: F - type bucket, L - long bucket, standard short bucket;

产品口径：由03位阿拉伯数字组成，50口径不用标注；
Product caliber: composed of 0-3 numbers, 50mm neck without labeling;

产品类型：B—运输型，H—航空运输型，储存型无代号标识；
Product types: B-transport type, H-air transport type, storage type without code label

产品容积：由0-3位拉伯数字组成；
Product volume: composed of 0-3 numbers;

铝制液氮生物容器产品代号
Code No. of Aluminum Liquid Bio-cereal Products

MAIN STRUCTURE AND FEATURES

产品主要结构及其特点

YDS 系列产品 / YDS-series products

YDS系列产品主要由外壳、内胆、颈管、多层绝热体、提筒等组成，其中航空运输系列产品另含液氮吸附体。

YDS-series products are mainly made up of outer shell, inner tank, neck tube, multi-layer isolating material and canister. Otherwise, dry shipper series include liquid nitrogen absorbent.

1. 容器外壳、内胆采用铝合金板制作，具有重量轻、低温下强度高、耐腐蚀等特点。

The outer shell and inner vessel are made of the aluminum alloy plate featuring light weight, high cryogenic strength and corrosion resistance.

2. 颈管采用玻璃钢制作，具有机械强度高、导热系数小等特点。

The neck tube is made of glass-fiber reinforced plastics featuring of high mechanical strength and low heat conductivity.

3. 多层绝热体采用反射性能特别优良的铝箔为反射屏，采用导热系数小，放气速率低材料为隔热材料，以减少热辐射。

The multi-layer insulation is composed of the reflecting screen of aluminum foils with high reflectivity and insulation material with low heat conductivity and low gas-passing speed to reduce heat radiation..

4. 容器外壳与内胆间的夹层为高真空状态，以防止气体的热对流，并采用在低温状态下吸附量大的吸附剂，以保证容器的性能长期稳定可靠，产品寿命不低于5年。

The jacket between the outer shell and inner tank is of high vacuum to prevent thermal convection. Moreover, the adsorbent with high adsorbing capacity at the cryogenic temperature is used to ensure the long-term stable and reliable performance of the dewar, with more than five-year life.

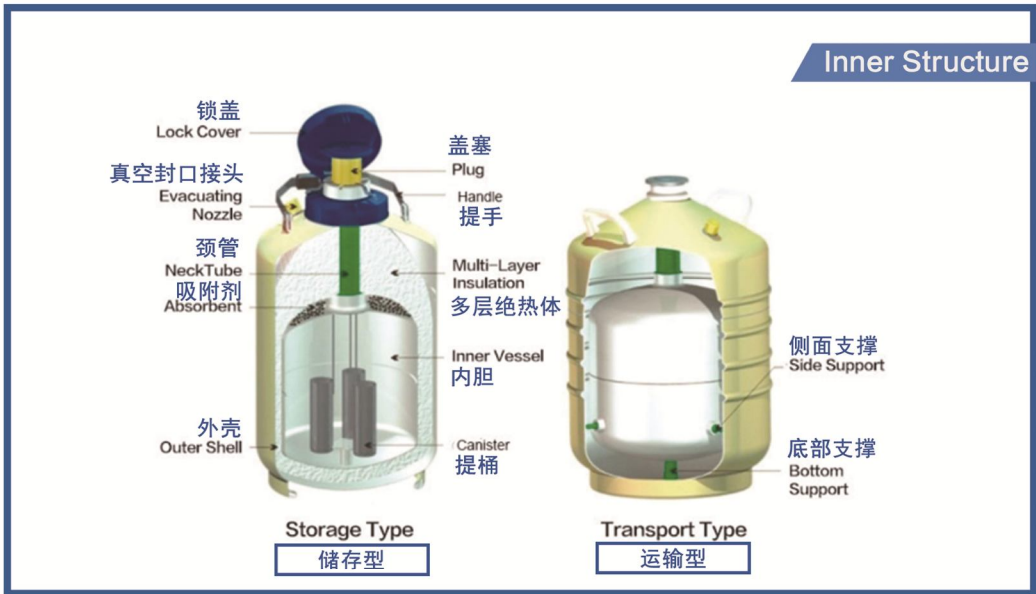
5. 航空运输型液氮生物容器中先进的液氮吸收体，可大量吸附液氮并防水、防潮。当向容器中注入液氮时，液氮吸收体便充分吸附液氮，通过液氮吸收体吸附的液氮自然挥发形成氮气，使内胆中的温度在一定时期内始终保持在 -150℃ 以下，保存的生物样品便可在冷冻和干爽状态下储存或安全地进行远距离运输，即使在运输途中容器倾倒，也不会有液氮流出。

The transport liquid nitrogen containers use advanced liquid nitrogen adsorber to adsorb liquid nitrogen greatly, which it can be waterproof and moistureproof. While filling liquid nitrogen, liquid nitrogen adsorber can adsorb liquid nitrogen in bulk and can this liquid nitrogen can evaporate and become nitrogen, thus the temperature of inner tank can be kept under -150℃ for a certain period. The biological specimen can be stored and transported for long-distance in dry and clean condition. Even if the container is turned over, liquid nitrogen never spills out.



SCHEMATIC DIAGRAM OF PRODUCT STRUCTURE

产品结构示意图



描述 / DESCRIPTION

1. 液氮罐包括内胆，外壳，以及连接上述两个容器的颈管。耐用的内胆和外壳由高强度铝合金制成。

The liquid nitrogen container consists of an inner tank, an outer shell, and a neck tube connecting the two parts. The durable inner tank and outer shell are made up of high strength aluminum alloy.

2. 液氮罐内外胆之间处于高度真空，且有多层保温材料。因此它具有优越的深度冷冻性能。

The storage tank is in high vacuum space between the inner and outer shells, and with multi-layer the rmalinsulation material. Therefore it has excellent performance of deep freezing.

3. 颈管由强化玻璃塑料制成，具有最低的导热系数，因此可以将进入容器的外部热量控制到最小限度。

The neck tube is made of reinforced glass plastic which has the lowest heat conduction coefficient, so it can control the incoming heat from the neck tube to the minimum limit.

LIQUID NITROGEN TANK ACCESSORIES
液氮罐配件

