



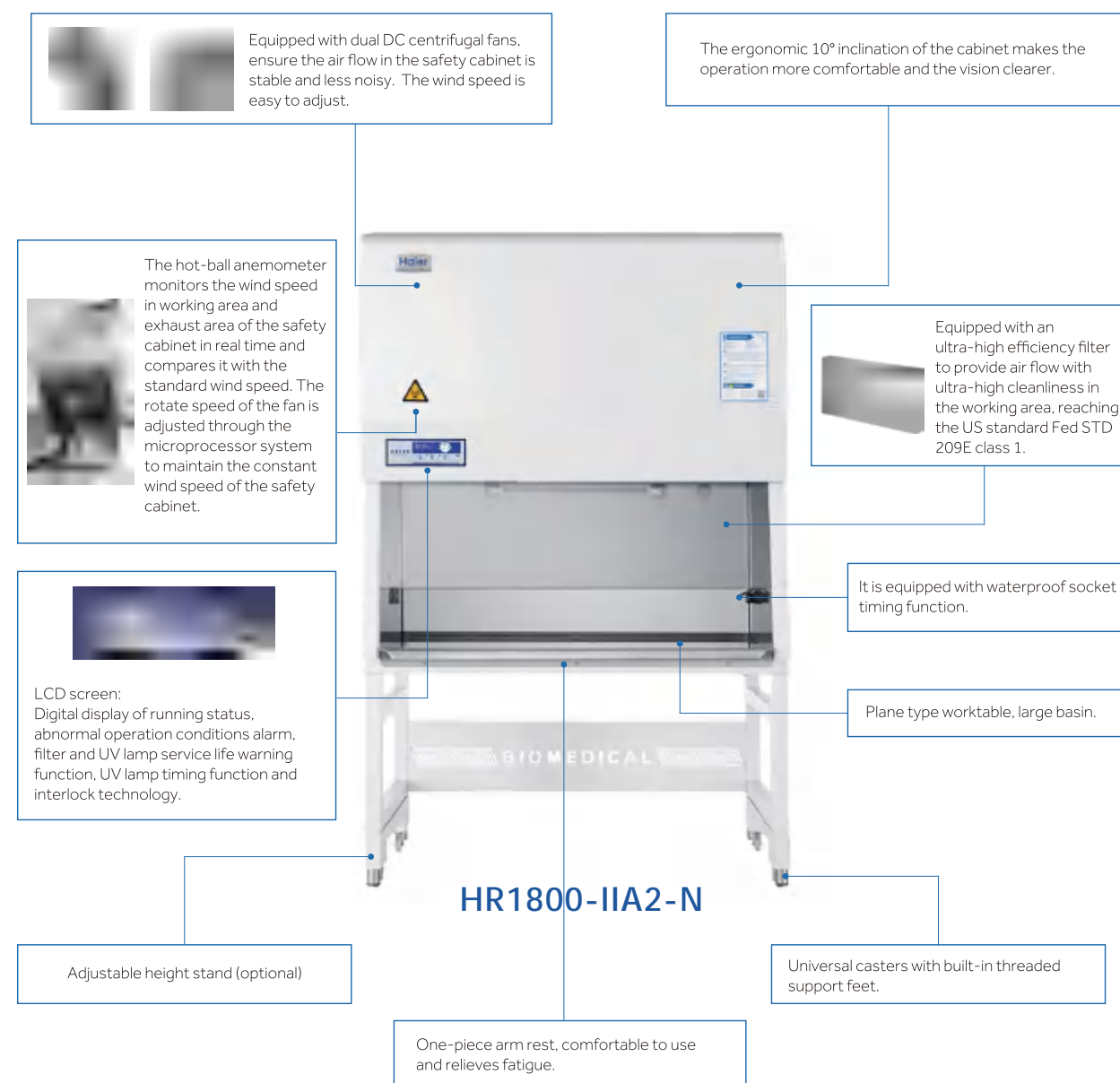
**Laboratory
Equipment**

NSF Series Biological Safety Cabinet

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Scope of Application

Professional air purification equipment suitable for pharmaceuticals, medical and health industries, scientific research laboratories of universities and colleges as well as other related fields.



Product Advantages

Microprocessor Control System

- Intuitive and informative interactive digital LCD display.
- The hot-ball anemometer monitors the downflow and inflow wind speed of the safety cabinet in real time and compares it with the standard wind speed.
- The rotate speed of the fan is adjusted through the microprocessor system to maintain the constant wind speed of the safety cabinet.
- Real-time display of operational information and parameters including downflow air velocity, flow rate, temperature, humidity, positive pressure, negative pressure, fan cumulative running time and filter remaining service life.
- One button UV lamp timer function, allows users to set 0 to 24 hours of automatic on/off time.

Ultra-Low Noise, Uniform Airflow

- Dual DC fan design, combined with professional air distribution design, lower noise, with a more uniform air flow.

Ergonomic Design



Platform Arm Rest

- Platform arm rest frame, comfortable to use, relieves fatigue.



Wear-resistant and Easy to Clean

- The inner liner is manufactured with stainless steel integrated structure design, 12mm large arc transition, no dead angles to clean.
- The work surface is manufactured with high quality 304 stainless steel, without any fixed screws, preventing any accumulation pollutants.
- The cabinet is manufactured with cold rolled steel plate with corrosion resistant epoxy resin powder sprayed on the surface, which is resistant to acid and alkali corrosion.



Waterproof Socket

- Waterproof socket with timing technology allows users to program timed on/off function.

Superior Filter, Multiple Protection

- ULPA is made of moisture-proof and flame-retardant glass fiber filter paper which can intercept 99.9995% solid particles with a diameter of 0.12 μm to ensure high cleanliness of air supply flow and exhaust flow.
- Perfect air distribution design, no turbulence in the working area.
- Sound and light alarm function for abnormal parameters.

Multiple Voltage Options, Suitable for Many Countries and Regions

- Full voltage coverage (100-230V 50/60Hz), suitable for a wide range of countries and regions.

One-piece Welded Cabinet Structure, Leak Proof

- Prevention of leakage performance of dangerous factors conforms to NSF specification.



Caster and Foot

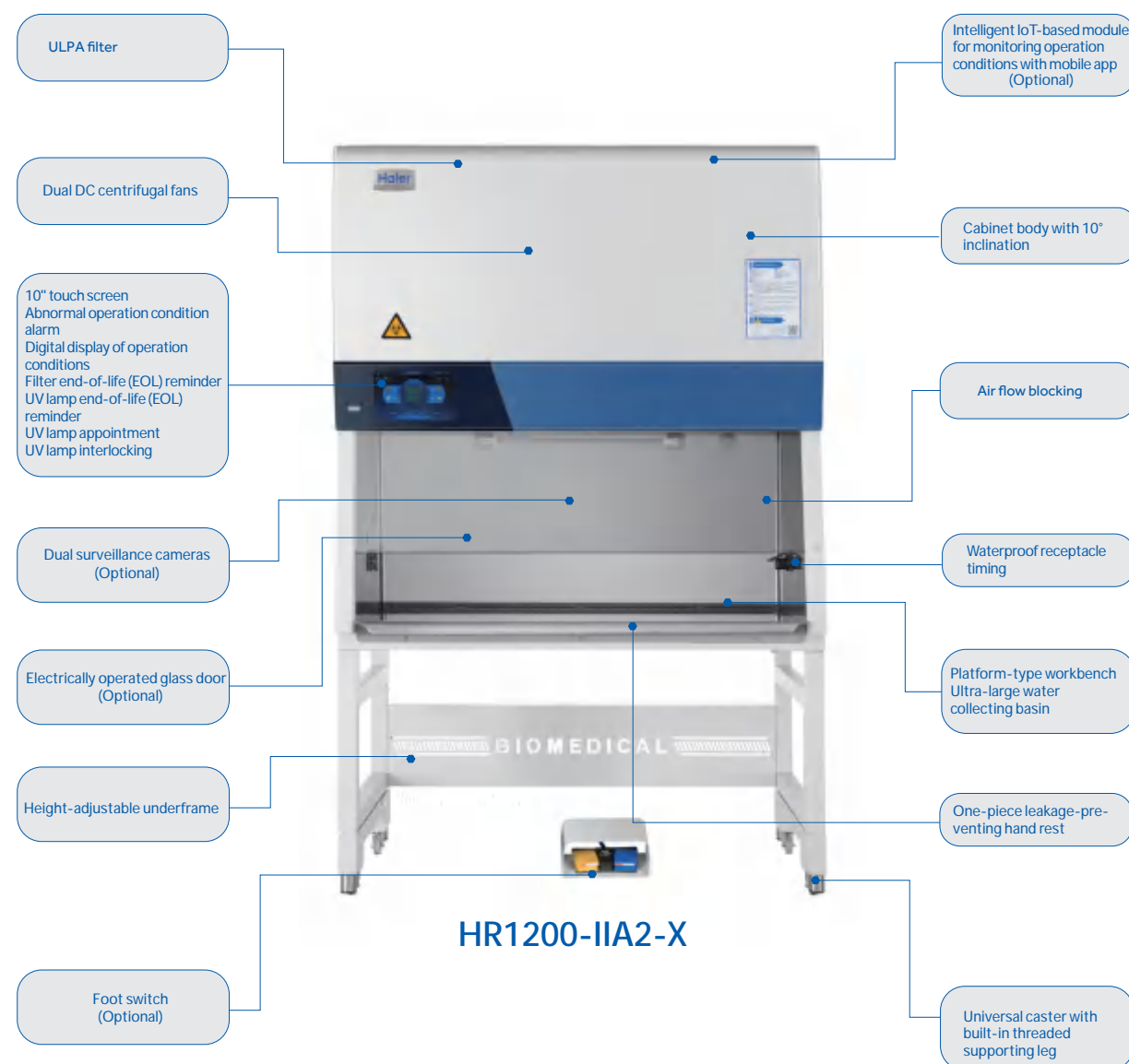
- 4 universal casters + 4 feet design, easy to move and lock leveling

Biological Safety Cabinet (Touchscreen)

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Main Uses

The X series of standard Class II microbiological safety cabinets are suitable for basic cell biology, microbiology, biomedicine, biosafety laboratories and other laboratories. It is the most basic protection and isolation equipment for biosafety.



Product function advantages

- The dual DC fans meet the low-noise, energy-saving and high-reliability requirements
- Utilizing intelligent constant air speed design to monitor the downward airflow and the inlet airflow in real-time. The dual air speed sensors adjust the fan speed through a microcomputer system so as to maintain constant air speed inside the cabinet
- Adopting ultralow penetration air filters (ULPA) ensuring a cleanliness grade conforming to Class 1 of the American standard FED STD 209E (Class 3 of ISO14644-1) and using pressure sensors to monitor the service life of the filters in real-time to ensure superior accuracy and efficiency
- Optional - X series - electric lifting glass doors with matching foot switches
- Optional - X series - comes equipped with surveillance cameras to record the operating status of the left and right working areas respectively and independently
- Optional - Intelligent IoT module to enable the mobile App to monitor the running state of the safety cabinet and display the performance parameters such as air speed and filter life in real-time
- Adopting an intelligent interlock design to avoid the risk of misoperation; with an operational front window interlocking with the UV lamp, LED lamp and fan intelligently to ensure better security
- One-button UV lamp timer, enabling the memory setting of the user's UV lamp usage habits for convenient one-key start-up of the UV lamp timing function

Product construction advantages

- Using platform-type hand rest racks which are comfortable to use and can relieve fatigue; with leak-proof construction to prevent the splashed liquid waste from entering into the seams of the racks
- The cabinet body has a 10-degree inclination design, which is in accordance with ergonomic principles and more comfortable to operate
- The cabinet has a pull-down front window, which makes it easy to clean the upper glass after pulling down the glass front window and removing the hand rest racks
- Equipped with an integrated workbench and a stainless steel liquid collecting tank larger than the workbench so as to prevent liquid leakage
- Constructed with a universal caster design to facilitate ease of movement by users and comes with built-in threaded feet to prevent bacterial growth
- With real-time display of the filter life and the running time of the fan and the UV lamp, the system alerts the user by alarm when the service life of the filter and the UV lamp becomes less than 10%, which is convenient and safe

Biological Safety Cabinet (Touchscreen)

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Specifications

Model		HR1200-IIA2-N	HR1800-IIA2-N	HR1200-IIA2-X	HR1500-IIA2-X	HR1800-IIA2-X
Working Voltage&Frequency (V/Hz)		100-230/50/60	100-230/50/60	220/50/60	220/50/60	220/50/60
Power (VA)		1300	1400	1600	1670	1850
Power of Blower (W)		DC 120, DC 112	DC 120, DC 112	DC 120 112	DC 190 112	DC 120 112
Airflow Circulation		70% Downflow,30% Exhaust	70% Downflow,30% Exhaust	70% Downflow,30% Exhaust	70% Downflow,30% Exhaust	70% Downflow,30% Exhaust
Main Filter Typical Efficiency		ULPA ,U15,99.9995%@0.12um	ULPA ,U15,99.9995%@0.12um	ULPA ,U15,99.9995%@0.12um	ULPA ,U15,99.9995%@0.12um	ULPA ,U15,99.9995%@0.12um
Exhaust Filter Typical Efficiency		ULPA ,U15,99.9995%@0.12um	ULPA ,U15,99.9995%@0.12um	ULPA ,U15,99.9995%@0.12um	ULPA ,U15,99.9995%@0.12um	ULPA ,U15,99.9995%@0.12um
Filter's Brand		AAF	AAF	AAF	AAF	AAF
Downflow Velocity (m/s)		0.35	0.35	0.30	0.30	0.30
Inflow Velocity (m/s)		0.53	0.53	0.45	0.45	0.45
Lighting Intensity (Lux)		/	1292	1317	1396	1133
Net/Gross Weight (approx)	kg	275/335	375/460	280/340	320/400	380/465
	lbs	617/750	827/1014	617/750	705/882	838/1025
Interior Dimensions (W*D*H)	mm	1230*600*650	1830*600*650	1230*600*655	1530*600*655	1830*600*655
	in	48.4*23.6*25.6	72.0*23.6*25.6	48.4*23.6*25.8	60.2*23.6*25.8	72.0*23.6*25.8
Exterior Dimensions (W*D*H)	mm	1340*790*2160	1940*790*2160	1336*790*2120	1636*790*2120	1936*790*2120
	in	52.8*31.1*85	76.4*31.1*85	52.6*31.1*83.5	64.4*31.1*83.5	76.2*31.1*83.5
Packing Dimensions (W*D*H)	mm	1400*900*1710	2000*900*1710	1400*925*1665	1700*925*1665	2000*925*1665
	in	55.1*35.4*67.3	78.7*35.4*67.3	55.1*36.4*65.6	66.9*36.4*65.6	78.7*36.4*65.6
Supporter		680-900mm adjustable height	680-900mm adjustable height	680-900mm adjustable height	680-900mm adjustable height	680-900mm adjustable height
Container Load (20'/40'/40'H)		8/16/16	6/12/12	8/16/16	6/12/12	6/12/12
Alarm		Sound and Flash	Sound and Flash	Sound and Flash	Sound and Flash	Sound and Flash
Certification		UL,NSF	UL,NSF	CE, TÜV SÜD Mark, NMPA(CFDA)	CE, TÜV SÜD Mark, NMPA(CFDA)	CE, TÜV SÜD Mark, NMPA(CFDA)

Product appearance and specifications are subject to change without notice
Stainless Steel Arm Rest is removable, width of 60 mm

Biological Safety Cabinet (Standard Single HEPA)

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Main Uses

These are standard Class II microbiological safety cabinets suitable for basic cell biology, microbiology, biomedicine, biosafety laboratories and other laboratories. It is the most basic protection and isolation equipment for biosafety.



Product Advantages

- HR1200-IIA2-S is the latest biosafety cabinet developed and manufactured to European Standard EN12469.
- With improved energy efficiency the HR1200-IIA2-S is equipped with two DC fans which also lower noise output.
- A highly efficient HEPA output filter provides protection for the samples, operators and environment.
- Side glass windows allow more natural light, reducing optical stress caused by artificial lighting.
- Additional features include height adjustable stand with wheels and levelling feet, air valve and vacuum valve ports.

Features

- Certified to EN12469.
- Damp-proof, fire-proof glass fibre HEPA filter with a filtering efficiency for $\geq 0.3\mu\text{m}$ particulate matter is $\geq 99.995\%$ provides cleaner air and safer samples.
- Dual DC fans allow for better air flow uniformity and operate with lower noise.
- LCD screen displays various parameters and clear operational conditions.
- UV lamp can be set with one single key to activate/deactivate automatically at specified sterilization intervals from 0min to 24hrs, to minimize the waiting time.
- The product features an interlocking function between the ultraviolet sterilization, fluorescent lamp, front window and fan motor meaning the UV lamp can only come on when the illuminating lamp is off. This failsafe removes the risk of incorrect operation.
- Multiple audible and visual alarms: hardware malfunction alarm, operating parameter overrun alarm, filter/UV lamp lifecycle ending alarm, etc.
- Two IP44 rated water-proof sockets with timed on/off function for improved safety and energy conservation.
- Optional electric door or electric underframe.

Ergonomic Design

- 10° angled front window provides a comfortable work space for operators.
- Adjustable height stand with hidden mechanism to avoid contamination.
- Universal castor for convenient moving.
- Drop-down front window design for easier cleaning of the upper edge of glass.
- Removable hand rest reduces arm fatigue and does not interfere with air inflow.
- Optional accessories include water valve (manual/ electric), air valve, VHP sterilizer and electric door function (door electric motor and foot switch).

Biological Safety Cabinet (Standard Dual HEPA)

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Main Uses

Energy efficient Class II microbiological safety cabinet with two DC fans, dual exhaust HEPA's and long lasting LED lights. Suitable for microbiology, biomedicine, biosafety laboratories and other laboratories. It offers three levels of protection – operator, product and environment.



Product Advantages

The HR1200-IIA2 double exhaust filtered biological safety cabinet utilises two highly efficient HEPA exhaust filters and one ULPA downflow filter to provide three levels of protection; operator, product and environment. As there is no need for external ducting, this is a cost-effective solution.

The unit is certified to the EN 12469 standard. It uses energy efficient DC fans, as well as LED lights to ensure for optimal performance with a low noise output and reduce energy consumption. The ergonomic design ensures maximum comfort and alleviates operator fatigue.

The units utilise side air design on the upper edge and on both sides of the front window to eliminate 'blind spots'. This prevents crossflow between inside and outside air thus reducing the risk of contamination. The compartmented working surface can easily be removed for sterilization and cleaning.

Features

- E.U. EN12469 Standard Certification.
- The main filter uses a damp-proof, fire-proof glass fibre ULPA filter, the filtering efficiency for $\geq 0.12\mu\text{m}$ particulate matter is $\geq 99.9995\%$ which provides cleaner air and safer samples.
- EC fan operates with lower noise and better uniformity air flow.
- LCD screen displays various parameters and clear operational conditions.
- Ultraviolet light can be set with one single key to automate on/off time, and sterilization time interval from 0 to 24 hours, reducing downtime.
- The product features an interlocking function between the ultraviolet sterilization, fluorescent lamp, front window and fan motor meaning the UV lamp can only come on when illuminating lamp is off. This failsafe removes the risk of incorrect operation.
- Equipped with multiple visual and sound alert functions, it is clear and easy to understand. Alarms include filter and UV end-of-life alerts, fan turned-off after door opening alert and door open alarm.
- Two IP44 rated waterproof sockets with timed on/off function to improve safety and conserve energy.

Ergonomic Design

- 10° angled front window provides a comfortable work space for operators.
- Adjustable height stands with hidden mechanism to avoid contamination.
- Universal castors with self-levelling feet for convenient moving.
- Drop-down front window design for easier cleaning of the upper edge of glass.
- Removable hand rest reduces arm fatigue and does not interfere with air inflow.
- Optional accessories include water valve (manual/electric), air valve and VHP sterilizer.
- Optional electric door or electric underframe.

Alarm Functions

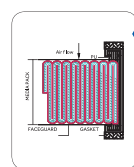
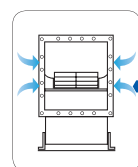
- Fan turn-off alarm after door opening.
- Abnormal door height alarm.
- Door open more than limit.
- Blocked filter alarm.
- Damaged filter alert.
- Filter and UV end-of-life alert.
- Front glass blocks ultraviolet.

Biological Safety Cabinet

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The Haier Biomedical Biological Safety Cabinet is designed to protect the operator, laboratory environment and samples from being exposed to the infective aerosol produced from samples with bacteria strains, diagnostic materials, and other infective substances. It provides the operator with comfortable and safer working conditions. It is widely used in medical health, disease prevention, food safety, biological pharmacy and environment monitoring.

Ultra Low Penetration Air Filter System



Intelligent Constant Air Velocity Patent Technology



The professional hot-bulb air velocity transducer performs real-time monitoring on the air velocity of the working area, compares it with the standard air velocity to keep the air speed constant within the safety cabinet by adjustment of the fan speed via the microcomputer system.

304 Stainless Steel Operation Platform and Internal Wall

- Stainless steel work surface without screws ensures no accumulation of contaminant
- Dismountable air in-flow plate is easy to clean and disinfect
- Concaved work surface, waste liquid easily collected



Digital Microprocessor Control System



- LCD display
- Real-time display of key parameters: downflow velocity, inflow velocity, airflow volume, static pressure, negative pressure, accumulative running time of fan and UV lamp and remaining life of filter
- Sound & light alarming function
- UV sterilization reservation setting function



Safe Air Flow Distribution Design

The professional air flow distribution design, provides more uniform airflow, reducing contamination and noise to <math><62\text{dB(A)}</math>.



V-shaped Air Inlet Design



Swivel Castor and Self-levelling Feet



HR1200-IIA2

Features

Patent Intelligent Constant Air Velocity

The professional hot-bulb air velocity transducer performs real-time monitoring on the air velocity of the working area, compares it with the standard air velocity and maintains a constant velocity by adjustment of the fan speed by microcomputer system.

Low Noise Safety Energy-saving Mode

When the human body sensor module detects under the intelligent mode that the person is outside and away from the operating area for over 15 minutes, the microcomputer program will automatically switch the safety cabinet to Low Noise Safety Energy Conservation mode, which reduces noise, conserves energy and improves the service life of the filter.

Professional Air-flow Distribution Module

Through the professional air flow distribution design, the safety cabinet provides a more uniform airflow, reducing contamination and noise to <math><62\text{dB(A)}</math>.

Ultra Low Penetration Air Filter System

American AAF (ULPA) filter is tested to a typical efficiency of > 99.9995% for 0.12 micron particles. ULPA filter provides vertical laminar flow to the worktable to protect samples from pollution.

Air Flow Disruption Technology

The units utilise side air design on the upper edge and on both sides of the front window to eliminate 'blind spots'. This prevents crossflow between inside and outside air, reducing contamination (Patent No. ZL200520125549.X).

Unique Drop-down Front Glass Window

The unique drop-down front glass window can be removed in seconds to enable quick and efficient cleaning of upper sections, shortening downtime.

Removable Arm Rest

Removable arm rest reduces user fatigue and does not interfere with air inflow.

	Biosafety Cabinets	Air Quality	Filtration	Electrical Safety
Standards Compliance	EN 12469, Europe NMPA (CFDA) YY-0569, China	ISO 14644.1, Class 3, Worldwide US Fed Std 209E, Class 1 USA	EN-1822 (H14), Europe IEST-RP-CC001.3, USA IEST-RP-CC007, USA IEST-RP-CC034.1, USA	EN61010

Biological Safety Cabinet (Classic Series)

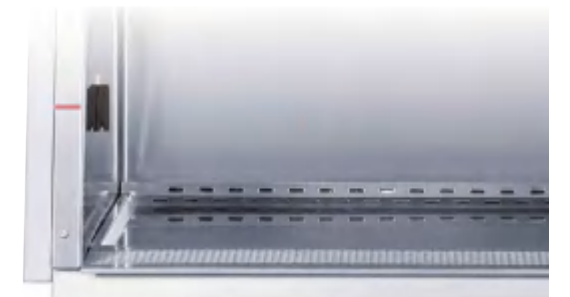
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HR40-IIA2

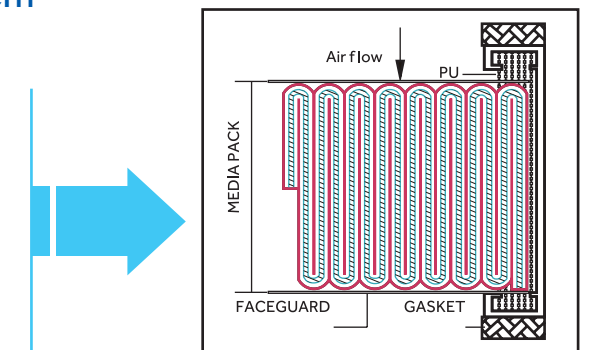
304 Stainless Steel Operation Platform and Internal Wall

- Stainless steel work surface without screws ensures no accumulation of contaminant
- Removable air in-flow plate is easy to clean and disinfect
- Internal wall is constructed of a single piece stainless steel, with 12mm arc angle corners which allows for more effective cleaning
- The volume of liquid tank is over 4L, equipped with outlet valve for convenient cleaning and maintenance
- Concaved work surface, waste liquid easily collected
- Adjustable stand (0-75mm) without exposed screw thread, reduces risk of contamination



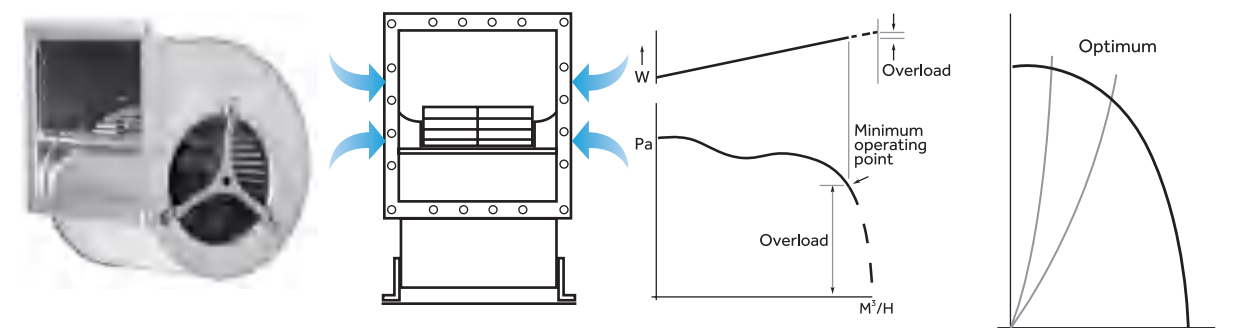
Ultra Low Penetration Air Filtration System

- American AAF ULPA filter
- Tested to a typical efficiency of 99.9995% for 0.12 micron particles
- Provides FED STD 209E class 1 (or ISO14644.1 class 3) clean air to work surface in a stable vertical laminar flow to protect samples
- The exhaust ULPA filter traps biohazard particles acquired from the work surface before air is exhausted to the room, offering personnel and environmental protection



High Efficiency Blower System

- The blower system is designed for high performance operation, maximum energy efficiency and minimal maintenance
- Self cooling system reduces energy consumption while enhancing reliability



Reverse centrifugal fan	Double-side air inflow design decreases running noise	Air velocity auto-compensation function guarantees stable wind speed	Provide uniform airflow by adjusting working voltage of fan
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Biological Safety Cabinet

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Specifications



Model		HR900-IIA2	HR1200-IIA2	HR1200-IIA2-D	HR1200-IIA2-S	HR1500-IIA2
Working Voltage&Frequency (V/Hz)		220/50	220/50	220/50/60	220/50/60	220/50
Power (VA)		1400	1500	1600	1600	1900
Power of Blower (W)		AC L=330,M=465,H=735	AC L=330,M=465,H=735	DC 190,DC 170	DC 120,DC 112	AC 650
Airflow Circulation		70% Downflow,30% Exhaust	70% Downflow,30% Exhaust	70% Downflow,30% Exhaust	70% Downflow,30% Exhaust	70% Downflow,30% Exhaust
Main Filter Typical Efficiency		ULPA ,U15,99.9995%@0.12um	ULPA ,U15,99.9995%@0.12um	ULPA ,U15,99.9995%@0.12um	HEPA ,H14,99.995%@0.3um	ULPA ,U15,99.9995%@0.12um
Exhaust Filter Typical Efficiency		ULPA,U15,99.9995%@0.12um	HEPA ,H14,99.995%@0.3um	TWO HEPA ,H14,99.995%@0.3um	HEPA ,H14,99.995%@0.3um	HEPA ,H14,99.995%@0.3um
Filter's Brand		AAF	AAF	AAF	AAF	AAF
Downflow Velocity (m/s)		0.33	0.34	0.30	0.30	0.31
Inflow Velocity (m/s)		0.55	0.55	0.45	0.45	0.55
Lighting Intensity (Lux)		≥900	≥900	≥1000	≥1000	≥900
Net/Gross Weight (approx)	kg	290/310	320/339	320/339	320/339	350/393
	lbs	639.3/683.4	705.5/747.4	705.5/747.4	705.5/747.4	771.6/866.4
Interior Dimensions (W*D*H)	mm	920*620*650	1220*620*650	1310*620*630	1310*620*630	1520*620*650
	in	36.2*24.4*25.6	48.0*24.4*25.6	51.6*24.4*24.8	51.6*24.4*24.8	59.9*24.4*25.6
Exterior Dimensions (W*D*H)	mm	1080*790*2160	1380*790*2160	1380*780*2160	1380*780*2160	1680*790*2160
	in	42.5*31.1*85.0	54.3*31.1*85.0	54.3*30.7*85.0	54.3*30.7*85.0	66.1*31.1*85.0
Packing Dimensions (W*D*H)	mm	1145*920*1690	1470*920*1690	1470*920*1690	1470*920*1690	1755*920*1690
	in	45.1*36.2*66.5	57.9*36.2*66.5	57.9*36.2*66.5	57.9*36.2*66.5	69.1*36.2*66.5
Supporter		680-900mm adjustable height	680-900mm adjustable height	680-900mm adjustable height	680-900mm adjustable height	680-900mm adjustable height
Container Load (20'/40'/40'H)		12/24/24	8/16/16	8/16/16	8/16/16	6/12/12
Alarm		Sound and Flash	Sound and Flash	Sound and Flash	Sound and Flash	Sound and Flash
Certification		CE, TÜV SÜD Mark, NMPA(CFDA)	CE, TÜV SÜD Mark, NMPA(CFDA)	CE, TÜV SÜD Mark	CE, TÜV SÜD Mark	CE, TÜV SÜD Mark, NMPA(CFDA)

Product appearance and specifications are subject to change without notice
Stainless Steel Arm Rest is removable, width of 60 mm

Biological Safety Cabinet

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Specifications



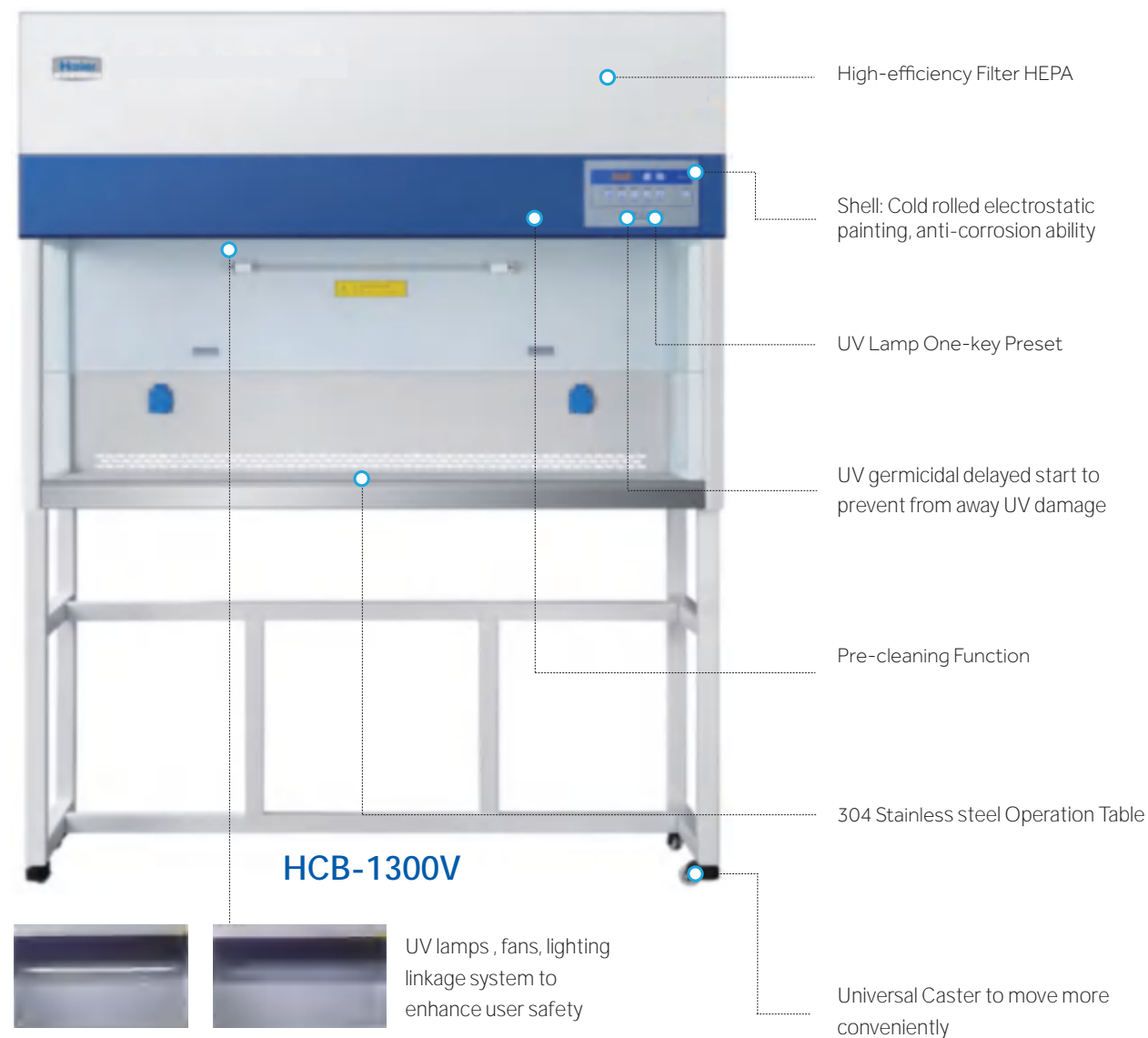
Model	HR30-IIA2	HR40-IIA2	HR40-IIA2	HR40-IIB2
Working Voltage&Frequency (V/Hz)	220/50/60	115/60	220/50/60	220/50/60
Power (VA)	1300	1300	1300	1700
Power of Blower (W)	AC 540/625	AC 540/625	AC 540/625	AC 115
Airflow Circulation	70% Downflow, 30% Exhaust	70% Downflow, 30% Exhaust	70% Downflow, 30% Exhaust	100% Exhaust
Main Filter Typical Efficiency	ULPA, U15.99.9995%@0.12um	ULPA, U15.99.9995%@0.12um	ULPA, U15.99.9995%@0.12um	ULPA, U15.99.9995%@0.12um
Exhaust Filter Typical Efficiency	HEPA, H14.99.995%@0.3um	HEPA, H14.99.995%@0.3um	HEPA, H14.99.995%@0.3um	HEPA, H14.99.995%@0.3um
Filter's Brand	AirePlus	AAF	AAF	AAF
Downflow Velocity (m/s)	0.3	0.28	0.3	0.3
Inflow Velocity (m/s)	0.53	0.55	0.53	0.53
Lighting Intensity (Lux)	≥1100	≥1200	≥1200	≥1200
Net/Gross Weight (approx)	kg	220/248	258/305	252/308
	lbs	485.0/546.7	568.8/672.4	555.6/679.0
Interior Dimensions (W*D*H)	mm	900*610*680	1167*610*680	1167*610*680
	in	35.4*24.0*26.8	45.9*24.0*26.8	45.9*24.0*26.8
Exterior Dimensions (W*D*H)	mm	1100*790*2200	1360*790*2200	1360*790*2330
	in	43.3*31.1*86.6	53.5*31.1*86.6	53.5*31.1*91.7
Packing Dimensions (W*D*H)	mm	1155*905*1720	1415*905*1720	1415*905*1910
	in	45.5*35.6*67.7	55.7*35.6*67.7	55.7*35.6*75.2
Supporter (mm)	680	680	680	680
Container Load (20'/40'/40'H)	10/20/20	8/16/16	8/16/16	8/16/16
Alarm	Sound and Flash	Sound and Flash	Sound and Flash	Sound and Flash
Certification	CE, TÜV SÜD Mark, NMPA(CFDA)	/	CE, TÜV SÜD Mark, NMPA(CFDA)	CE, TÜV SÜD Mark, NMPA(CFDA)

Product appearance and specifications are subject to change without notice

Laminar Flow Cabinet

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- Featuring many technologies and authoritative testing certification for reliability
- Microcomputer intelligent control panel with durable touch buttons
- Multiple safety protection functions including UV delay start
- Interlocking function to put an end to incorrect operation
- Ergonomic design to ensure comfortable operation
- Memory function to avoid repeated start-up setting
- Integrated stand with universal casters



High-Efficiency Filter HEPA

High-efficiency HEPA filter with efficiency of 99.99%@0.3 μ m, provides ISO14644.1 Class V standard clean air, safer and reliable clean air.

304 Stainless Work Surface

The durable and corrosion-resistant 304 stainless steel work table without fixing screws reduces the accumulation of dirt, reducing the risk of contamination.

Ergonomic Design

- Recessed internal lighting reduces eye fatigue.
- UV sterilization start-up delay technology prevents injury by UV light. After the UV lamp switch is pressed down, the audible and visual alarm will be activated to remind the operator to leave in time;
- Pre-set function: This technology includes a pre-set UV sterilization start-up delay function to provide improved working efficiency.

Interlocking Function

There is an interlocking function between illuminating lamp and UV lamp, the UV lamp only works when the illuminating lamp is off. If the UV lamp is on, it can be turned off by pressing the daylight lamp, reducing the risk of incorrect operation.

Memory Function

The UV lamp start-up delay time, sterilization duration, pre-set start time, fan position can be set and saved by user on request for the convenient and quick cabinet start-up.

One-key Operation

- After the UV lamp switch is pressed, the time function can be activated automatically. The default sterilization time is 30min, which can be adjusted by user within 0-99min on request;
- Sterilization pre-set, when pressing the UV lamp, the pre-set lamp will light to remind user that the sterilization pre-set function has been activated and that the sterilization pre-set can be conducted.

Pre-cleaning Function

The pre-cleaning function can further improve the protection of samples.

Laminar Flow Cabinet

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Specifications

Model		HCB-900V	HCB-1300V	HCB-1300V	HCB-1600H
Flow Type		Vertical	Vertical	Vertical	Horizontal
Voltage/Frequency (V/Hz)		220/50	115/60	220/50	220/50/60
Power (W)		1200	1200	1200	350
Vibration Amplitude (UM)		2	2	2	2
Exhaust Filter Typical Efficiency		H13 HEPA,99.99%@0.3um	H13 HEPA,99.99%@0.3um	H13 HEPA,99.99%@0.3um	H13 HEPA,99.99%@0.3um
Average Velocity (M/S)		0.2-0.4	0.2-0.4	0.2-0.4	0.2-0.4
Lighting Intensity (Lux)		≥300	≥300	≥300	≥1000
Sound Level (dB(A))		58	58	58	61
Net/Gross Weight (approx)	kg	115/145	145/171	145/171	165/214
	lbs	254/319	320/376	320/376	363.7/471
Internal Dimension (W*D*H)	mm	900*530*520	1300*530*520	1300*530*520	1710*550*750
	in	35.4*20.9*20.5	51.2*20.9*20.5	51.2*20.9*20.5	67.3*21.7*29.6
External Dimesion (W*D*H)	mm	970*630*1730	1370*630*1730	1370*630*1730	1780*790*1960
	in	38.2*24.8*68.1	53.9*24.8*68.1	53.9*24.8*68.1	70.1*31.1*77.2
Packing Dimensions (W*D*H)	mm	1105*745*1280	1505*745*1280	1505*745*1280	1865*940*1370
	in	43.5*29.3*50.4	59.3*29.3*50.4	59.3*29.3*50.4	73.4*37.0*53.9
Supporter		755mm high chassis	755mm high chassis	755mm high chassis	765mm high chassis
Cleanliness Classification		ISO 14644.1 Class 5	ISO 14644.1 Class 5	ISO 14644.1 Class 5	ISO 14644.1 Class 5
Container Load (20'40'40'H)		15/33/33	10/25/25	10/25/25	6/12/12
Certification		CE, NMPA(CFDA)	/	CE, NMPA(CFDA)	CE, NMPA(CFDA)

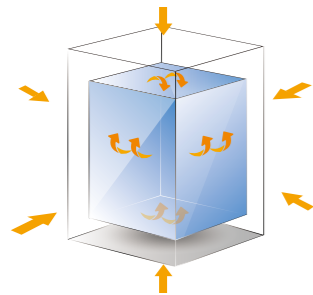
Product appearance and specifications are subject to change without notice

CO₂ Incubator

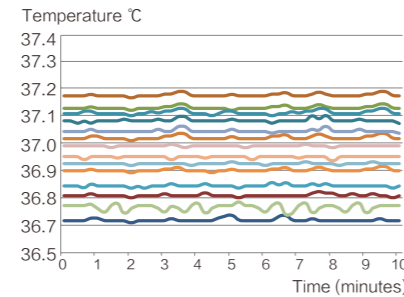


Precise and Accurate Temperature Control

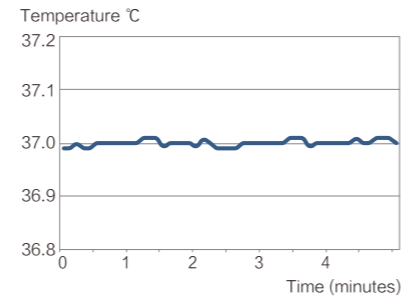
Controls the temperature precisely, within $\pm 0.1^{\circ}\text{C}$, with six-sided heating based on the fuzzy PID control principle, to provide a stable temperature to ensure the normal growth of cells throughout their life cycle.



6-sided heating sketch



Uniformity of 27 measuring points $\leq \pm 0.3^{\circ}\text{C}$



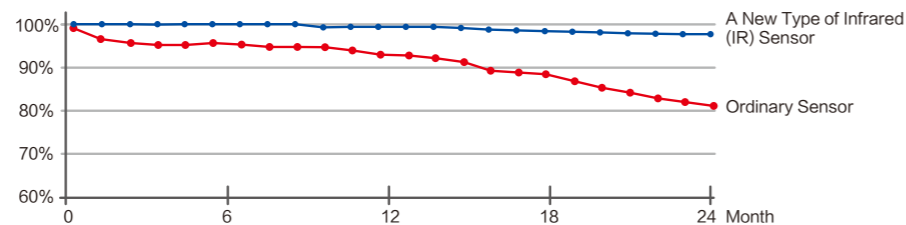
Central consistency point $\leq \pm 0.1^{\circ}\text{C}$

Precise CO₂ Concentration Using New IR Sensor Control Technology

Haier Biomedical's new IR Sensor technology uses NDIR measurement principles and withstands high temperatures of 190°C . The silicon MEMS transmitter can carry out more than 300 dry heat sterilization cycles to extend the service life to 15 years. Built-in temperature and humidity compensation technology reduces the impact of changes of humidity and temperature without the need for calibration after the high temperature sterilization. Five point calibration yields a higher measuring accuracy, sensitivity with less drift.



Silicon-based mems transmitter



Sketch of drift less than 0.3%

Fast Environment Recovery for Optimal Cell Growth

Adopting active air flow control technology, based on the fuzzy PID control principle, the parameters can be restored without overshoot. After opening the door for 30 seconds, the temperature and CO₂ concentration can be quickly restored within 4 minutes. Even if multiple users share a CO₂ incubator and frequently open and close the door, the stability and uniformity of the incubator can be ensured.

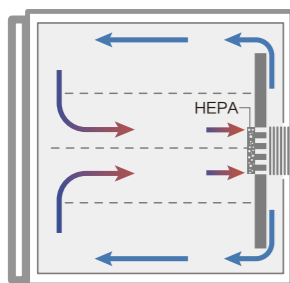
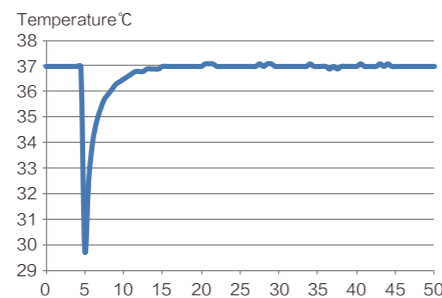
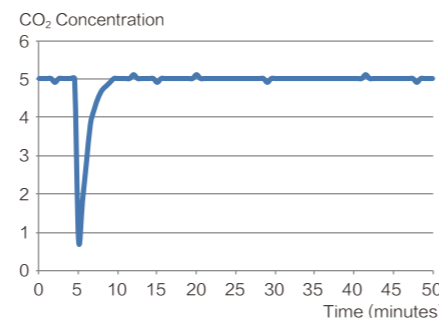


Illustration of purified airflow



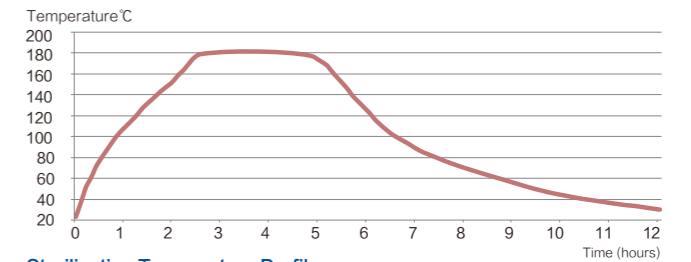
Temperature recovery curve (door open for 30s)



CO₂ concentration recovery curve (door open for 30s)

180°C Dry-Heat Sterilization Technology Minimises Contamination

Easy and effective sterilization of microorganisms including bacteria, fungi and microplasma with strong resistance, at 180°C high temperatures without the need for consumables. Simply press the "sterilization key" to activate and complete the sterilization process automatically in just 12 hours. Delivers sterility level within the chamber of all surfaces to meet WS/T367-2012 standards. All components are sterilized during the process, there is no need to disassemble internal components (including CO₂ sensors) and decontaminate separately, thus avoiding secondary pollution.



Sterilization Temperature Profile

Forty-seven points were tested in the working chamber, including glass inner doors and partitions. All regions reached 180°C and maintained for 2 hours.

Comparison of Cell Environment Disinfection vs Dry-Heat Sterilization



Ultraviolet disinfection

Cells exposed to bacterial environment



90°C hygrothermal disinfection

Cells exposed to bacterial environment



180°C dry-heat sterilization of haier CO₂ incubator

Pollution-free cell growth environment

High Efficiency Microbial Filter



The CO₂ inlet is equipped with a high-efficiency microbial filter, with 99.99% filtration efficiency for particles larger than or equal to $0.2\mu\text{m}$ in diameter. It can effectively filter bacteria and dust particles in CO₂ gas line to ensure the safety of experimental results.

Easy to Clean Interior

The working chamber is plasma electro polished, stamped stainless steel with wide-arc, laser welded corners. Bracketless shelving design ensures is quick and easy to clean.



Interactive Intelligent Display with Easy Touch Operation

Touch-sensitive screen with rapid sensing even in rubber gloves. Green indicates normal operational parameters while a red warning display indicates abnormal making it easy to view data at a glance. A red warning display and audible buzzer will alarm when water level is low.



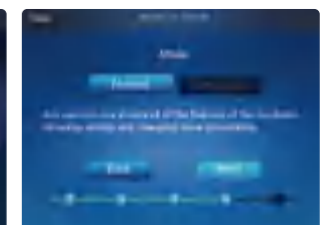
Home screen red warning



Real-time display of operation data real-time display of temperature, CO₂ concentration and O₂ concentration, and the data during the culture cycle can be viewed at any time.



Announcement function designed for multiple persons to use the same incubator make clear to all users on important things.



Operation mode clear management authority, three-level of authority to ensure the security of data.

Realtime Monitoring via Optional IoT Module

IoT module with multi-screen interaction, provides real-time upload of set parameters, operation parameters, operation curves, records and event records through the IoT cloud platform. The operation of incubator can be monitored anytime anywhere through mobile APP or computer terminal. The alarm function and service function are available with just the touch of a button.



Anti-Condensation Heating System to Reduce Pollution Risk

The door on the CO₂ incubator radiates heat to the inner glass door, effectively preventing the glass door from forming condensation. The possibility of microbial contamination caused by the condensate water is eliminated.

Intelligent Control of Circulating Air Maintains Uniformity

Automatically adjusts the circulation of the air flow, optimising the air flow to avoid air volatilization of samples and ensuring proper uniformity throughout the chamber.

Comprehensive Safety Alarm System

The system ensures the safety of experiments and processes by utilizing an independent temperature alarm system including a sound light and remote reminder. Other alarms include CO₂ concentration, door ajar and water shortage.

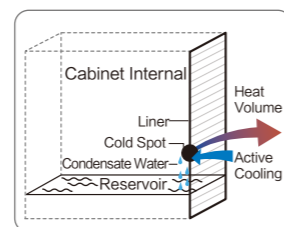
Thoughtful Design with Attention to Details



Safe anti-slip design of pull out shelves.



Convenient drainage design



Active heat pipe condensation technology with condensate water directly return to reservoir.



Data traceable for 15 years with large storage capacity and data exportable through usb.

Model		HCP-80	HCP-168	HCP-258		
Type		Air Jacket	Air Jacket	Air Jacket		
Construction	Chamber Volume (L)	80	170	258		
	Interior Chamber	304 Stainless Steel				
	Exterior Chamber	Coled-rolled steel powder coated				
	Access Port	35mm Diameter				
	Data Outputs	Remote Alarm Contacts, USB, and Optional 4-20mA				
Dimensions	Net/Gross Weight (approx)	kg	75/100	110/140	135/170	
		lbs	165/220	242.5/308.6	297/374	
	Interior Dimensions (W*D*H)	mm	400*420*490	490*560*650	570*610*745	
		in	15.7*16.5*19.3	19.3*22*25.6	22.4*24.0*29.3	
	Exterior Dimensions (W*D*H)	mm	625*684*735	714*812*887	794*867*985	
		in	24.6*26.9*28.5	28.1*32*34.9	31.3*34.1*38.8	
Packing Dimensions (W*D*H)	mm	695*755*915	760*840*1050	865*940*1135		
	in	27.3*29.7*36.0	29.9*33.1*41.3	34.0*37.0*44.7		
Shelves	Dimensions (W*D)	mm	380*300	473*434	550*484	
	Number Standard/Maximum		3/7	3/11	3/13	
	Max.load Per Shelf/Total Load	kg	10/30	10/30	10/30	
	Construction		Perforated, Adjustable			
Electrical	Rated Voltage Power Supply (V/Hz)		220/50	220/50	220/50	
	Nominal Consumption (kw) (Steri-run)		0.07 (0.9)	0.095 (1.4)	0.12 (1.6)	
Control	Controller		Microprocessor	Microprocessor	Microprocessor	
	Display		7 "LCD Screen	7 " LCD Screen	7 "LCD Screen	
CO ₂	Control		±0.1%	±0.1%	±0.1%	
	Range		0-20%	0-20%	0-20%	
	Alarm Range		±0.5%	±0.5%	±0.5%	
	Inlet Pressure		12-17Psi (0.8-1.2 Bar)			
	Gas Purity		≥99.5%			
	Sensor		IR	IR	IR	
	Recovery Time at 5vol.-%/CO ₂ for a 30 Second Door Opening* (min)		4	4	4	
	CO ₂ Inlet Filter (µm)		<0.2	<0.2	<0.2	
	Alarms	High/Low Temperature		Y	Y	Y
		Remote Alarm		Y	Y	Y
Excessive CO ₂ Concentration			Y	Y	Y	
Water Shortage			Y	Y	Y	
Sensor Error			Y	Y	Y	
Door Ajar			Y	Y	Y	
Temperature Parameter		Control (°C)		±0.1	±0.1	±0.1
	Range		Ambient temperature+3-55°C			
	Uniformity (°C)		±0.3	±0.3	±0.3	
	Ambient Range (°C)		18-32	18-32	18-32	
	Sensor		PT1000	PT1000	PT1000	
	Recovery Time at 37°C for a 30 Second Door Opening* (min)		4	4	4	
Sterilization Cycle	Cycle Temperature		180°C on all Internal Surfaces			
	Cycle Duration		Under 12 Hours	Under 12 Hours	Under 12 Hours	
Humidity	RH (Relative Humidity)		Setting 37°C ≥90%	Setting 37°C ≥90%	Setting 37°C ≥90%	
	Humidity Reservoir		Max.1.3L/Min 0.5L	Max.3L/Min 0.5L	Max.3.6L/Min 0.5L	
Optional	Hepa Filter		Y	Y	Y	
	Pressure Reducing Valve		Y	Y	Y	
	RS485		Y	Y	Y	
	4-20mA		Y	Y	Y	
	The Cylinder Switch		Y	Y	Y	
Certification		CE	CE	CE		

Product appearance and specifications are subject to change without notice

Constant Climate Standard Incubator

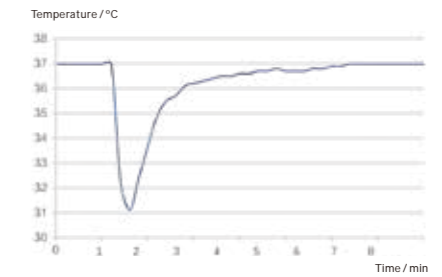
Precise and stable operation With optional real-time IoT monitoring

- Precise High Temperature Control:**
 Superior four-sided direct heating technology with an innovative air duct structure.
- Operation Mode:**
 Four operation modes for multiple temperature requirements.
 Safe and Stable: Multiple safety protection features.
- Intelligent IoT (Optional):**
 7-inch Smart LCD touchscreen; Mobile app monitors the status of the incubator and issues abnormal alarms in real time.




Rapid Recovery After Door Open

Rapid warming: the temperature inside the unit quickly recovers after opening the door to reduce the influence of temperature fluctuation on the sample.




The temperature rise curve to 37°C after opening the door for 30 sec at 22°C ambient temperature.


Convenient and Intelligent Management at a Glance




7-inch touchscreen, easy to operate and sensitive, it can respond quickly even when wearing rubber gloves.



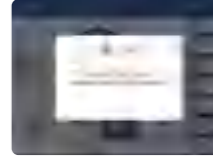
Real-time display of temperature data, one-touch to review previous data.



Records abnormal information in real time, eliminating any hidden abnormalities which ensures the culturing is more secure.

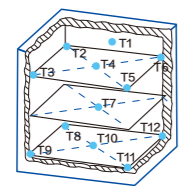


Multiple operating modes.



The program can be edited and set at any number of segments to meet the needs of various detection tests.

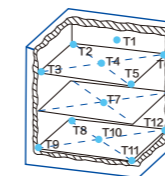
HZP-168 with Natural Convection



ASTM standard, 12 points testing

Fuzzy PID control technology and high performance four-sided heating mechanisms are used to achieve precise temperature control with superior uniformity.

HFP-80 with Forced Convection

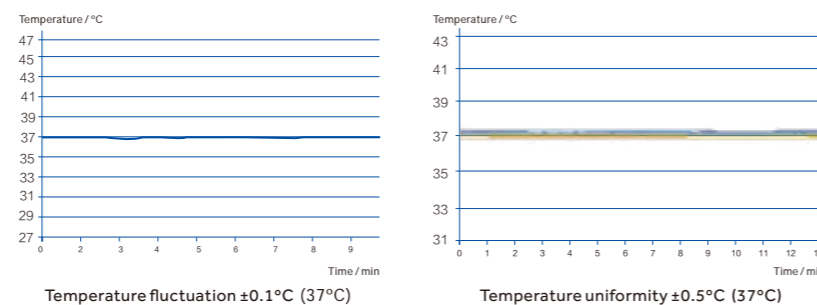


ASTM standard, 12 points testing

Fuzzy PID control technology and high performance four-sided heating mechanisms are used to achieve precise temperature control with superior uniformity.

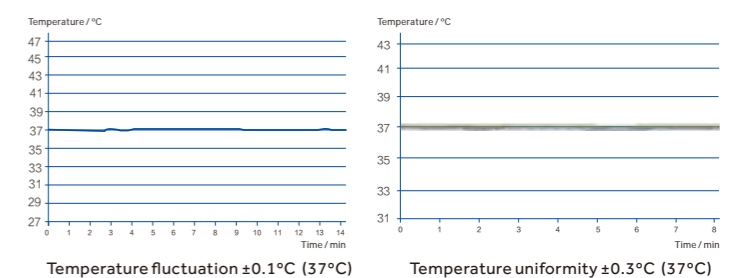
Precise Temperature Control; Energy-efficient and Environment-friendly

An energy-efficient model with superior control and heating mechanisms, high-quality insulation material and cabinet structure to ensure heating requirements are met while keeping power consumption to a minimum.



Precise Temperature Control; Energy-efficient and Environment-friendly

An energy-efficient forced air standard incubator model with professional air duct design, high-quality insulation material and cabinet structure to ensure heating requirements are met while keeping power consumption to a minimum.



Constant Climate Standard Incubator

Scope of Application

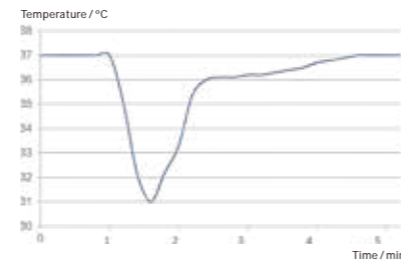
The solution is widely used in bacteria, fungi and other microorganisms culture; as well as enzyme digestion reaction, ligation reaction, embedded incubation and other related constant temperature experiments.



Embedded incubation

Bacteria

Fungus



The temperature rise curve to 37°C After opening the door for 30 sec at 22°C ambient temperature

Rapid Recovery After Door Open

Rapid warming: the temperature inside the unit quickly recovers after opening the door to reduce the influence of temperature fluctuation on the sample.

Optional IoT Technology for Real-time Remote Monitoring



Through the mobile app, the status of the incubator can be checked in real time, and information such as temperature alarm, sensor error alarm and door ajar can be controlled with one button, which provides more security for the experiment process.

Ergonomic Design



Personalized Interface, Easy to Link
Equipped with USB and RS485 interfaces, various interfaces meet the different needs of users to transfer data.



Scalable Bulk Data Storage
The touch-screen can be increased to 64GB storage capacity, with the data stored for 15 years, and the data can be exported through a USB flash drive.

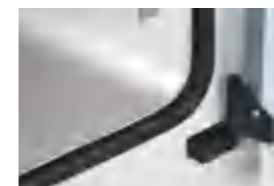


Multiple Protection Benefits for Increased Security
Overheat protection(OPT), over current protection(FU), sensor error detection, independent temperature limit, compliance with DIN 12880 requirements and EU 3.1 safety level; Sound, light and remote alarms (optional) which guarantee experiment safety. Multiple alarms, such as over temperature alarm, high and low temperature alarm, door ajar, and sensor error alarm.



High Thermal Insulation Performance, Energy Saving and Environmental Protection
The unit is manufactured with aluminum foil insulation cotton, which improves the overall insulation performance and reduces energy consumption, lowering costs while also being environmentally friendly.

Pictures in Details



Seamless, curved internal chamber for easy cleaning and decontamination.



Standard independent intelligent temperature safety controller to ensure experimental safety; RS485 achieves seamless IoT data connection.

Specifications

Model	Product Series	Capacity (L)	Exterior Dimensions (W*D*H mm)	Interior Dimensions (W*D*H mm)	Packing Dimensions (W*D*H mm)
HZP-168	Natural convection	168	650*782*1028	490*550*626	785*870*1198
HFP-80	Forced convection	80	560*662*870	400*400*480	704*722*1050

Shelves (Standard)	Temperature Control Range	Temperature Uniformity	Temperature Fluctuation (°C)	Temperature Control Precision (°C)	Recovery Time after 30 sec Door Opening (min)
2	RT+5-105°C	±0.5°C at 37°C	±0.1	±0.1	5
2	RT+5-105°C	±0.3°C at 37°C	±0.1	±0.1	2.5

**Vertical Automatic
High-pressure
Steam Sterilizer**



Vertical Automatic High-pressure Steam Sterilizer

245/246

Scope of Application

This upright automatic rapid sterilization unit uses high temperature saturated steam as the sterilization medium. Applicable to testing laboratories, laboratories, operating rooms, supply rooms, higher education, animal husbandry, disease control centers and other medical and biomedical research units, achieves rapid sterilization of instruments, dressings, rubber, liquids, glassware, bacteria and cell culture medium, wastes, etc.

Product Features



Automatic Program Control

Water injection, heating, exhaust, sterilization, pressure relief, drainage, drying, automatic control of the whole process, no manual operation, one-click completion.



Automatic Drying Function (Auxiliary Drying)

The drying time can be set after the sterilization is completed.



Multiple Exhaust Methods

A variety of exhaust methods such as regular temperature setting exhaust, dynamic exhaust and full-process air escape, completely eliminates the cold air in the sterilizer and improves steam saturation, ensuring effective sterilization.



One-click Start of Stored Procedures

Equipped with quick programs for instruments, dressings, rubber and liquids, one-button start for easy operation.



Two Pressure Relief Methods

Two pressure relief methods are available: fast pressure relief and slow pressure relief. The slow pressure relief method for liquid sterilization can prevent liquid overflow caused by rapid buildup of pressure.



Warm-up Control and Timing Start

The preheating control function supports the sterilizer heating process, which shortens the heating time of the sterilizer and improves the efficiency of the process; equipped with timing start function and can start the sterilization program according to the predetermined time and arrange the process time accordingly.



HRLM-80

Safety Mechanisms

Automatic overpressure pressure relief:

When the set pressure is exceeded, the safety valve opens automatically to release the pressure.

Automatic over-temperature protection:

When the set temperature is exceeded, the system cuts off the power supply and alarms automatically generated.

Anti-drying protection:

When the water level is too low, the power will automatically cut off, the operation is stopped, and an alarm is automatically generated.

Door safety protection:

Real-time detection of door status, sterilization procedures cannot be started if the door is not tightly closed and there is a reminder to open the door; the sterilization can only start when the door is normally closed. However, when there is pressure in the sterilizer, the sealing door cannot be opened to prevent damage caused by steam leakage.

Sensor disconnection detection:

Monitors the status of the sensor in real time to ensure that the sensor is working properly to prevent excessive temperature caused by abnormal sensors.

Full protection thermal insulated door cover:

The door cover is made of high-performance thermal insulation material which completely covers the metal door, which prevents the operator from being burned.

Standard over-current, over-voltage protection and leakage protection.

Specifications

Model	Volume (L)	Weight (Kg)	Power Supply (V/Hz)	Power (W)	Exterior Dimension (W*D*H mm)	Interior Dimension (mm)	Maximum Pressure (Mpa)	Maximum Temperature (°C)	Rated Working Pressure (Mpa)	Pressure Display Range (Mpa)
HRLM-80	80	85	220/50	3200	546*750*1065	φ 386*700	0.28	150	0.22	0-0.4

Sterilization Temperature Range	Temperature Control Precision(°C)	Dynamic Pulse Exhaust Times	Dynamic Pulse Exhaust Temperature	Solution Temperature (°C)	Holding Temperature (°C)	Sterilization Time Range	Cabinet and Door Material	Accessories	
105-136°C	0.1	0-9 (Settable)	110-136°C	40-100 (Settable)	40-100 (Settable)	0-999 mins	SUS304 Stainless Steel	2 Stainless Steel Sterilized Baskets	Optional Printer

Constant Climate Dry Chamber

247/248

Fast and stable drying High temperature dry heat sterilization

• Precise High Temperature Control:
Superior preheating technology with an innovative air duct structure.

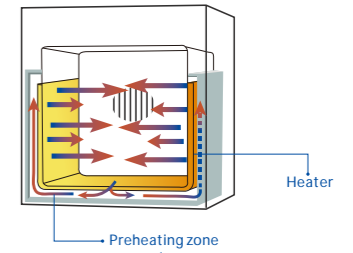
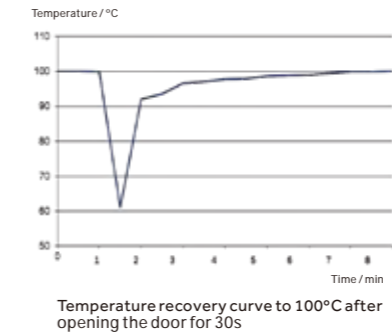
• Operation Mode:
Four operation modes for multiple temperature requirements.
Safe and Stable: Multiple safety protection features.

• Intelligent IoT (Optional):
7-inch Smart LCD touchscreen; Mobile APP monitors the status of the dry chamber and issues abnormal alarms in real time.

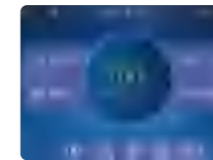


Rapid Recovery After Door Open

The temperature inside the unit quickly recovers after opening the door without overshoot.



Convenient and Intelligent Management at a Glance



7-inch touchscreen, easy to operate and sensitive, it can respond quickly even when wearing rubber gloves.



Real-time display of temperature data, one-touch to review previous data.



Records abnormal information in real time, eliminate all hidden trouble and make the drying more secure.

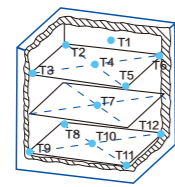


Multiple operating modes.



The program can be edited and set at any number of segments to meet the needs of various detection tests.

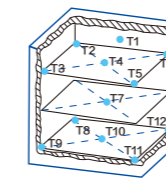
HFS-160 with Forced Convection



ASTM standard, 12 points testing

Based on PID control principle, manufactured with U-shaped 3-sided heating to achieve superior temperature control and uniformity control.

HZS-60 with Natural Convection

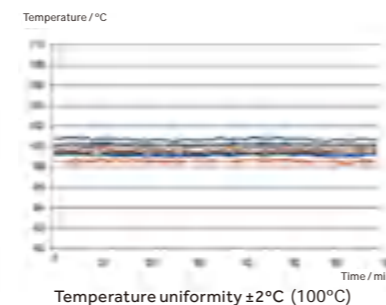
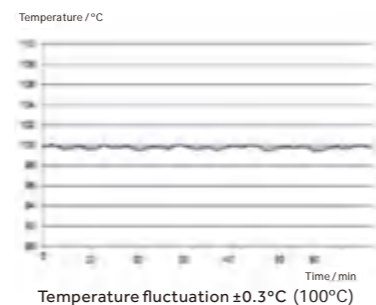


ASTM standard, 12 points testing

Based on the PID control principle, manufactured with U-shaped 3-sided heating to achieve superior temperature control and uniformity control.

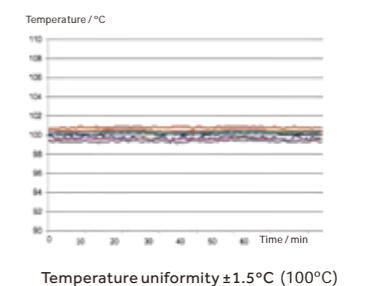
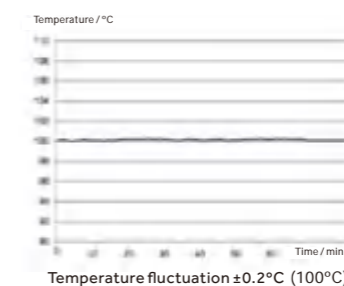
Precise Temperature Control, Energy-efficient and Quiet

High performance 3-sided heating and professional air duct design; high-quality fan components and insulation materials to ensure precise temperature control while keeping power consumption to a minimum.



Precise Temperature Control, Energy-efficient and Environment-friendly

High performance 3-sided heating and professional air duct design ensures temperature requirements are met while keeping power consumption to a minimum.



Constant Climate Dry Chamber

Scope of Application

Typically used for drying and sterilization of laboratory consumables, instruments and samples; as well as heating and curing, drying and dehydration, heat removal, moisture content determination of materials and samples in the fields of medicine, chemical industry, agricultural products as key examples. Other uses include, high temperature heat resistance tests and thermal aging tests of rubber, plastic products and electrical insulation materials. The solution is widely used in medical, enterprise, universities, scientific research institutions, environmental monitoring centers, pharmaceutical, food and drug quality monitoring centers and other related industries.



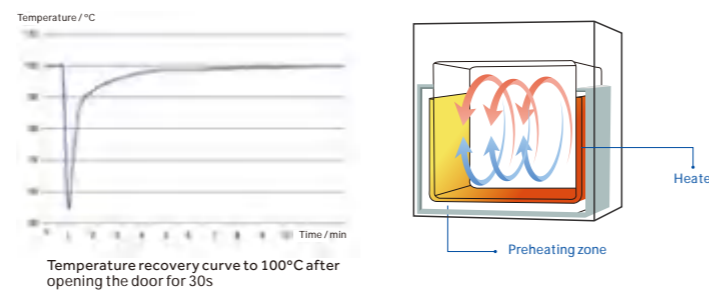
Laboratory consumables

Instruments

Thermal aging test

Rapid Recovery After Door Open

The temperature in the chamber can quickly recover after opening the door without overshoot.



Optional IoT Technology for Real-time Remote Monitoring



Through the mobile app, the status of the dry chamber can be checked in real time, and the information such as temperature abnormal alarm, sensor error alarm and door ajar can be controlled with one button, which provides more security for the experiment process.

Ergonomic Design



Personalized Interface, Easy to Transfer Data

Equipped with USB and RS485 interfaces, various interfaces meet the different needs of users to transfer data



Multiple Safety Protections

Overheat protection (OPT), over current protection (FU), sensor error detection, independent temperature limit, compliance with DIN 12880 requirements and EU 3.1 safety level; Sound, light and remote alarms which guarantee experiment safety.



High Thermal Insulation Performance, Energy Saving and Environmental Protection

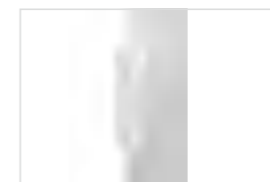
The unit is manufactured with aluminum foil insulation cotton, which improves the overall insulation performance and reduces energy consumption, lowering costs while also being environmentally-friendly.



Scalable Bulk Data Storage

The touch-screen can be increased to 64GB with capacity to store 15 years' data. The data can be exported using a USB flash drive.

Pictures in Details



Ergonomic self-locking handle, firm and durable, easy to use.



Large arc angle 304 mirror stainless steel inner liner, easy to clean.



Standard independent intelligent temperature safety controller to ensure experimental safety; RS485 achieves seamless IoT data connection.



It is equipped with portholes to facilitate external equipment monitoring to record the experimental process.

Specifications

Model	Product Series	Capacity (L)	Exterior Dimensions (W*D*H mm)	Interior Dimensions (W*D*H mm)	Packing Dimensions (W*D*H mm)	Shelf Dimensions (mm)	Shelves (standard/maximum)	Shelves Spacing (mm)
HZS-60	Natural convection	60	572*719*792	370*385*420	692*790*945	340*345	2/9	30
HFS-160	Forced convection	160	752*809*973	550*492*600	872*880*1125	520*445	2/15	30

Temperature Setting Range (°C)	Temperature Uniformity	Temperature Fluctuation	Temperature Control Precision (°C)	Heating Rate (ambient temperature 22 °C)	Recovery Time after Opening the Door for 30s
RT+10-230	±1.5°C at 100°C ±2.5°C at 150°C	±0.2°C at 100°C ±0.3°C at 150°C	±0.1	40min to 100°C 50min to 150°C	9min to 100°C 20min to 150°C
RT+5-250	±2°C at 100°C ±3°C at 150°C	±0.3°C at 100°C ±0.4°C at 150°C	±0.1	25min to 100°C 35min to 150°C	6min to 100°C 9min to 150°C



Constant
Climate Chamber

Constant Climate Chamber

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Scope of Application

Animal and plant tissue culture, drug stability test, cosmetic stability test, food shelf life test, electronic components aging test, packaging material stability test.

Product Advantages



Precise control:

- Accurate temperature and humidity control, long-term stability, 40 °C temperature uniformity ± 0.5 °C and central temperature fluctuation ± 0.2 °C, 75% humidity fluctuation $\pm 1\%$.

Power saving:

- Semiconductor technology, daily power consumption as low as 5 kWh, save up to 90% energy than compressor.

Water-saving:

- Intelligent control of PTC humidification, daily water consumption of 120-320ml, no waste water recycling, save space.

Silent:

- Semiconductor technology, low vibration, low noise, no pollution to the environment.

Product Features



Microprocessor control system:

- PID control principle, 10-inch touch screen, temperature control precision 0.1°C, humidity control precision 0.1%, temperature range 5-70 °C, humidity range 10%-90%.
- Display temperature, humidity and ambient temperature, you can query the history curve.
- Temperature alarm, humidity alarm, door alarm, sensor alarm, water shortage alarm can be connected to remote alarm interface.
- USB RS485 4-20mA LAN interface.



- High insulating performance polyurethane foam provides excellent insulation and stable cabinet temperatures reducing energy consumption



- Porthole is provided with a diameter of 35mm on the left side of the cabinet to facilitate independent testing of temperature and humidity.



- Optional electromagnetic lock, easy to be used by multiple people, independent management, safer to use.



- Expandable large capacity data storage, touch screen expandable 64GB memory, it can store 15 years of data and export it.



- Multiple protection protocols - equipped with delay start, high/low temperature and light intensity protection in line with DIN12880 requirement for over/under temperature protection



- High precision temperature sensor, dual PT100 sensors for more accurate temperature control



- High precision capacitive humidity sensor

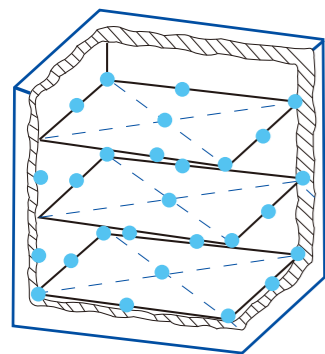


- Polyurethane foam insulation provides excellent thermal insulation, reducing energy consumption

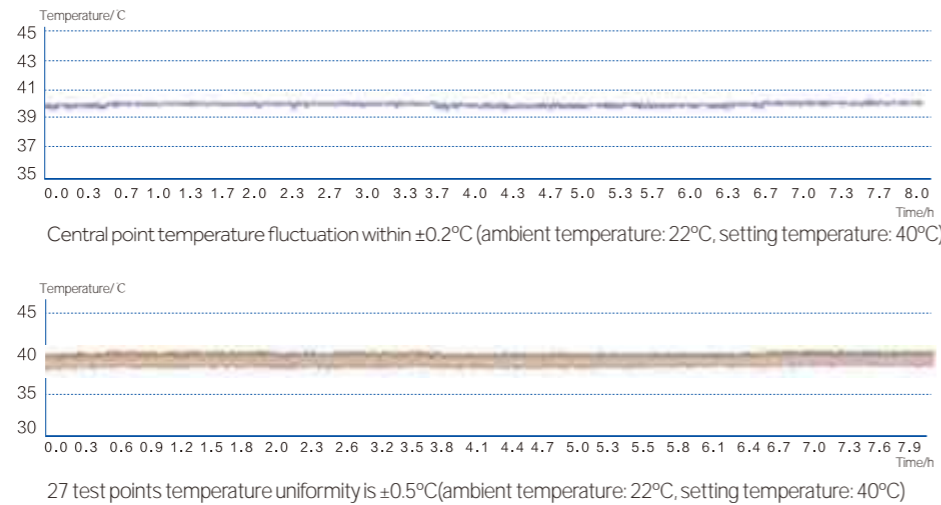


International Quality Assurance

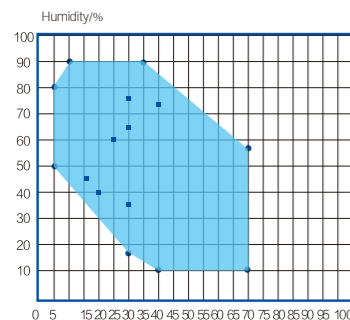
Accurate Temperature Control



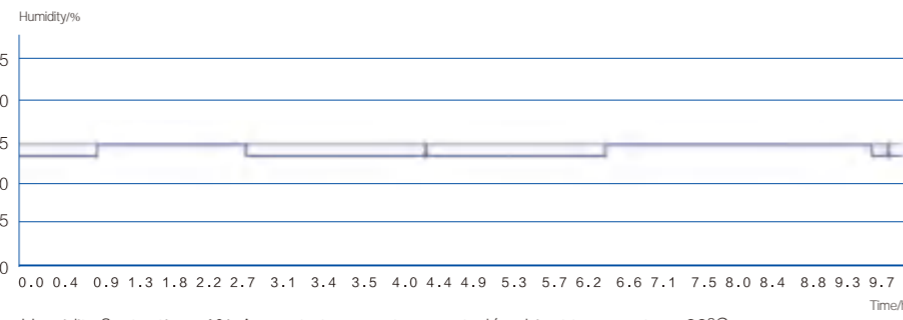
DIN12880 standard 27 test points



Accurate Humidity Control



ICH standard test points



Humidity fluctuation ±1%: Accurate temperature control (ambient temperature: 22°C, ambient humidity: 22.3%, setting temperature: 40°C, setting humidity: 75%)

Specifications

	Model	HHS-256	HHS-506	HHS-756
Construction	Chamber Volume (L)	256L	506L	756L
	Interior Chamber	stainless steel	stainless steel	stainless steel
	Exterior Chamber	Galvanized Sheet Powder Coating	Galvanized sheet powder coating	Galvanized sheet powder coating
	Access Port	35mm Diameter	35mm Diameter	35mm Diameter
Dimensions	Net/Gross Weight	kg 145/188	215/260	280/328
	Interior Dimensions (W*D*H)	mm 650*570*700	740*570*1200	1100*570*1200
	Exterior Dimensions (W*D*H)	mm 835*905*1190	930*905*1690	1290*905*1690
	Packing Dimensions (W*D*H)	mm 1030*955*1280	1110*955*1780	1380*955*1780
Shelves	Dimension / mm (W*D)	597*531	687*531	1048*531
	Standard Qty / Max Qty	2/5	2/10	2/10
	Max Weight Per Shelf	kg 20	20	20
	Structure	Slide rail, adjustable	Slide rail, adjustable	Slide rail, adjustable
Electrical	Voltage / Frequency (V/Hz)	220/50	220/50	220/50
	Power (W)	600	1100	1700
	Day Consumption at 25°C & 40% RH (kwh)	4.6	5.4	5.6
Control	Controller	The microprocessor	The microprocessor	The microprocessor
	Display	10" smart LCD screen	10" smart LCD screen	10" smart LCD screen
The Temperature Parameter	The Set Range (°C)	5~70	5~70	5~70
	Control Precision (°C)	±0.1	±0.1	±0.1
	Temperature Uniformity at 25°C	±0.2	±0.2	±0.2
	Temperature Fluctuation at 25°C	±0.1	±0.1	±0.1
	The Sensor	PT1000	PT1000	PT1000
	Rate of Temperature Rise (°C / min)	1	0.8	0.6
	30 Seconds Recovery Time After Door Opening at 40°C (min)	3	3.8	5
Humidity Parameter	Humidity Setting Range (% RH)	10~90	10~90	10~90
	Humidity Setting Accuracy (% RH)	0.1	0.1	0.1
	Humidity Fluctuation at 25°C & 40% RH (% RH)	±0.5	±0.5	±0.5
	Daily Water Consumption (ml)	120	240	320
Optional	Electromagnetic lock (password)	Y	Y	Y
	Printer	Y	Y	Y
Standard	Remote Alarm Interface	Y	Y	Y
	RS485	Y	Y	Y
	Water Level Alarm	Y	Y	Y

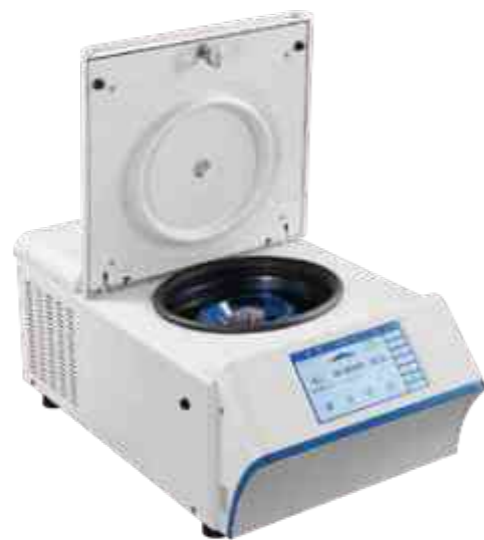
Product appearance and specifications are subject to change without notice

Desktop High-speed Refrigerated Microcentrifuge

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Scope of Application

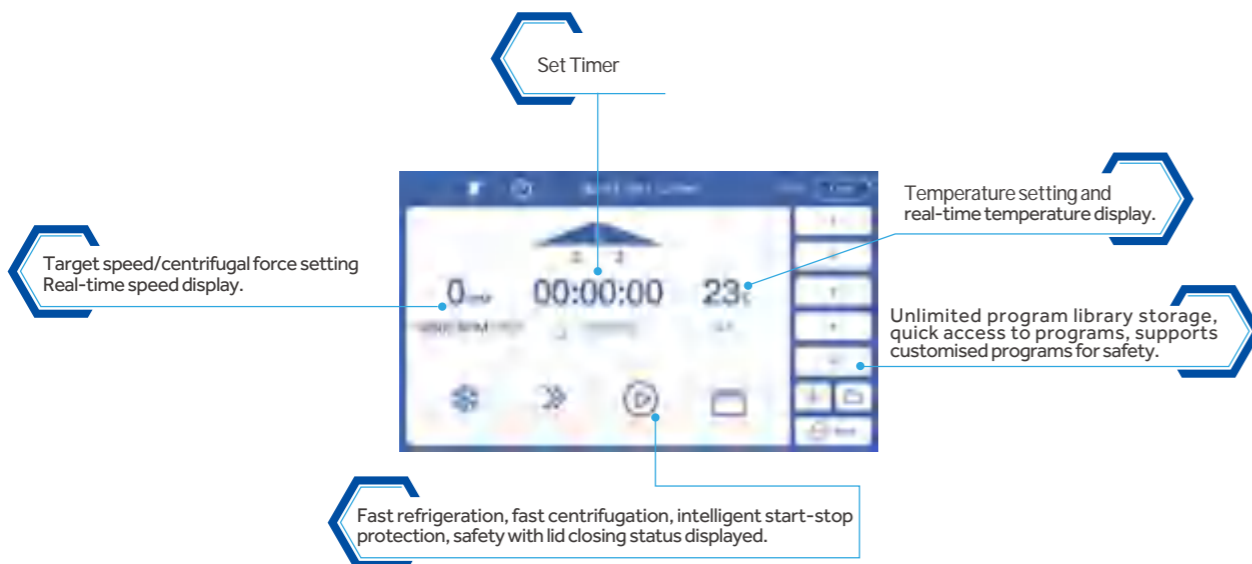
Mainly used for nucleic acid extraction, DNA/RNA separation, purification, virus separation and protein precipitation in the laboratory. Widely used in universities, third party testing organizations, disease prevention, medical and health, biological pharmaceutical and other related fields.



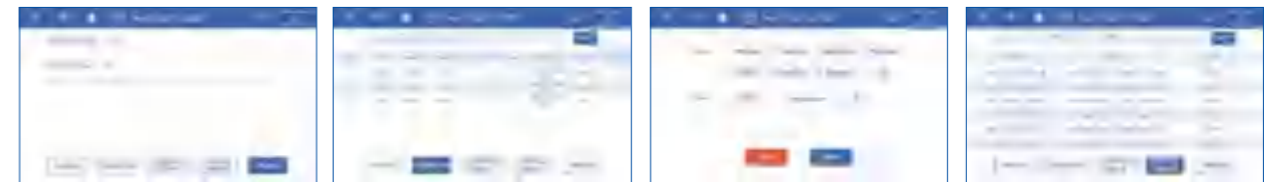
LX-165T2R

Smart and Intelligent Control, Superior Safety

Large smart screen controller provides an interactive interface which is easy to operate even in gloves.



Intelligent Centrifugal Management System



- Operation failure detection, rotor and machine service life monitoring.
- Intelligent storage of centrifugal programs, quick access to programs.
- Fast refrigeration preset, saves time.
- View abnormal alarms
- Intelligent lid locking monitoring and automatic self-locking to ensure safe operation.
- Safer by design, triple-layer construction to ensure safe use.
- Multi-level user management, effectively protects personal data.
- Intelligent monitoring of temperature, speed, vibration and rotor to ensure reliable operation.

Auto-ID Instant Rotor Identification and Rotor Service Life Statistics

- Auto-ID instant rotor identification: Install the rotor and the centrifuge will automatically identify the rotor model to ensure safe operation within rotor model limits.
- Rotor ID: each rotor is equipped with a unique ID which enables traceability of rotor information.
- Rotor service life statistics: rotor service time is recorded on the terminal and provide early warning as the rotor reaches the end of its service life.



Balance Detection

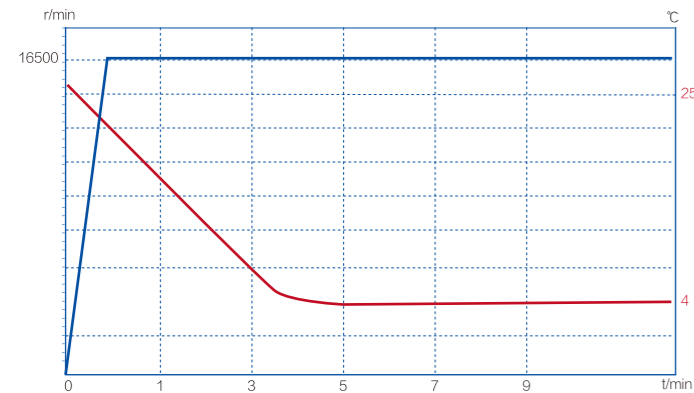
- Vibration monitoring of the whole machine: designed with six-axis gyroscope technology, the machine will stop automatically if the vibration exceeds safe limits.
- Rotor balancing detection: dynamic monitoring of the centrifugal process, active recognition of balance errors and automatic shutdown control.
- Centrifuge balancing detection: built-in electronic gradiometer, automatically monitor the unit balancing status.



Desktop High-speed Refrigerated Microcentrifuge

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Precise Temperature Control and Ultra-fast Refrigeration



- Dual frequency conversion refrigeration technology ensures rapid refrigeration, reducing waiting time.
- High precision throttling technology proactive adjusts to provide precise temperature control.
- Seamless copper tube wrapping technology to achieve high efficiency heat transfer.

Leading Global Manufacturer, Quality and Safety Guaranteed

- Extensive quality assurance and testing process ensures the reliability of operation.
- High-precision speed control technology to ensure the accuracy of experimental data.
- Advanced dynamic balance monitoring technology to ensure the safe operation of the rotor.

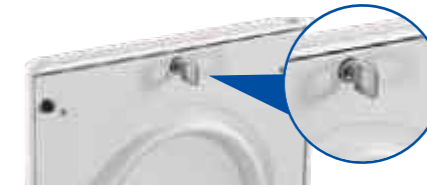


Ergonomic Design



Ergonomic Design

Designed with multiple user applications, the touchscreen is angled to provide a clear view and is comfortable and practical for users of all heights.



Smart Lid Lock

The automatic lid lock monitors the lid closing status, as the door is closed, it will tighten automatically indicating when the unit is safe to use.



USB Interface



Data can be exported using a USB interface, such as operational records, error records.

Specifications

Model	Max speed (r/min)	Speed Accuracy (rpm)	Max RCF (xg)	Sound level (dB)	Temperature Setting Range(°C)	Timer	External Dimensions (W*D*H mm)
LX-165T2R	16,500	±10	25,872	≤ 52	-20-40	1s~99 hours 59 mins 59s	340*625*248

Rotor Configuration List

Code	BE12C0Z00	BE11D0Z00	BE12E0Z00	BE12D0Z00
Picture				
Rotor Type	Optional fixed-angle rotor (Plastic cover)	Optional fixed-angle rotor (Sealed)	Optional fixed-angle rotor	Optional fixed-angle rotor (Sealed)
Max Capacity	24*1.5/2 ml	24*1.5/2 ml	4 * 8 * 0.2 ml PCR tube	12*5 ml
Max RCF (xg)	25,872	21,382	18,900	21,400
Max Speed (r/min)	16,500	15,000	15,000	15,000
Tube Size (Φ×L)	11*38	11*38	6*18	14*75

Liquid Nitrogen Storage Solutions



Biobank Series for Large Scale Storage

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Biobank series for large scale storage is designed to ensure the maximum storage capacity with the minimum consumption of liquid nitrogen to lower the overall cost of operation.

- LN₂ Splashproof
- Data Logging
- Hot Gas Bypass
- 5 Year Vacuum Warranty
- From 13,000 to 94,875 Cryovials
- Self-diagnostics
- Vapour Phase Storage
- Lockable Lid
- Liquid Phase Storage
- One-touch Defogging



Key Features

- Massive capacity between 13,000 to 94,875×2ml Vials
- Vapour phase storage is the only guaranteed method to prevent cross-contamination
- Vapour phase storage at -190°C
- 5-Year vacuum warranty
- One-touch defogging for easier access
- LN₂ splash proof ensures a safer operation
- Can be used to store all kinds of biological sample

Product Advantages

Optimal Use of Storage Space

Racks are stored on the rotating tray with an appropriate distance from the wall of the chamber. Liquid nitrogen or supercooled nitrogen vapour is filled in the space between the tray and the wall to maintain temperature uniformity. Storage space is equally divided into four or six fan-shaped storage areas which are clearly labelled. Each storage room is easily rotated to the opening of the tank for convenient sample access.



Designed for Both Liquid and Vapour Phase Storages

Each model of Biobank series for large scale storage is designed for both liquid and vapour phase storage. For vapour phase storage, samples are located away from the liquid nitrogen at a uniform temperature close to that of liquid nitrogen.

Advanced Vacuum Technology and Superinsulation Technology

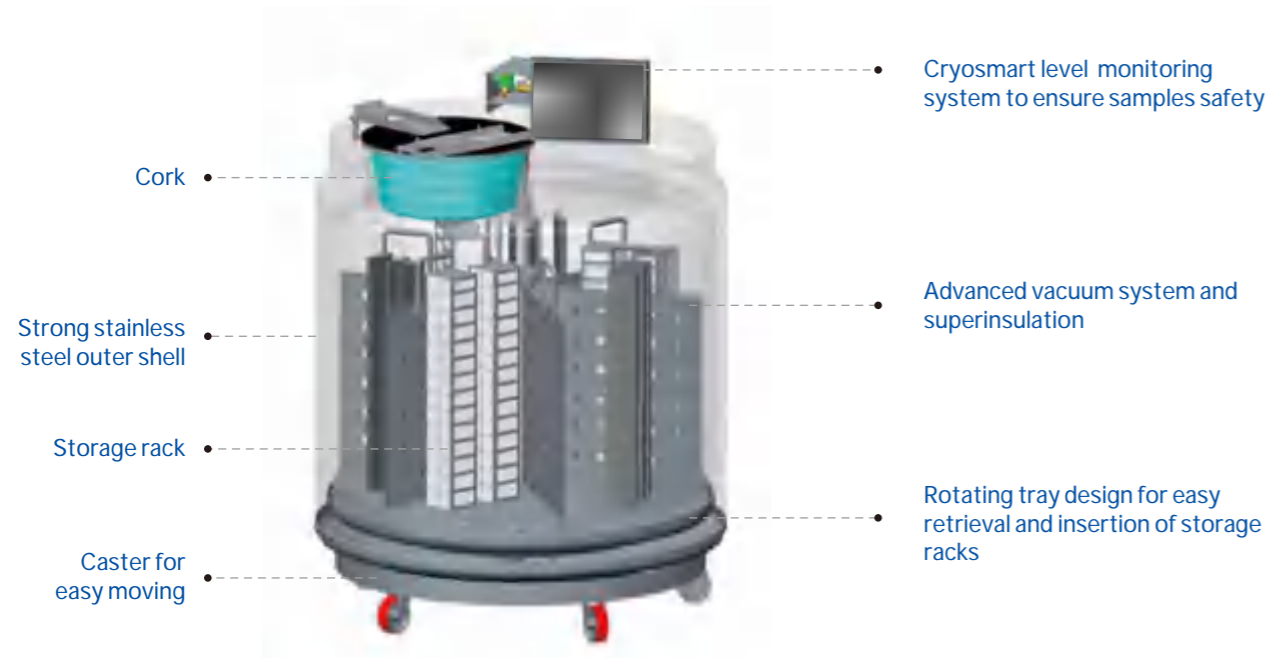
Haier Liquid Nitrogen Storage System Biobank series for large scale storage applies advanced vacuum technology and superinsulation technology to ensure storage safety and temperature uniformity while reducing the consumption of liquid nitrogen. The temperature difference of the entire storage area does not exceed 10°C even in vapour phase storage, Temperature near the top of the shelf is as low as -190°C.



Cryosmart Level Monitoring System ZJY-800N

Haier Liquid Nitrogen Storage System Biobank series for large scale storage feature the Cryosmart system for complete monitoring and controlling. High-precision temperature and liquid level sensors are used to ensure accuracy. All data and samples are protected by a secure access control system.

Biobank Series for Large Scale Storage



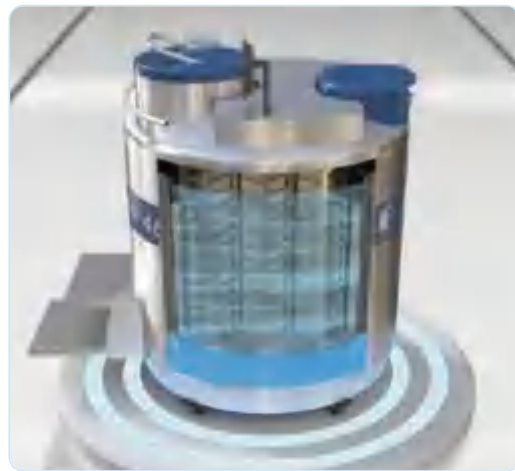
The unique design can reduce the amount of water vapor solidification on the outer surface of the neck, the container is reinforced at liquid nitrogen temperature to extend the physical service life of the container.

The large-caliber stainless steel liquid nitrogen biological container is matched with a self-pressurizing replenishment tank, which is suitable for scientific research institutions with a small sample storage capacity.

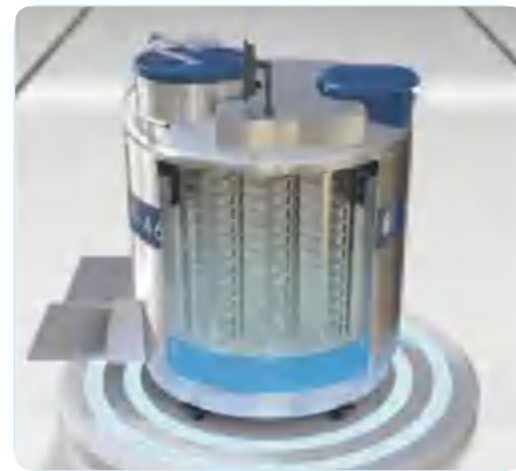


Liquid and Gas Phase

Liquid Phase



Gas Phase



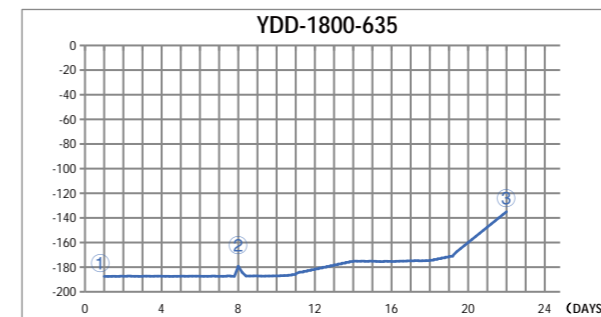
Top of the Container



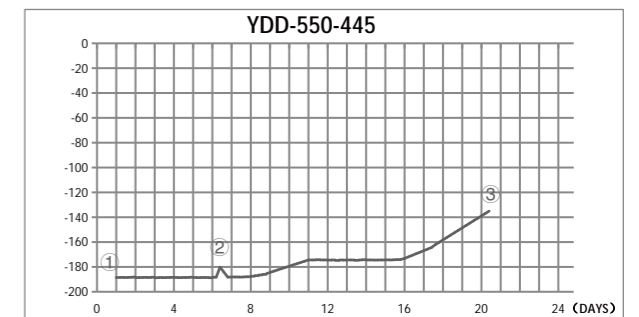
Liquid Feed System



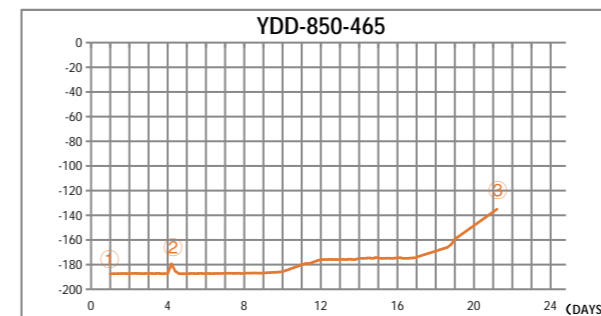
Temperature Test Graph



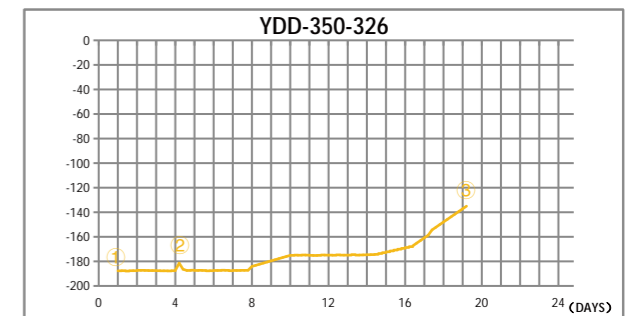
- ① Precooling stage when freezer filled to high level
- ② Lid open test, -179.2°C max
- ③ With no liquid nitrogen supply, the temperature maintained below -135°C for 22 days



- ① Precooling stage when freezer filled to high level
- ② Lid open test, -180.2°C max
- ③ With no liquid nitrogen supply, the temperature maintained below -135°C for 20 days



- ① Precooling stage when freezer filled to high level
- ② Lid open test, -179.4°C max
- ③ With no liquid nitrogen supply, the temperature maintained below -135°C for 21 days

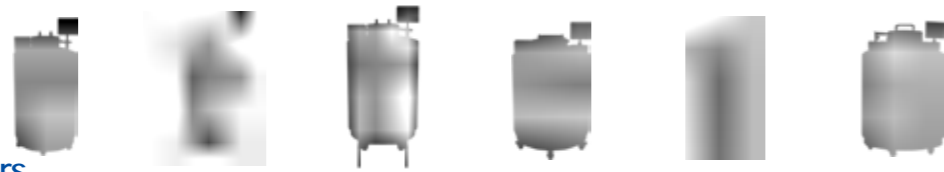


- ① Precooling stage when freezer filled to high level
- ② Lid open test, -181.4°C max
- ③ With no liquid nitrogen supply, the temperature maintained below -135°C for 19 days

Temp Test indicates typical performance of Haier Biobank freezer with factory recommended level settings. Actual performance may vary with atmospheric conditions and usage.

Biobank Series for Large Scale Storage

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Technical Parameters

Model	YDD-350-326	YDD-370-326	YDD-450-326	YDD-550-445	YDD-750-445	YDD-850-465
2ml Volume	13K	16K	21K	27K	38K	43K
Maximum Storage Capacity						
2 ml Vials (Internal Thread)	13000	15600	21000	27000	37800	42900
Freeze Rack (100 wells)	12	12	14	24	24	32
Freeze Rack (25 wells)	4	4	4	12	12	4
Layers of each Rack	10	12	14	10	14	13
5 ml Vials (Internal Thread)	5360	6232	8638	11220	17952	18844
Freeze Rack (81 wells)	12	12	14	24	24	32
Freeze Rack (25 wells)	4	4	4	12	12	4
Layers of each Rack	5	6	7	5	8	7
Performance						
Volume of LN ₂ (L)	350	370	460	587	783	890
Volume of LN ₂ under the Tray (L)	55	55	55	80	80	135
Dimensions						
Inside Neck Diameter (mm)	326	326	326	445	445	465
Height (mm)	1263	1370	1495	1266	1486	1499
Operating Height (mm)	1263	1096	1212	970	995	980
Outside Diameter (mm)	875	875	875	1104	1104	1190
Door Width Requirement (mm)	895	895	895	1124	1124	1210
Empty Weight (kg)	219	230	277	328	372	441
Full Weight (kg)	502	529	649	802	1005	1160
Shipping Weight (kg)	358	438	470	520	616	702

Blood bag capacity

Model	YDD-350-326			YDD-370-326			YDD-450-326			YDD-550-445			YDD-750-445			YDD-850-465		
Bag Specifications	Total No. of Bags	Rack Layers	No. of Racks	Total No. of Bags	Rack Layers	No. of Racks	Total No. of Bags	Rack Layers	No. of Racks	Total No. of Bags	Rack Layers	No. of Racks	Total No. of Bags	Rack Layers	No. of Racks	Total No. of Bags	Rack Layers	No. of Racks
25 ml (791 OS/U)	1296	6	216	1296	6	216	1728	8	216	2376	6	396	3168	8	396	3360	7	480
50 ml (4R9951)	792	6	132	792	6	132	1056	8	132	1416	6	236	1888	8	236	2072	7	296
500 ml (DF - 200)	168	3	56	168	3	56	280	5	56	336	3	112	560	5	112	544	4	136
250 ml (4R9953)	300	3	100	300	3	100	500	5	100	552	3	184	920	5	184	944	4	236
500 ml (4R9955)	192	3	64	192	3	64	320	5	64	408	3	136	680	5	136	640	4	160
700 ml (DF - 700)	96	3	32	96	3	32	128	4	32	204	3	68	272	4	68	320	4	80

Technical Parameters



Model	YDD-1000-465	YDD-1300-635	YDD-1600-635	YDD-1800-635
2ml Volume	51K	59K	76K	95K
Maximum Storage Capacity				
2 ml Vials (Internal Thread)	51000	58500	76050	94875
Freeze Rack (100 wells)	30	54	54	60
Freeze Rack (25 wells)	16	18	18	13
Layers of each Rack	15	10	13	15
5 ml Vials (Internal Thread)	22640	28944	33768	46665
Freeze Rack (81 wells)	30	54	54	60
Freeze Rack (25 wells)	16	18	18	13
Layers of each Rack	8	6	7	9
Performance				
Volume of LN ₂ (L)	1014	1340	1660	1880
Volume of LN ₂ under the Tray (L)	135	265	300	320
Dimensions				
Inside Neck Diameter (mm)	465	635	635	635
Height (mm)	1619	1342	1534	1662
Operating Height (mm)	1090	997	967	1097
Outside Diameter (mm)	1190	1565	1565	1565
Door Width Requirement (mm)	1210	1585	1585	1585
Empty Weight (kg)	495	851	914	985
Full Weight (kg)	1314	1934	2255	2504
Shipping Weight (kg)	926	1168	1426	1520

Blood bag capacity

Model	YDD-1000-465			YDD-1300-635			YDD-1600-635			YDD-1800-635		
Bag Specifications	Total No. of Bags	Rack Layers	No. of Racks	Total No. of Bags	Rack Layers	No. of Racks	Total No. of Bags	Rack Layers	No. of Racks	Total No. of Bags	Rack Layers	No. of Racks
25 ml (791 OS/U)	4356	9	484	4716	6	786	5502	7	786	7758	9	862
50 ml (4R9951)	2682	9	298	2916	6	486	3402	7	486	4905	9	545
500 ml (DF - 200)	1180	5	236	666	3	222	888	4	222	1290	5	258
250 ml (4R9953)	670	5	134	1170	3	390	1560	4	390	2095	5	419
500 ml (4R9955)	810	5	162	828	3	276	1104	4	276	1520	5	304
700 ml (DF - 700)	400	5	80	396	3	132	528	4	132	775	5	155

Biobank Series for Large Scale Storage

Racks (vertical type) and Blood bag racks

	Racks (vertical type)	25 ml Blood bag racks	50 ml Blood bag racks
YDD-350-326 YDD-370-326			
YDD-450-326			
YDD-550-445 YDD-750-445			
YDD-850-465			
YDD-1000-465			
YDD-1300-635 YDD-1600-635			
YDD-1800-635			

Smart Series (Square Racks)

The smart, IoT and cloud management system monitors temperature and liquid levels simultaneously to provide accurate and real-time information on the critical parameters to ensure ultimate sample safety.

- IoT and Cloud Management
- Updated Design
- Low Energy Consumption
- New Lock Design
- Multiple Level of Protections
- High Performance Stability
- Temperature and Level Display

Key Features

- 5 models from 2,400 to 6,000 cryovial capacity
- 5 years vacuum warranty
- Durable aluminium construction
- Real time monitor of temperature and level
- Cloud data storage for traceability
- Low consumption rate and high performance stability
- New lock design

Product Advantages

Colour identification for Rack handles

Rack handles are colour-coded for ease of separating storage zones and managing samples.

Double lock and double control design

The new double lock and double control design requires two people to open at the same time to ensure

Dual monitoring respectively for temperature and liquid level

Storage temperature and liquid level are automatically monitored by a high precision controller. Accurate and real-time information ensures samples safety.



Smart Series (Square Racks)

Multilayer protection for ultimate safety

Temperature and level are monitored in real time to safeguard the storage environment. Alarms can be transmitted through email, IM and wechat.

Cloud data storage for traceability

Temperature and level data can be transmitted to Haier's IoT platform for storage. All data is traceable and stored permanently

Low consumption rate and high performance stability

Automated manufacture ensures build quality and reliable vacuum which delivers stable and uniform temperature performance as well as low LN₂ consumption rates.



Accessories



Technical Parameters

Model	YDS-65-216-FZ	YDS-95-216-FZ	YDS-115-216-FZ	YDS-145-216-FZ	YDS-175-216-FZ
Maximum Storage Volume					
No. of Rack	6	6	6	6	6
2ml Storage Vials (100/box)	2400	3000	3600	4800	6000
Layers in Rack	4	5	6	8	10
5ml Storage Vials (81/box)	—	972	1458	1944	2430
Layers in Rack	—	2	3	4	5
Function					
Liquid Nitrogen Volume (L)	65	95	115	145	175
Static Evaporation Rate* (%/d)	0.78	0.90	0.90	0.94	0.94
Static Holding Time** (Day)	83	105	127	154	186
Dimensions					
Neck Opening (mm)	216	216	216	216	216
Overall Height (mm)	712	774	846	946	1060
Overall Diameter (mm)	681	681	681	681	681
Empty Weight (kg)	39.3	42.5	43.7	49.9	54.8
Full Weight (kg)	81.5	112.3	133.5	158.9	199.5
Shipping Weight (kg)	63.8	67.9	71.2	82.1	91.3

* Static evaporation and static holding time are theoretical values. Actual evaporation and holding time are affected by usage, atmospheric conditions and manufacturing tolerances.

** Static Holding Time: the amount of days it takes for all of the LN to evaporate out after container is filled with liquid nitrogen to pre-cool and reach thermal equilibrium and the liquid nitrogen filling rate reaches 100% under standard atmospheric condition.

Medium Sized Storage Series (Square Racks)

Medium Sized Storage Series (Square Racks) features low LN₂ consumption and relatively small footprint for medium capacity sample storage.

- 5 Year Vacuum Warranty
- Durable
- Cryobox Storage
- Secure
- High Thermal Efficiency
- Liquid and Vapour Storage



Medium Sized Storage Series (Square Racks)

Key Features

- Heavy duty lockable enclosure offers excellent security
- Compatible with all major cryobox brands
- Durable aluminium construction
- Temperature monitoring available
- Liquid or vapour phase option available
- High thermal efficiency
- 5 year vacuum warranty
- Ultra-low evaporation loss

Product Advantages

ULT Storage with Extremely Low LN₂ Evaporation Loss

Freezer racks are in the ultra-low temperature environment with extremely low LN₂ evaporation. Even stored in vapour phase, the temperature will be below -190°C for a long time.

Advanced Vacuum Technology and Superinsulation Technology

Advanced vacuum and insulation technologies ensure cryopreservation for up to four months.

Compatible for Blood Bag Storage

Suitable for blood bag applications, the racks can be adapted to provide temporary blood bag storage before transferring bags to larger LN₂ storage tanks.



Liquid Nitrogen Temperature Detector

The temperature monitor provides continuous and reliable monitoring of the temperature in the container. It is the ideal choice for long-term monitoring of sample storage temperature and reminding users to add liquid nitrogen.

The temperature monitor ZTC-100A has real-time temperature display function, and can also provide the following alarms:

- * Over temperature alarm
- * Sensor error acousto-optic alarm



ZTC-100A

Technical Parameters

Model	YDS-65-216-F	YDS-95-216-F	YDS-115-216-F	YDS-140-216-F	YDS-175-216-F
Maximum Storage Capacity					
No. of Rack	6	6	6	6	6
No. 2.0 ml Cryovials (100 / Box)	2400	3000	3600	4800	6000
No. of Boxes in (2ml each Rack)	4	5	6	8	10
No. 5.0 ml Cryovials (81 / Box)	-	972	1458	1944	2430
No. of Boxes in (5ml each Rack)	-	2	3	4	5
Performance					
Volume of LN ₂ (L)	65	95	115	145	175
Static Evaporation Rate* (L/Day)	0.78	0.90	0.90	0.94	0.94
Static Holding Time** (Day)	83	105	127	154	186
Dimensions					
Neck Opening Diameter (mm)	216	216	216	216	216
Height (mm)	712	774	846	946	1060
Outer Diameter (mm)	681	681	681	681	681
Empty Weight (kg)	38.3	41.3	42.3	48.9	53.8
Full Weight (kg)	80.8	112.4	132.8	157.3	198.5
Shipping Weight (kg)	61.8	65.9	72.9	80.1	89.2

* Static evaporation and static holding time are theoretical values. Actual evaporation and holding time are affected by usage, atmospheric conditions and manufacturing tolerances.
 ** Static Holding Time: the amount of days it takes for all of the LN to evaporate out after container is filled with liquid nitrogen to pre-cool and reach thermal equilibrium and the liquid nitrogen filling rate reaches 100% under standard atmospheric condition.

Accessories



Small Sized Storage Series (Square Racks)

Widely used within many laboratories, this small-sized storage series features low LN₂ consumption and dual handle design. Stores between 600 and 1100 vials in square racks and cryo boxes.

- 5 Year Vacuum Warranty
- High Thermal Efficiency
- Lightweight
- 30 Litre to 50 Litre Capacity
- Durable
- Secure
- Super-Insulation
- Ideal for Lab Applications



Key Features

- Heavy duty lockable enclosure offers excellent security
- Strong, lightweight aluminium construction
- Dual handles
- Temperature monitoring available
- Roller bases available
- High thermal efficiency
- 5 year vacuum warranty
- Ultra-low LN₂ evaporation loss

Product Advantages

Low LN₂ Consumption and Maximum Storage Efficiency

Haier Biomedical's Small Sized Storage Series (Square Racks) Liquid Nitrogen Storage System features low LN₂ consumption and small storage capacity for laboratory applications. The lightweight containers have a smaller footprint whilst providing maximum efficiency of cryogenic storage capacity.

Advanced Vacuum Technology and Super-insulation Technology

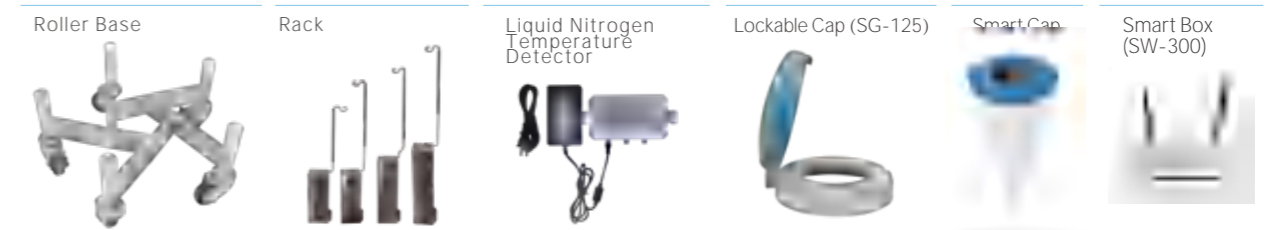
Advanced vacuum and insulation technologies provide ultra-low liquid nitrogen evaporation loss and ensure up to three months cryogenic storage.

Five Models Available

Small Sized Storage Series (Square Racks) offers Five models with different capacity from 100, 600, 750, 900 to 1100 standard 2 ml cryovials. All models are supplied with stainless steel racks and cryogenic boxes.



Accessories



Small Sized Storage Series (Square Racks)

Technical Parameters

Model	YDS-10-125	YDS-30-125	YDS-35-125	YDS-47-127	YDS-50B-125
Maximum Storage Capacity					
No. of Rack	1	6	6	6	6
1.2&2 ml Cryovials (25 per box)	100	600	750	1110	900
No. of Boxes in (Rack)	4	4	5	5	6
Performance					
Volume of LN ₂ (L)	10	31.5	35.5	47	50
Static Evaporation* (L/Day)	0.42	0.35	0.36	0.36	0.45
Static Holding Time** (Day)	24	90	97	130	110
Dimensions					
Opening Diameter (mm)	125	125	125	127	125
Height (mm)	625	704	748	718	818
Outside Diameter (mm)	300	462	462	508	462
Empty Weight (kg)	6.3	13	14.5	18.2	17.3
Full Weight (kg)	15.1	38.9	43.2	60.9	62.4
Shipping Weight (kg)	9.6	19.3	21.9	30.7	30.3

* Static evaporation and static holding time are theoretical values. Actual evaporation and holding time are affected by usage, atmospheric conditions and manufacturing tolerances.

** Static Holding Time: the amount of days it takes for all of the LN to evaporate out after container is filled with liquid nitrogen to pre-cool and reach thermal equilibrium and the liquid nitrogen filling rate reaches 100% under standard atmospheric condition.

Product Description






SmartCap is a low energy consumption IoT-based module that can monitor liquid nitrogen level and temperature in a liquid nitrogen tank. It is suitable for aluminium alloy liquid nitrogen tanks with opening port size of 50 mm, 80 mm, 125 mm, 216 mm. The built-in high efficiency lithium battery can operate the device for more than two years.



SmartCap

Product Characteristics



-  Independent, high accuracy measuring system for liquid level and temperature
-  Real time display of level and temperature, alarm setting via phone message, email, and wechat
-  Wireless transmission of level and temperature data to a data interrupter
-  Fluid level and temperature data uploaded remotely to cloud terminals for recording, printing, and storage
-  Built-in high efficiency lithium battery for longevity

High Capacity Series for Storage or Transport (Round Canisters)

High Capacity Series for Storage or Transport (Round Canisters) provides two cryopreservation solutions for long-term static storage and transportation of biological samples.

- Numbered Index Canister Locations
- High Capacity
- High Thermal Efficiency
- 5 Year Vacuum Warranty
- Extended Hold Time
- LN₂ Dispenser
- Round Canisters for Straw Storage
- Lockable
- Roller Bases Available



High Capacity Series for Storage or Transport (Round Canisters)

Key Features

- Strong and lightweight aluminium construction
- Heavy duty lockable enclosure offers excellent security
- Numbered index location points for canisters
- Straw storage
- LN₂ dispense pump available
- Roller bases available
- High thermal efficiency
- 5 year vacuum warranty
- Ultra-low evaporation loss

Product Advantages

Narrow neck design and excellent thermal conductivity reduces evaporation loss of liquid nitrogen to extend storage times.

Large-capacity models have wider necks for easy access to biological samples.



Long-term cryopreservation models have narrower necks with less heat intrusion.

Technical Parameters

Model		YDS-2-30	YDS-2-35	YDS-3	YDS-6	YDS-10	YDS-10-80
Maximum Capacity	No. of Canister	3 (0)	3 (3)	6 (0)	6 (0)	6 (0)	6 (0)
	No. of Straws (Single Layer) (0.5ml each canister)	90	165	792	792	792	2244
	No. of Straws (Single Layer) (0.25ml each canister)	204	330	1788	1788	1788	5022
	No. of Straws (Double Layer) (0.5ml each canister)	—	—	—	—	—	—
	No. of Straws (Double Layer) (0.25ml each canister)	—	—	—	—	—	—
	Performance	Volume of LN ₂ (L)	2	2	3	6	10
Static Evaporation* (L/Day)		0.07	0.08	0.12	0.12	0.12	0.21
Static Holding Time** (Day)		28	24	26	52	86	48
Dimensions	Opening Diameter (mm)	30	35	50	50	50	80
	Height (mm)	399	428	435	482	552	557
	Outside Diameter (mm)	223	204	223	300	300	300
	Canister Outside Diameter (mm)	19	25	38	38	38	63
	Outside Height (mm)	120	120	120	120	120	120
	Empty Weight (kg)	2.8	2.6	3.1	4.8	6.1	6.2
	Full Weight (kg)	4.5	4.4	6	9.9	14.5	14.7
Shipping Weight (kg)	5.1	4.9	5.8	8	9	9.3	

Model		YDS-10-125	YDS-13	YDS-15	YDS-20	YDS-30
Maximum Capacity	No. of Canister	1 (0)	6 (0)	6 (0)	6 (0)	6 (0)
	No. of Straws (Single Layer) (0.5ml each canister)	854	—	792	792	792
	No. of Straws (Single Layer) (0.25ml each canister)	1940	—	1788	1788	1788
	No. of Straws (Double Layer) (0.5ml each canister)	—	1284	—	1284	1284
	No. of Straws (Double Layer) (0.25ml each canister)	—	2832	—	2832	2832
Performance	Volume of LN ₂ (L)	10	13	15	20	30
	Static Evaporation* (L/Day)	0.43	0.12	0.11	0.12	0.12
	Static Holding Time** (Day)	24	109	134	168	254
Dimensions	Opening Diameter (mm)	125	50	50	50	50
	Height (mm)	625	623	591	672	705
	Outside Diameter (mm)	300	310	394	394	462
	Canister Outside Diameter (mm)	97	38	38	38	38
	Outside Height (mm)	120	276	120	120/276	120/276
	Empty Weight (kg)	6.3	6.3	8.5	9.5	12.9
	Full Weight (kg)	15.1	17.3	20.5	28.1	36.6
	Shipping Weight (kg)	8.6	11	13	15	18

Model		YDS-30-80	YDS-30-125	YDS-35	YDS-35-80	YDS-35-125	YDS-47-127
Maximum Capacity	No. of Canister	6 (0)	6 (0)	6 (0)	6 (0)	6 (0)	10 (10)
	No. of Straws (Single Layer) (0.5ml each canister)	2244	5124	792	2244	5124	6714
	No. of Straws (Single Layer) (0.25ml each canister)	5022	11952	1788	5022	11640	14070
	No. of Straws (Double Layer) (0.5ml each canister)	3624	—	1284	3624	9048	10704
	No. of Straws (Double Layer) (0.25ml each canister)	8460	—	2832	8460	20760	23604
Performance	Volume of LN ₂ (L)	30	30	35	35	35	47
	Static Evaporation* (L/Day)	0.21	0.35	0.12	0.22	0.37	0.36
	Static Holding Time** (Day)	147	90	286	159	97	130
Dimensions	Opening Diameter (mm)	80	125	50	80	125	127
	Height (mm)	709	704	749	753	748	718
	Outside Diameter (mm)	462	462	462	462	462	508
	Canister Outside Diameter (mm)	63	97	38	63	97	72
	Outside Height (mm)	120/276	120	120/276	120/276	120/276	276
	Empty Weight (kg)	13	13	14.2	14.5	14.6	18.2
	Full Weight (kg)	37	38.9	42.7	42.9	43.2	54
Shipping Weight (kg)	18.3	19.3	20	20.7	22	28	

High Capacity Series for Storage or Transport (Round Canisters)

Model		YDS-20B	YDS-30B	YDS-35B
Maximum Capacity	No. of Canister	6 (0)	6 (0)	6 (0)
	No. of Straws (Single Layer) (0.5ml each canister)	792	792	792
	No. of Straws (Single Layer) (0.25ml each canister)	1788	1788	1788
	No. of Straws (Double Layer) (0.5ml each canister)	1284	1284	1284
	No. of Straws (Double Layer) (0.25ml each canister)	2832	2832	2832
Performance	Volume of LN ₂ (L)	20	30	35
	Static Evaporation* (L/Day)	0.2	0.2	0.2
	Static Holding Time** (Day)	101	159	179
Dimensions	Opening Diameter (mm)	50	50	50
	Height (mm)	672	705	749
	Outside Diameter (mm)	394	462	462
	Canister Outside Diameter (mm)	38	38	38
	Outside Height (mm)	120/276	120/276	120/276
	Empty Weight (kg)	9.5	12.9	14.2
	Full Weight (kg)	27.9	37.1	42.8
	Shipping Weight (kg)	15.1	18.3	20.1

Model		YDS-35B-80	YDS-35B-125	YDS-50B	YDS-50B-125
Maximum Capacity	No. of Canister	6 (0)	6 (0)	6 (0)	6 (0)
	No. of Straws (Single Layer) (0.5ml each canister)	2244	5124	792	5124
	No. of Straws (Single Layer) (0.25ml each canister)	5022	11640	1788	11640
	No. of Straws (Double Layer) (0.5ml each canister)	3624	9048	1284	9048
	No. of Straws (Double Layer) (0.25ml each canister)	8460	20760	2832	20760
Performance	Volume of LN ₂ (L)	35	35	50	50
	Static Evaporation* (L/Day)	0.3	0.41	0.24	0.45
	Duration of Normal Operation** (Day)	119	86	213	110
Dimensions	Opening Diameter (mm)	80	125	50	125
	Height (mm)	753	748	810	817
	Outside Diameter (mm)	462	462	462	462
	Canister Outside Diameter (mm)	63	97	38	97
	Outside Height (mm)	120/276	120/276	120/276	120/276
	Empty Weight (kg)	14.5	14.6	17.2	17.3
	Full Weight (kg)	43	43.5	60.3	62
	Shipping Weight (kg)	20.7	22	24	25.4

† A(B): A for maximum number of canisters, B for number of canisters in standard configuration

* Static evaporation and static holding time are theoretical values. Actual evaporation and holding time are affected by usage, atmospheric conditions and manufacturing tolerances.

** Static Holding Time: the amount of days it takes for all of the LN to evaporate out after container is filled with liquid nitrogen to pre-cool and reach thermal equilibrium and the liquid nitrogen filling rate reaches 100% under standard atmospheric condition.

Vials Cane Specification

Canister	Height 120mm, Diameter 38mm (50mm neck)		
Vials	Canes/Canister	Vials/Cane	Vials/Canister
0.5ml	4	3	12
1.5ml	4	3	12
2ml	4	3	12
3ml	4	3	12
5ml	4	1	4

Canister	Height 120mm, Diameter 63mm (80mm neck)		
Vials	Canes/Canister	Vials/Cane	Vials/Canister
0.5ml	16	3	48
1.5ml	16	3	48
2ml	16	3	48
3ml	16	3	48
5ml	16	1	16

Canister	Height 120mm, Diameter 72mm (127mm neck)		
Vials	Canes/Canister	Vials/Cane	Vials/Canister
0.5ml	21	3	63
1.5ml	21	3	63
2ml	21	3	63
3ml	21	3	63
5ml	21	1	21

Canister	Height 120mm, Diameter 97mm (125mm neck)		
Vials	Canes/Canister	Vials/Cane	Vials/Canister
0.5ml	---	---	---
1.5ml	40	3	120
2ml	40	3	120
3ml	40	3	120
5ml	40	1	40

Canister	Height 120mm, Diameter 104mm (127mm neck)		
Vials	Canes/Canister	Vials/Cane	Vials/Canister
0.5ml	---	---	---
1.5ml	46	3	138
2ml	46	3	138
3ml	46	3	138
5ml	46	1	46

Canister	Height 276mm, Diameter 38mm (50mm neck)		
Vials	Canes/Canister	Vials/Cane	Vials/Canister
0.5ml	4	6	24
1.5ml	4	6	24
2ml	4	6	24
3ml	4	6	24
5ml	4	3	12

Canister	Height 276mm, Diameter 63mm (80mm neck)		
Vials	Canes/Canister	Vials/Cane	Vials/Canister
0.5ml	16	6	96
1.5ml	16	6	96
2ml	16	6	96
3ml	16	6	96
5ml	16	3	48

Canister	Height 276mm, Diameter 72mm (127mm neck)		
Vials	Canes/Canister	Vials/Cane	Vials/Canister
0.5ml	21	6	126
1.5ml	21	6	126
2ml	21	6	126
3ml	21	6	126
5ml	21	3	63

Canister	Height 276mm, Diameter 97mm (125mm neck)		
Vials	Canes/Canister	Vials/Cane	Vials/Canister
0.5ml	---	---	---
1.5ml	40	6	240
2ml	40	6	240
3ml	40	6	240
5ml	40	3	120

Canister	Height 276mm, Diameter 104mm (127mm neck)		
Vials	Canes/Canister	Vials/Cane	Vials/Canister
0.5ml	---	---	---
1.5ml	46	6	276
2ml	46	6	276
3ml	46	6	276
5ml	46	3	138

Accessories



Vial



Vial cane



Canister

Dryshipper Series for Transportation (Round Canisters)

283/284

Dryshipper Series for Transportation (Round Canisters) is designed for safe sample transportation under cryogenic conditions (vapour phase storage, temperature under -190°C). Since the risk of LN₂ release is avoided, it is suitable for air transportation of samples.

- Rugged and Durable
- 3 Year Vacuum Warranty
- Cryo Absorbant
- Vapour Phase Storage
- Secure
- No LN₂ Spillage



Key Features

- Straw and cryovial storage options
- Rugged and durable aluminium construction
- Designed to ensure no LN₂ spillage
- Vapour phase cryogenic storage
- Faster LN₂ fill times
- Lockable lids
- 3 year vacuum warranty

Product Advantages

Liquid Nitrogen Adsorption

Adsorbent materials are used to absorb and retain LN₂ for safe transport. No spillover of LN₂ can occur even when the tank is capsized.

Stainless Steel Mesh

Special stainless steel mesh divides storage space and LN₂ absorbents to prevent absorbent materials from contaminating the samples.

Complete Accessories Set

All models are offered a variety of stainless steel canisters and polycarbonate cryogenic boxes. Locking cover is optional.



Accessories

Plastic Cryo Box



Canister+Rack



Rack(vertical type)



Dryshipper Series for Transportation (Round Canisters)

Technical Parameters

Model	YDH-3	YDH-6-80	YDH-10 -125-F	YDH-15 -216-F	YDH-25 -216-F
Maximum Storage Capacity					
No. of Canister	1	1	1	1	1
No. of Straws (0.5ml / EA)	132	374	854	—	—
No. of Straws (0.25ml / EA)	298	837	1940	—	—
No. of 2.0 ml Cryovials	—	—	100	300	500
No. of Boxes in (2ml per holder)	—	—	4	3	5
Performance					
Volume of LN ₂ (L)	3	6	10	15	25
Absorbable Volume of LN ₂ (L)	1.3	2.9	3.4	6	9
Static Evaporation* (L/Day)	0.16	0.2	0.43	1.5	0.89
Liquid Phase Static Holding Time**(Day)	20	37	23	10	29
Vapour Phase Static Holding Time*** (Day)	8	14	8	4	10
Dimensions					
Opening Diameter (mm)	50	80	125	216	216
Height (mm)	435	487	625	540	716
Outside Diameter (mm)	223	300	300	394	394
Canister Outside Diameter (mm)	38	63	97	—	—
Outside Height (mm)	120	120	120	—	—
Empty Weight (kg)	3.2	4.9	6.7	8.5	15
Full Weight (kg)	4.7	7.5	11	25	30
Shipping Weight (kg)	5.5	7.7	9.7	15.2	20.5

* Static evaporation and static holding time are theoretical values. Actual evaporation and holding time are affected by usage, atmospheric conditions and manufacturing tolerances.

** Liquid Phase Static Holding Time: the amount of days it takes for all of the LN to evaporate out after container is filled with liquid nitrogen to pre-cool and reach thermal equilibrium and the liquid nitrogen filling rate reaches 100% under standard atmospheric condition.

*** Vapour Phase Static Holding Time: the amount of days it takes for all of the LN to evaporate out after pouring liquid nitrogen into container to making absorbent materials fully absorb LN under standard atmospheric condition.

Self-pressurized Series for LN₂ Storage and Supply

Liquid Nitrogen Supplement Series for LN₂ Storage and Supply incorporates the latest innovation, its unique design utilises the pressure generated from the vapourisation of a small amount liquid nitrogen to discharge LN₂ into other containers. Storage capacities range from 5 to 500 litres.

- 5 Year Vacuum Warranty
- Decant Valves
- Liquid Storage
- Stainless Steel Construction
- Pressure Raising
- Integral Safety Mechanisms



Self-pressurized Series for LN₂ Storage and Supply

Key Features

- All models are equipped with safety valves
- All welded stainless steel construction
- Rotary ring construction
- Labelled valves for easy identification
- 5 year vacuum warranty

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.

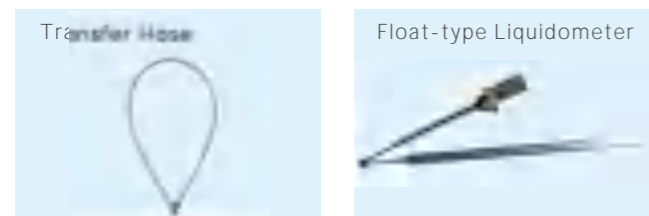
Variety of accessories

Each Self-pressurized Series for LN₂ Storage and Supply model is equipped with a pressure valve, a drain valve, a relief valve, and a pressure gauge.

Casters

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

Accessories



Additional Series for Liquid Nitrogen Tank (Comparison between Standard Series and K Series)



New Functions of K Series

Digital Display Level Gauge

DLZ-300
Digital display of fluid level
Remote data transmission
function



Large diameter vent valve

Rapid relief of over pressure
Protection of safety valve



Pressure stabilizing valve

Stabilize fluid pressure during auto filling



Technical Parameters

Model	YDZ-5	YDZ-15	YDZ-30	YDZ-50	YDZ-100 YDZ-100K
Performance					
Volume of LN ₂ (L)	5	15	30	50	100
Static Evaporation (L/Day)	0.15	0.38	0.75	1	1.3
LN ₂ 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
Full Weight (kg)	19.1	35.3	56.6	95.0	157.0
Shipping Weight (kg)	28	34	47	63	98
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-200 YDZ-200K	YDZ-240K	YDZ-300 YDZ-300K	YDZ-500 YDZ-500K
Performance					
LN ₂ Capacity (L)	150	200	240	300	500
Static Evaporation (L/Day)	1.95	2.4	2.9	3.3	5.5
LN ₂ Output (L/Min)	6	8	8	8	10
Dimensions					
Height (mm)	1188	1265	1350	1459	1576
Outside Diameter (mm)	706	758	758	857	1008
Empty Weight (kg)	102	130	148	202	255
Full Weight (kg)	225	296	350	448	665
Shipping Weight (kg)	132	164	177	232	324
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, 6. Rupture disc burst pressure 0.47.				

* Static evaporation and static holding time are theoretical values. Actual evaporation and holding time are affected by usage, atmospheric conditions and manufacturing tolerances.

Low Temperature Transport Trolley

The unit can be used to preserve plasma and biomaterials during transportation. It is suitable for deep hypothermia operation and transportation of samples in hospitals, various biobanks and laboratories. High quality stainless steel in combination with the thermal insulation layer ensures the effectiveness and durability of the low temperature transfer trolley.



YDC-3000H

Ergonomic Design

Designed with multiple user applications, the touchscreen is angled to provide a clear view and is comfortable and practical for users of all heights.



Touch Screen
LCD, touch operation.

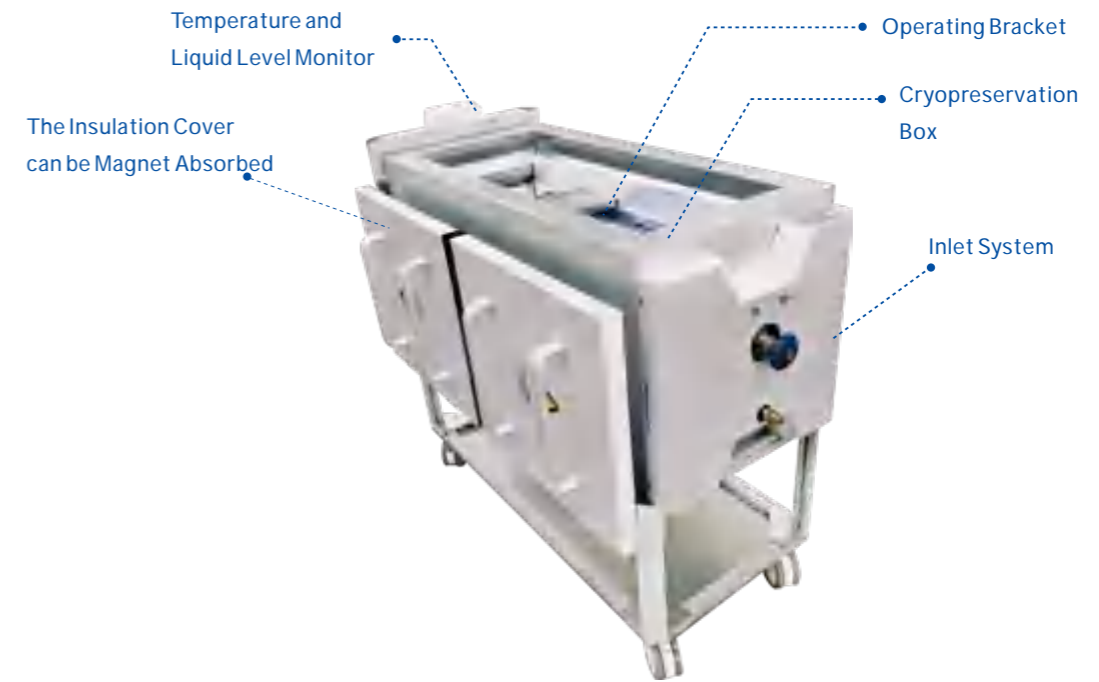


USB Data Export
It has its own USB interface and supports USB data export.



Real Time Monitoring

The instrument monitors the temperature and liquid level in real time and displays the expected remaining service time. Continuous working hours up to 24 hours.



User Friendly Design



Appearance Spray

The appearance of spray, not easily affected by stains.



Caster Design

Integrated design, universal caster at the bottom, easy to move.



Polymer Materials

The new type of environmentally-friendly polymer material is used inside the cover plate, which is more appealing, more environment-friendly and more advanced than the commonly used pearl foam and polyurethane materials.



The Insulation Cover can be Magnet Absorbed

The insulation cover can be magnet absorbed to the side of vehicle, which is convenient to extract, and the space reserved at the bottom can be used to store other tools.

Live Action



Specifications

Product Model	Temperature range (°C)	Dimensions (L * W * H mm)	Frozen Storage Space (L * W * H mm)	Liquid Nitrogen Under Tray (L)	Maximum Storage				
					5 * 5 Freezing Boxes (ea)	10 * 10 Freezing Boxes (ea)	50ml Blood Bag Boxes (ea)	200ml Blood Bag Boxes (ea)	2ml Cryopreservation Tube (ea)
YDC-3000H	-196-ambient temperature	1295*523*1095	900*335*163	33	65	30	105	50	3000

Product Portfolio

Cryo Freezer **-86°C ULT Freezer**

Twin Cool **Salvum** **Touch Screen Series**

DW-150W209
 DW-86L578S DW-86L578ST
 DW-86L578BP/729BP DW-86L578BPT/729BPT
 DW-86L579BP/729BP DW-86L579BPT/729BPT
 DW-86L419 DW-86L579 DW-86L729 DW-86L829

Chest **Water Cooling Freezer**

DW-86L338J DW-86L388J DW-86L490J DW-86L578J DW-86L728J DW-86L828J
 DW-86L486E DW-86L628E DW-86L100J DW-86W100J DW-86W420J DW-86W420JA
 DW-86L828W DW-86L959W

Mini ULT Freezer **-60°C Freezer** **-40°C Biomedical Freezer**

Upright **Chest** **Double Door**

DW-80W215 DW-60W138/258/388
 DW-40L92 DW-40L262 DW-40L278 DW-40L568J DW-40W100 DW-40W255 DW-40W380 DW-40L348 DW-40L508

-30°C Biomedical Freezer **-25°C Biomedical Freezer** **Combined Refrigerator and Freezer**

DW-30L420F DW-30L278 DW-30L508 DW-30L818BP DW-30L818 DW-30L1280F
 DW-25L92 DW-25L262
 HYCD-282 HYCD-282A HYCD-469 HYCD-469A

Pharmacy Refrigerator

New Generation **RFID Refrigerator**

HYC-1099 HYC-1099T HYC-1099F HYC-1099TF HYC-509 HYC-509T HYC-509F HYC-509TF
 HYC-390R HYC-509R

Pharmacy Refrigerator **Blood/Fluid Warming Cabinet**

Under-counter Pharmacy Refrigerator

HYC-290 HYC-310 HYC-390 HYC-390F HYC-410 HYC-610 HYC-940 HYC-940F HYC-1378 HYC-639
 HYC-68 HYC-68A HYC-118 HYC-118A
 HYR-111

Laboratory Refrigerator **Spark Free Freezer/Refrigerator** **Smart Vaccine Refrigerator** **Vaccine & Icepack Freezer** **Solar Direct Drive Combined Refrigerator/Freezer**

HLR-310F
 DW25L92SF DW-30L278SF/FL HLR-118SF/FL HLR-310SF/FL
 HYC-361 HYC-61
 HBD-86 HBD-116 HBD-286
 HTCD-160 HTCD-90

Product Portfolio

Solar Direct Drive Vaccine Refrigerator **Solar Direct Drive Freezer** **Ice-lined Refrigerator** **RTMD**

HTC-40 HTC-110/112 HTC-120 HTC-240
 HTD-40
 HBC-120 HBC-240 HBCD-90 HBC-80 HBC-150 HBC-260

Blood Bank Refrigerator

New Generation **baskets**

HXC-429TR HXC-629TR HXC-1369TR HXC-149R HXC-429R HXC-629R HXC-629RB HXC-629ZZ HXC-106 HXC-149 HXC-149T HXC-149T (DOUBLE DOOR) HXC-429 HXC-629 HXC-629B HXC-1369 HXC-429T HXC-629T HXC-629TB HXC-1369T HXC-158 HXC-158B

Plasma Freezer **Plasma Apheresis System** **Plasma Blast Freezer** **Transport Cooler**

Active Cooling

DW-30L818TR DW-30L1280TR
 XJ-III
 XSD-24FL
 HZY-8Z/8ZA HZY-15Z/15ZA HZY-40Z

Transport Cooler **Laminar Flow Cabinet**

Passive Cooling **Portable Transport Cooler** **Medical Transport Cooler** **Intelligent Control Cold Chain Transport Cooler** **Vaccine Transport Cooler**

HZY-5B HZY-35B ALG50 BCD60 FS-12LS/18LS/35LS BW25-8A/12A/36A/64A BW50-12A/36A QBLL0606
 HCB-900V HCB-1600H HCB-1300V

Biological Safety Cabinet

Classical Series **New Generation** **Smart Series** **Type B2**

HR30-IIA2 HR40-IIA2 HR900-IIA2 HR1200-IIA2-D HR1200-IIA2-S HR1200-IIA2 HR1500-IIA2
 HR1200-IIA2-X HR1500-IIA2-X HR1800-IIA2-X
 HR1200-IIA2-N HR1800-IIA2-N HR40-IB2

Liquid Nitrogen Container **CO₂ Incubator** **Constant Climate Standard Incubator** **Constant Climate Dry Chamber** **Desktop High-speed Refrigerated Centrifuge**

Low Temperature Transport Trolley **Mini-centrifuge**

YDC-3000H HCP-80/168/258 HZP-168 HFP-80 HFS-160 HZS-60
 LX-165T2R LX-120T2Z LX-80T2Z LX-50T2Z

High-pressure Steam Sterilizer **Constant Climate Chamber** **Consumables** **Walk-in Cold Room**

HLRM-80
 HHS-256 HHS-506 HHS-756