

## Temp. Humidity chamber Mold incubator

-precision temperature humidity control  
perfect environment simulation

WS series

WS-150 WS-150MJ

WS-250 WS-250MJ

WS-400 WS-400MJ





# Temp. Humidity chamber/ Mold incubator **3 years warranty**

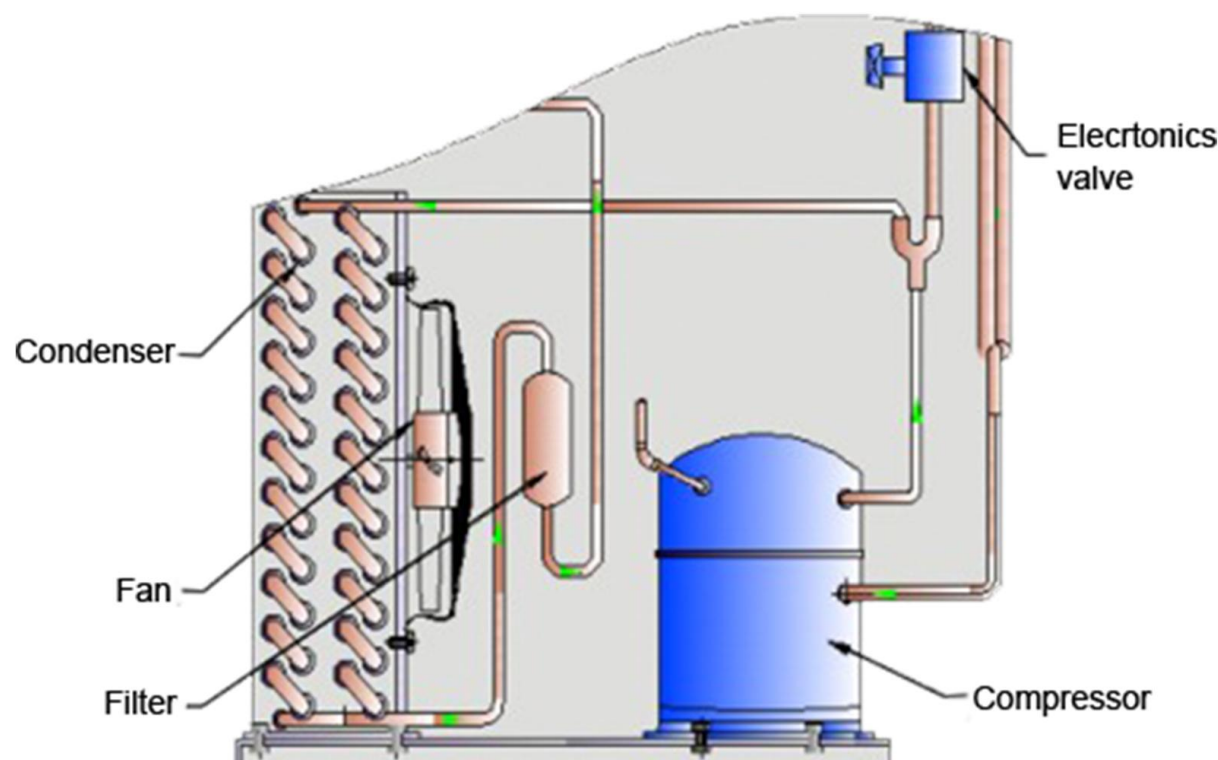
Perfect products from KENTON--- Human engineering design, high-precision micro-computer control temperature humidity control, best components, as well as advanced manufacturing technology of Europe and United States, ensure your successful experiment.

## Temp. Humidity chamber/ Mold incubator

1. Widely used in scientific research, materials science, cosmetics, pharmaceutical, food, tobacco microbial, chemical, electronics and other fields.
2. WS temperature humidity chamber/ mold incubator can provide a stable temperature and humidity environment, wide temperature range, with both cooling and heating, humidification functions, simulate various climatic conditions, especially used in samples tests、 shelf life tests、 long-term experiments and cultivation of plants、 seeds and microorganisms.
3. Temperature range is wider to 90°C, which is convenient for high temperature disinfection of the inner after each experiment to avoid cross infection of bacterial species.
4. According to Chinese pharmacopoeia requirements, AS3100 of Australia, FDA of the United States EN, ICH and other related standards. For long-term acceleration experiments and forced degradation experiments.
5. IQ, OQ, PQ and other related certification services.
6. CE certification. Three-year warranty period.

## ALLCOLD Refrigeration technology

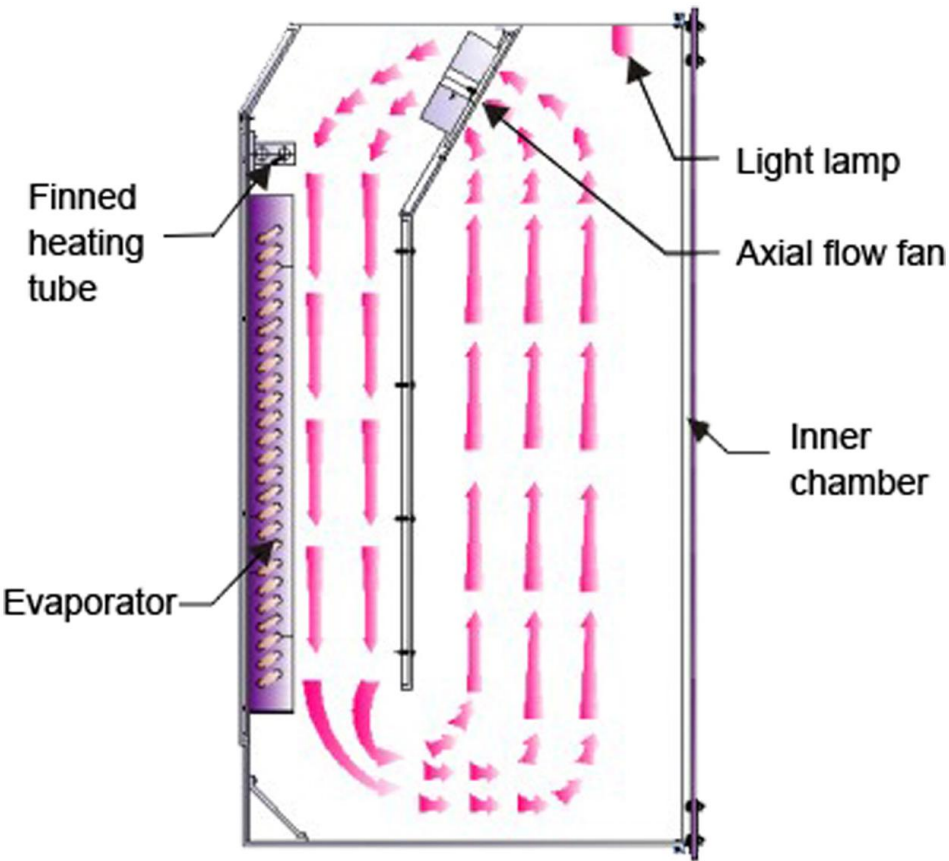
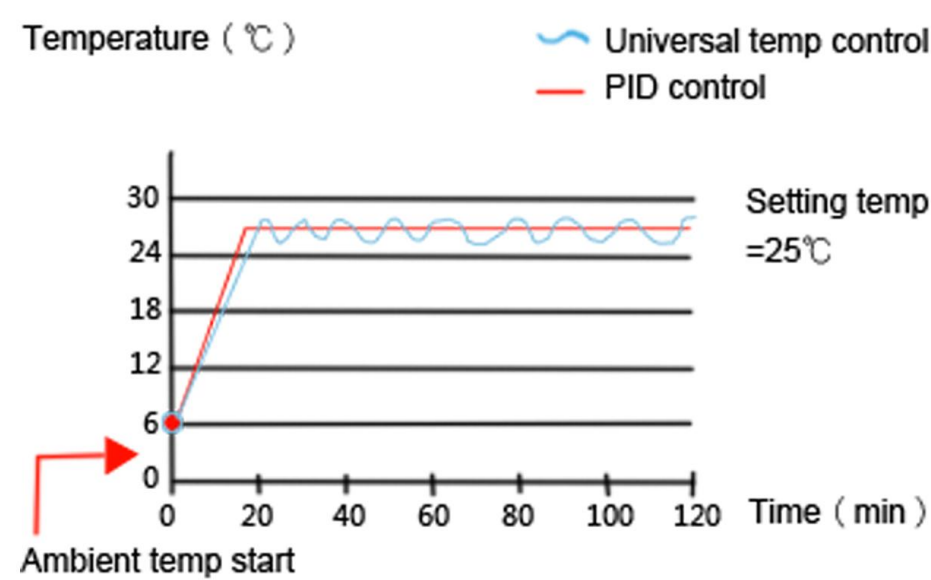
1. World famous compressor: balanced refrigeration technology, auto defrost, multiple security system long time running, environmental protection, high efficiency and energy saving.
2. Auto-defrost function: original rapid heat pump defrost technology, for continuous operation effectively prevent frost because of continuous operation of evaporator.
3. Environmental friendly refrigerant. For cleaner world, better work condition, to save energy and reduce the cost.





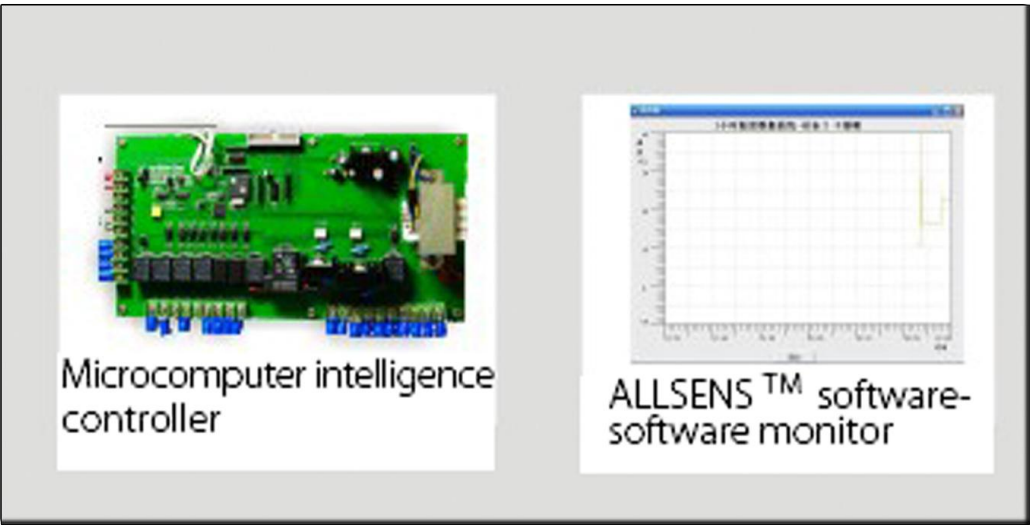
# ALLFLOW perfect air current cycling

- 1.ALLFLOW air current cycling: perfect forced convection, maximum samples number of working room minimum temperature recovery time after the opening, world famous axial fan, perfect air current design ensure an ideal result of samples culture.
- 2.ALLFLOW air current cycling: keep temperature continuous and stable, keep humidity continuous and stable, ensure perfect sample culture environment.



# ALLSENS programmable PID control

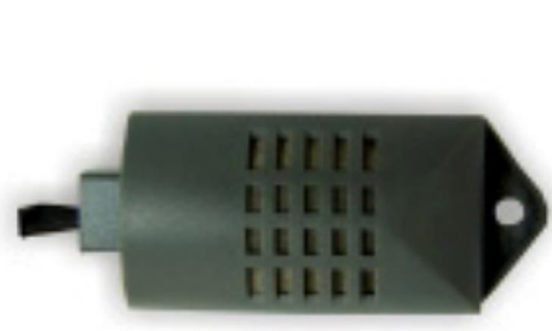
- 1.Programmable segmented control temperature humidity LCD display touch screen, comprehensive display of customer required status: temperature measurement value, temperature set value, alarm, cooling, heating humidification, lighting (sterilization) timing switch operation.
- 2.Adaptive PID controller precisely, control the temperature and humidity, prevent temperature soaring keep working room temperature stable and uniformity.
- 3.Multi-function memory menu, and can be connected to the computer through the standard RS485 interface for real-time monitoring.
- 4.Wide time setting: 0~999 hours, 0~9999 minutes, the program can be automatically looped.
- 5.Mold incubator has the function of ultraviolet sterilization lamp, so that the inner is sterile.



Programmable touch screen

## Excellent Sensor

- 1.High-precision sensor PT100, short response time, and low self-heating temperature.
- 2.Humidity sensor, aerospace material, no maintenance, precision humidity control level.



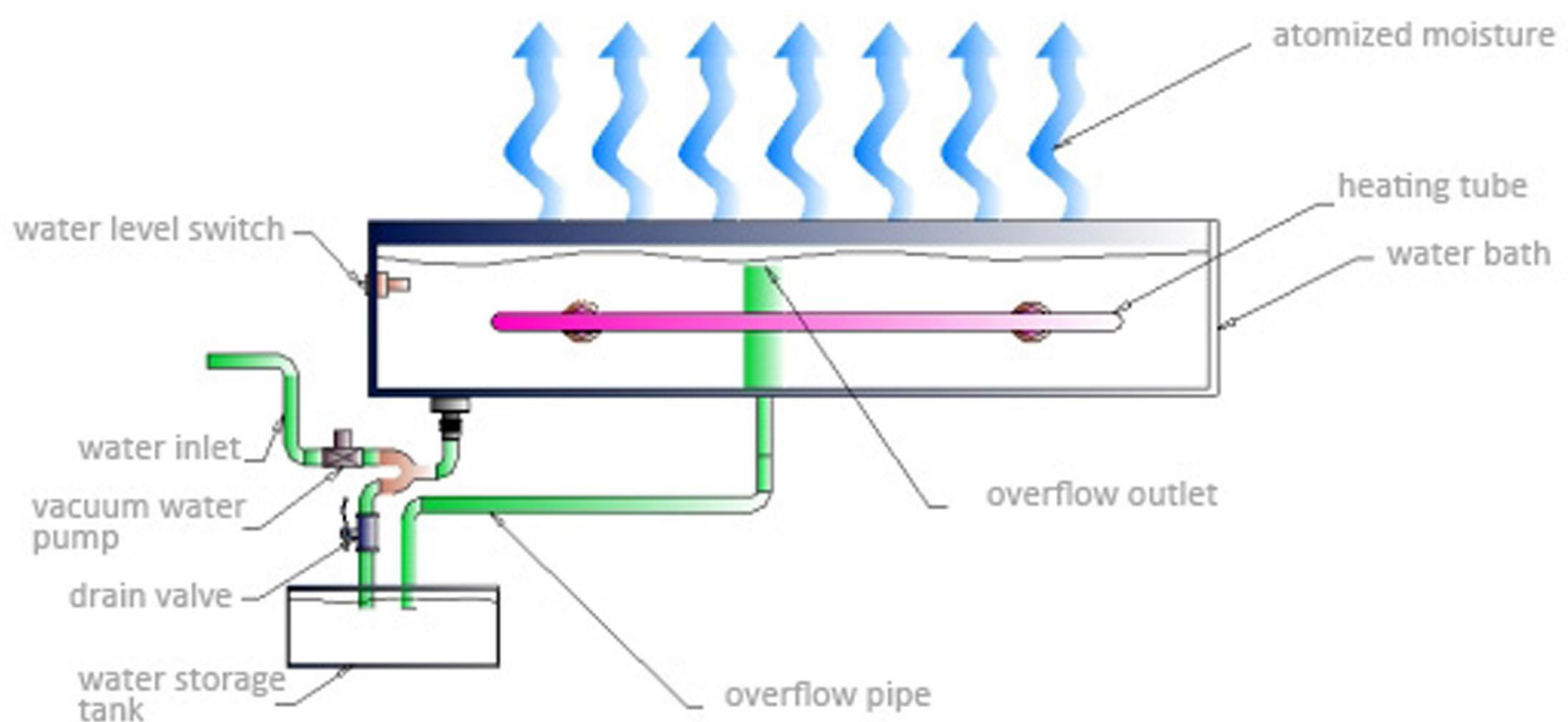
precise humidity sensor



⊕ PT 100 temperature sensor

## ALLGENT Humidification System

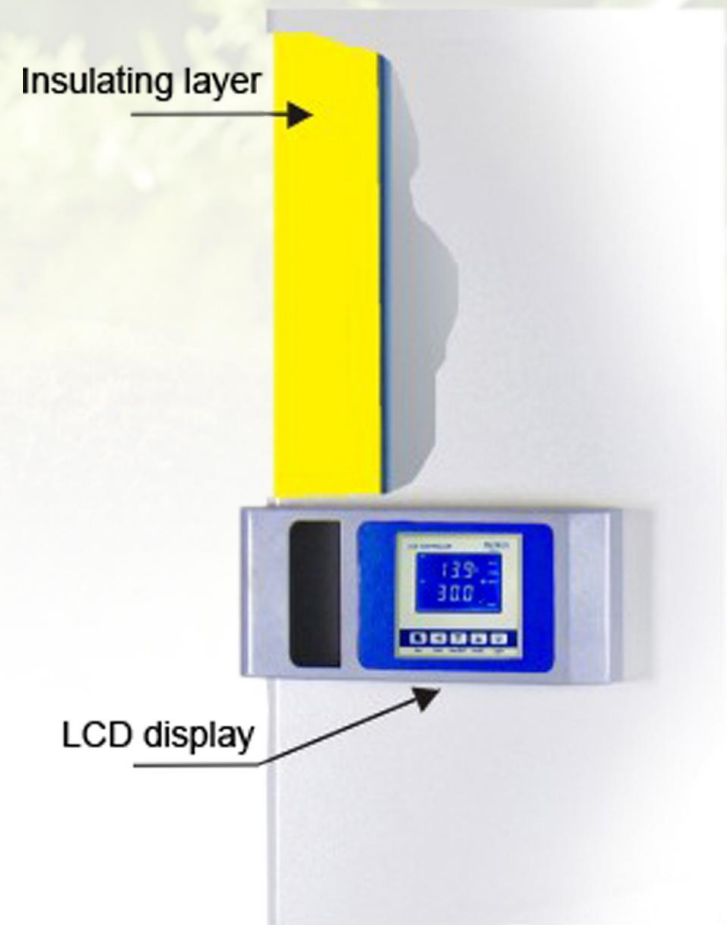
- 1.Built-in humidification system design, get rid of the traditional external humidifier uneven and unstable also can meet the high humidity setting.
- 2.Automatic water intake, automatic water level control, ensure the precision of humidity control.
- 3.Stainless steel SUS304 internal surface and water tank, ensure the quality of atomization and uses persistent.





## Efficient Isolation Design

- 1.Design of double-layer isolation, reduce power consumption, environmental protection concept energy conservation.
- 2.Internal isolated door design, easy observation of working room samples, keep temperature stability of working room.



## Ergonomic Design

- 1.Laboratory of classical design, arc-shaped design, for highest operational comfort.
- 2.Integrated design that contains door handle and LCD screen, ergonomic structure, comfortable viewing angle, convenient to open the outside door and operate interface.
- 3.Interval and number of mesh shelf can be adjusted according to customer requirements. Maximum capacity to meet customer needs.
- 4.Double door design, easy observation samples, keep temperature stability, with bell-type lighting system.

## Easy to Clean

- 1.Internal surface is smooth and less weld, easy cleaning and maintenance.
- 2.Pull multilayer shelf design, less metal accessories, easy to clean.
- 3.Drainage design of chamber humidification collecting tank. User can discharge water as required to avoid bacteria.

## Secure and Efficient Protection Concept

- 1.Multiple over temperature protection function, sound and light alarm.
- 2.The design of the temperature protection device complies with the German DIN 12880 Class 3.1 standard, and the electrical safety complies with the international IEC 61010-1; American UL 61010-1; European Union EN 61010-1 standard

# Optional Product Accessories

1. Portable printer

2.Full function LCD touch screen controller

3. Data memory with USB

4. Air interface
5. Power supply interface

6. Test hole

7.ALLSENS software

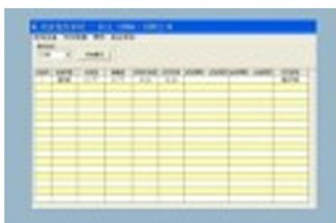
8.Power off with the door open



Data memory with USB



Test hole



ALLSENS Software



Printer

## Convenient maintenance

- 1.Liquid crystal micro-computer controller with diagnostic function. Display operating parameters including historical record, temperature and humidity data.

2.Maintaining of controlling system and cooling system, electrical control system mounted on the incubator bottom.









3.Electrical control components and working room are installed separately. Especially refrigerating battery and electrical control output parts, which are installed in incubator bottom, easy to maintenance.





WS temp. humidity chamber main configuration				
NO	Name	Spec	quantity	
1	Main chamber	WS	1	
2	LCD touch screen controller	3000	1	
3	High precision sensor	PT-100	1	
4	SENSIRION humidity sensor		1	
5	Circulating fan	BT150	1	WS-400 2
6	Compressor	FKA	1	
7	St.steel heating tube	0.4-0.7KW	2	
8	SUS304 St.steel inner	WS	1	
9	485 interface	9 hole	1	
10	Protective tube	15A	1	
11	Power line 3×0.75mm <sup>2</sup>	2.5m 15A	1	
12	Environmentally friendly refrigerant			
13	Evaporator		1	
14	Condenser		1	
15	Trundle	3 inch	4	
16	Solenoid valve	SH1028	1	
17	Water solenoid valve	G	1	
18	Circuit breakers	DZ47	1	
19	Liquid level switch	FBS	1	

# Biochemical-humidity-climate chamber comparison

	SH/SH-MJ	WS/WS-MJ	LC	RG	SPX SPX-MJ	LRH LRH-MJ	GZP	PQH
<b>Controller</b>								
Programmable touch screen control	•	•	•	•				
PID LCD	•	•	•	•	•	•	•	•
<b>Inner material</b>								
SUS304 St. steel	•	•	•	•		•	•	•
201 St. steel					•			
<b>Motor fan</b>								
High temperature resistant bearing	•	•	•	•				
<b>Heat tube</b>								
St. steel	•	•	•	•	•	•	•	•
<b>232 computer port</b>	•	•	•	•				
<b>Networking control</b>	•	•	•	•				
<b>ALLCOLD balanced refrigeration</b>	•	•	•	•	•	•	•	•
<b>ALLFLOW circulation</b>	•	•	•	•	•	•	•	•
<b>ALLSENS</b>	•	•	•	•		•	•	•
<b>ALLIGENT humidification</b>		•		•		•		•
<b>Pro-Bright light system</b>			•	•			•	•
<b>Save energy insulation</b>	•	•	•	•				
<b>UV function</b>	“MJ”•	“MJ”•			“MJ”•	“MJ”•		
<b>Refrigeration capacity control</b>	•	•	•	•				
<b>Brand accessories</b>								
Brand compressor	•	•	•	•	•	•	•	•
Environmentally friendly refrigerant	•	•	•	•	•	•	•	•
ST bi type thyristor	•	•	•	•				
Philip chip	•	•	•	•				
Taiwan opitcal coupler	•	•	•	•				
SENSIRION sensor	•	•	•	•				
<b>Auto defrost</b>	•	•	•	•	•	•	•	•
<b>Cut-off memory</b>	•	•	•	•	•	•	•	•
<b>Door seal material</b>	Silicone+magnetic				magnetic	Silicone+magnetic		
<b>insulation</b>	high density polyurethane				polyurethane			
<b>Temp.accuracy°C</b>	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1
<b>Temp.fluctuation</b>	±0.5%	±0.5%	±1%	±1%	±0.5%	±0.5%	±1-1.5%	±1-1.5%
<b>humidification</b>		•		•		•		•
<b>Humidity fluctuation</b>		±2%		±3%		±2%		±3%
<b>Light function</b>			•	•			•	•
<b>timer</b>	•	•	•	•	•	•	•	•
<b>Over-temperature alarm</b>	•	•	•	•	•	•	•	•
<b>warranty</b>	3 years				2 years			



# Kenton

Together with Researchers

**Manufacture of drying oven, lab incubator, climate chamber,  
laminar flow cabinet, biological safety cabinet(OEM,ODM)**

**KENTON APPARATUS LIMITED**

KENTON Apparatus Limited was found in 1999, production plant was set in Guangzhou, China. It is mainly engaged in production, sales and export of laboratory thermostatic equipment and biological scientific equipment, and has provided high-quality products and services for professional laboratories and scientific research institutions at domestic and abroad for many years. We rely on an international professional R&D team to keep the design and technology of products in step with the world and constantly seek breakthroughs. Since its establishment, the company has been focusing on thermostatic equipment products in related fields. Now it is a high-tech enterprise integrating science, industry and trade. Its business covers China, Southeast Asia, America, Europe, Australia and other countries. At the same time, based on the business philosophy of "walking with scientific researchers", and taking advantage of the company's geographical advantages, the company has carried out extensive communication and exchange with scientific researchers in different regions for many years, and carried out long-term follow-up services to users, constantly improving the function and quality of products, so that products can better meet the requirements of users.

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