

## KD/KL/KG Series Drug stability test chamber

Simulating drug environment test

KD-150 KL-150 KG-150

KD-250 KL-250 KG-250

KD-400 KL-400 KG-400



KD-150

KD-250



# Gather all the essence of Kenton technology, Together with researchers

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

KD Drug stability test chamber

KL Strong illumination stability test chamber

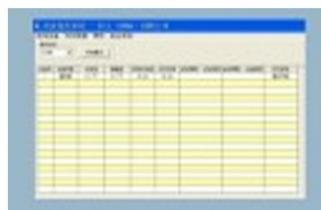
KG Comprehensive drug stability test chamber

## Technical Parameters

Product Model	KD			KL			KG							
	KD-150	KD-250	KD-400	KL-150	KL-250	KL-400	KG-150	KG-250	KG-400					
Convection Mode	Forced Convection													
Control System	Programmable microcomputer PID intelligent touch screen automatic control system													
Temp. Range	0~65°C			10~65°C (with lighting)/0~60°C (without lighting)										
Temp. Accuracy	0.1°C													
Temp. Fluctuation (10~40°C)	±0.5°C													
Temp. Uniformity (10~40°C)	±1°C													
Humidity Range	Humidity Range: 40~95%RH, Humidity Fluctuation: ± 2%RH				Humidity Range: 40~95%RH, Humidity Fluctuation: ± 3%RH									
Illumination Range					0~6000LX (five stages adjustable)									
Working environment	Ambient temperature: 10~30°C, Humidity <70%													
Insulation materials	environmental protection type material													
External Dimensions (H×W×D)	1410×650 ×680	1730× 650×740	1700× 745×930	1410×650 ×680	1730× 650×740	1700× 745×930	1410× 650×680	1730× 650×740	1700× 745×930					
Internal Dimensions (H×W×D)	760×510× 390	1100× 510×450	1050× 600×640	760×510× 390	1100× 510×450	1050× 600×640	760×510 ×390	1100× 510×450	1050× 600×640					
Interior Volume(L)	150	250	400	150	250	400	150	250	400					
Interior steel materials	SUS304 stainless steel materials													
Power Consumption (W)	1080	1100	1350	1080	1100	1350	1080	1100	1350					
Power supply	AC220V/110V													
Net Weight(KG)	107	135	158	107	135	158	107.5	136	158.5					
Shipping Weight(KG)	132	162	186	132	162	186	133	162.5	188					
Shipping Dimensions (H×W×D)	1610×750 ×830	1930× 750×890	1900× 840× 1080	1610×750 ×830	1930× 750×890	1900× 840× 1080	1610× 750×830	1930× 750×890	1900×840 ×1080					

## Optional Product Accessories

1. Portable printer
2. USB interface data recorder
3. Gas interface, test hole
4. Power supply interface
5. ALLSENS programmable software
6. UV sterilization system
7. Chrome-plated or 304 stainless steel shelf



ALLSENS Software



Printer



USB recorder



Test hole

All technical data were tested under no-load conditions, ambient temperature 25°C, relative humidity 50% RH, voltage fluctuation  $\pm 10\%$ , set test temperature and humidity of 10°C / 40°C, and fully meet the requirements of DIN12880 standard.

KENTON may change the above technical indicators at any time, the appearance of the product will deviate due to photography or printing and other reasons, please understand and reserve the final right of interpretation.

## Meet international standards

Products standard: NSF 49; EN12469

Electrical safety standards: International IEC61010-1 US UL61010-1 EU EN61010-1

## KD/KL/KG

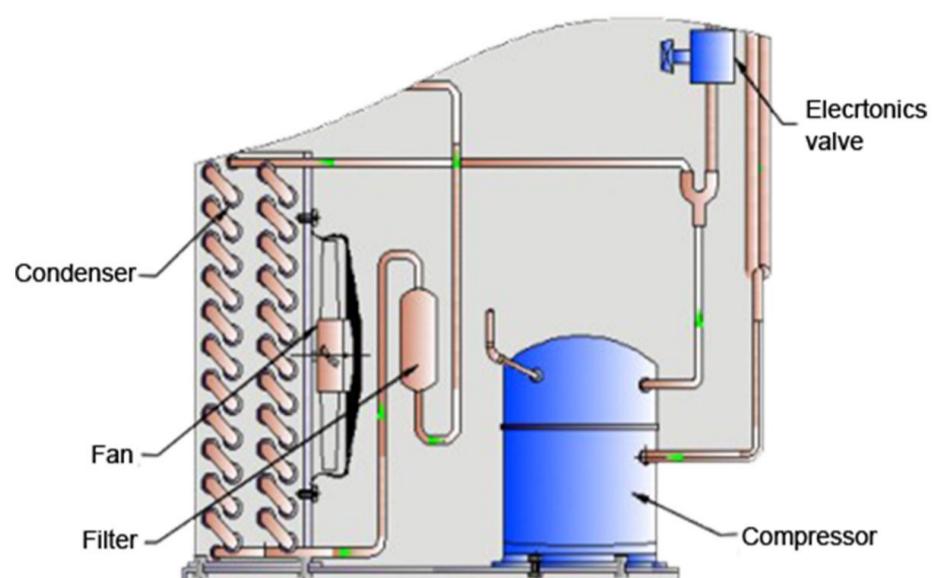
### Drug stability test chamber

**3-years warranty**

1. Apply to pharmaceutical companies to evaluation of drug failure, accelerated testing and long-term trials pharmaceutical GMP certification, ideal for pharmaceutical stability testing equipment.
2. Have test hole and cap that made of silicone material in the right of the chamber, easy for product test.
3. 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, the stability of the test drugs in the comprehensive environment such as temperature humidity and light within the specified time is used to meet the multi-stage step programming control.
4. Balanced dual-mode control heating and cooling, effectively reduce temperature fluctuations programmable segment control temperature and humidity LCD display touch screen, standard RS485 interface can be connected with multiple devices, real-time monitoring, supporting ALLSENS software can be remotely controlled.
5. SUS304 Stainless steel liner and KD, KG series built-in humidification water tank design, the built-in humidification system to get rid of the traditional external atomization humidifier humidification uneven unstable disadvantages, at the same time can meet the high humidity setting.
6. KL and KG inner are equipped with a specially developed Pro-Bright illumination system to simulate the natural illumination. The system effectively compensates for the heat generated by the illumination through a precise control system to ensure that the temperature is constant.
7. IQ, OQ, PQ and other related certification services.
8. CE certification. 3 years warranty period.

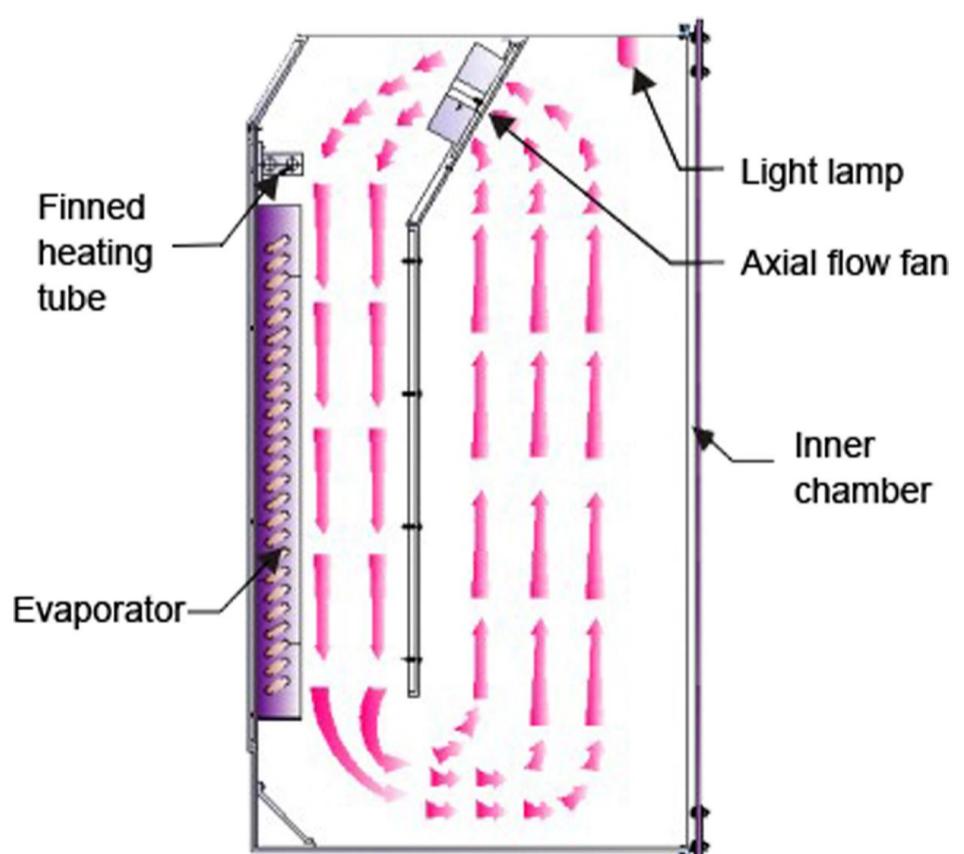
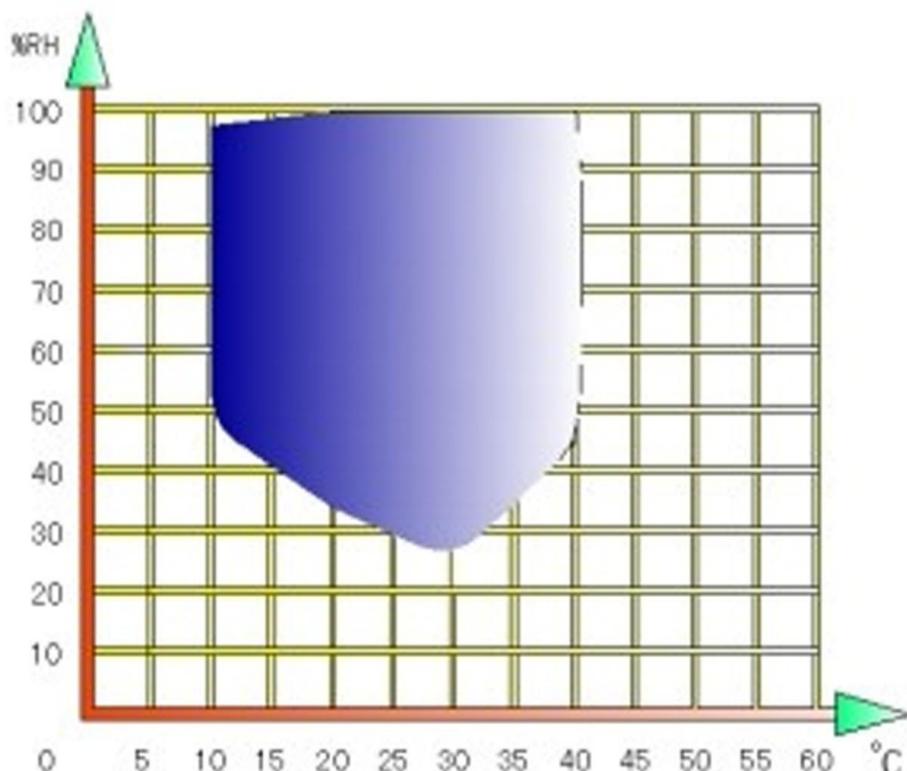
## ALLCOLD Refrigeration Technology

1. The international popular ALLCOLD balanced refrigeration, set of automatic defrosting, multi-layer safety protection, to meet the needs of long-time operation, equipped with brand compressor, advocate environmental protection, high efficiency, energy saving;
2. Automatic frost function: balanced refrigeration scheme, based on the original rapid heat pump frost technology, customers can perform continuous and uninterrupted use; effectively solve the frost problem caused by continuous operation of evaporator;
3. Environmental refrigerant, for cleaner world, save energy, reduce the cost.



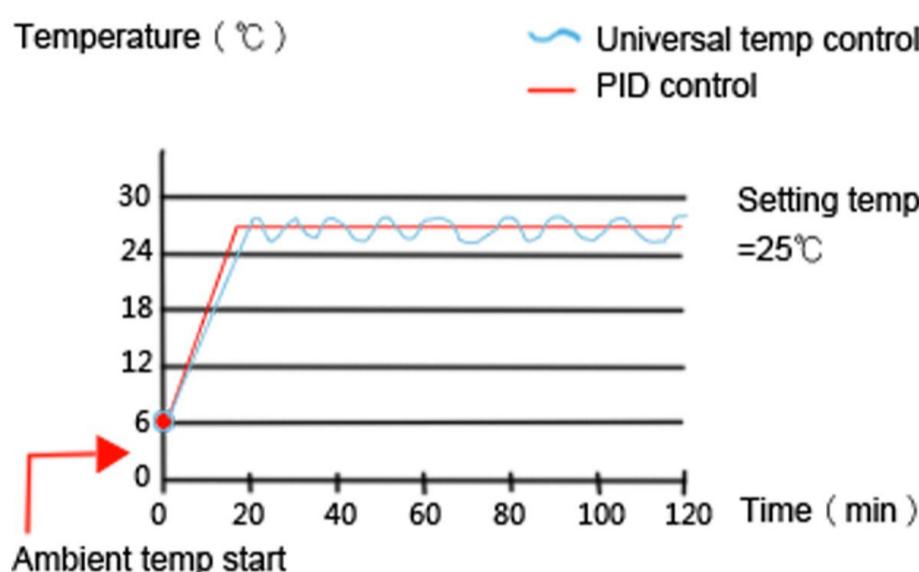
## ALLFLOW Air Current Cycling

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 segment control temperature and humidity liquid crystal display touch screen, Chinese and English switch display, all parameters display at a glance, fully display the customer required state display: temperature, humidity, cycle, number of segments, running time, running stop;
2. Adaptive PID controller precisely controls the temperature and humidity, prevent temperature soaring keep working room temperature stable and uniformity.
3. Memory menu, at the same time through the standard RS485 interface can be connected with multiple devices at the same time, real-time monitoring;
4. Remote control of computer software, professional operation ALLSENSTM software (optional)



Programmable touch screen controller

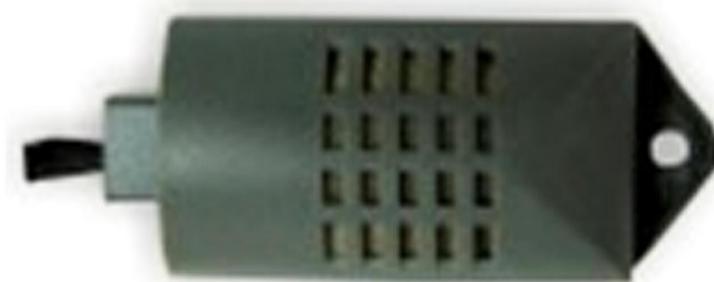
## Qualified Sensor

PT100 sensor, short response time, low self-heating temperature.

Aerospace material humidity sensor, no maintenance, precision humidity control level.



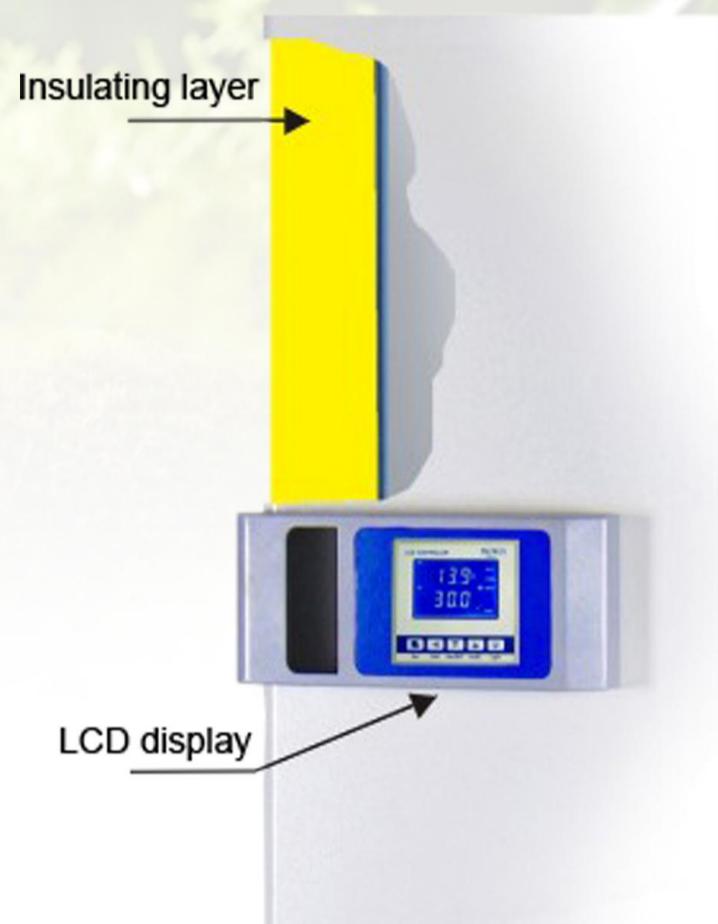
④ PT 100 temperature sensor



precise humidity sensor

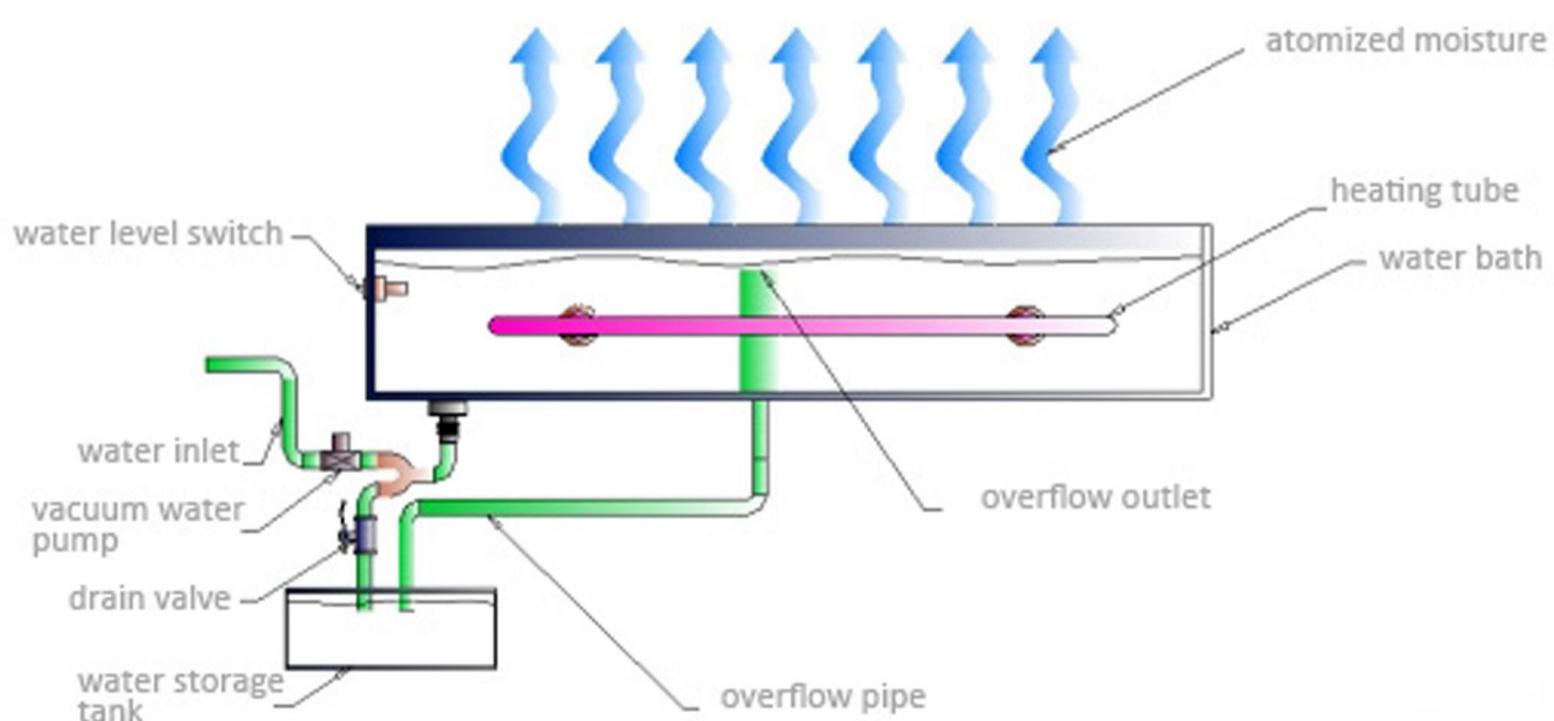
## Efficient Isolation Design

- 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.



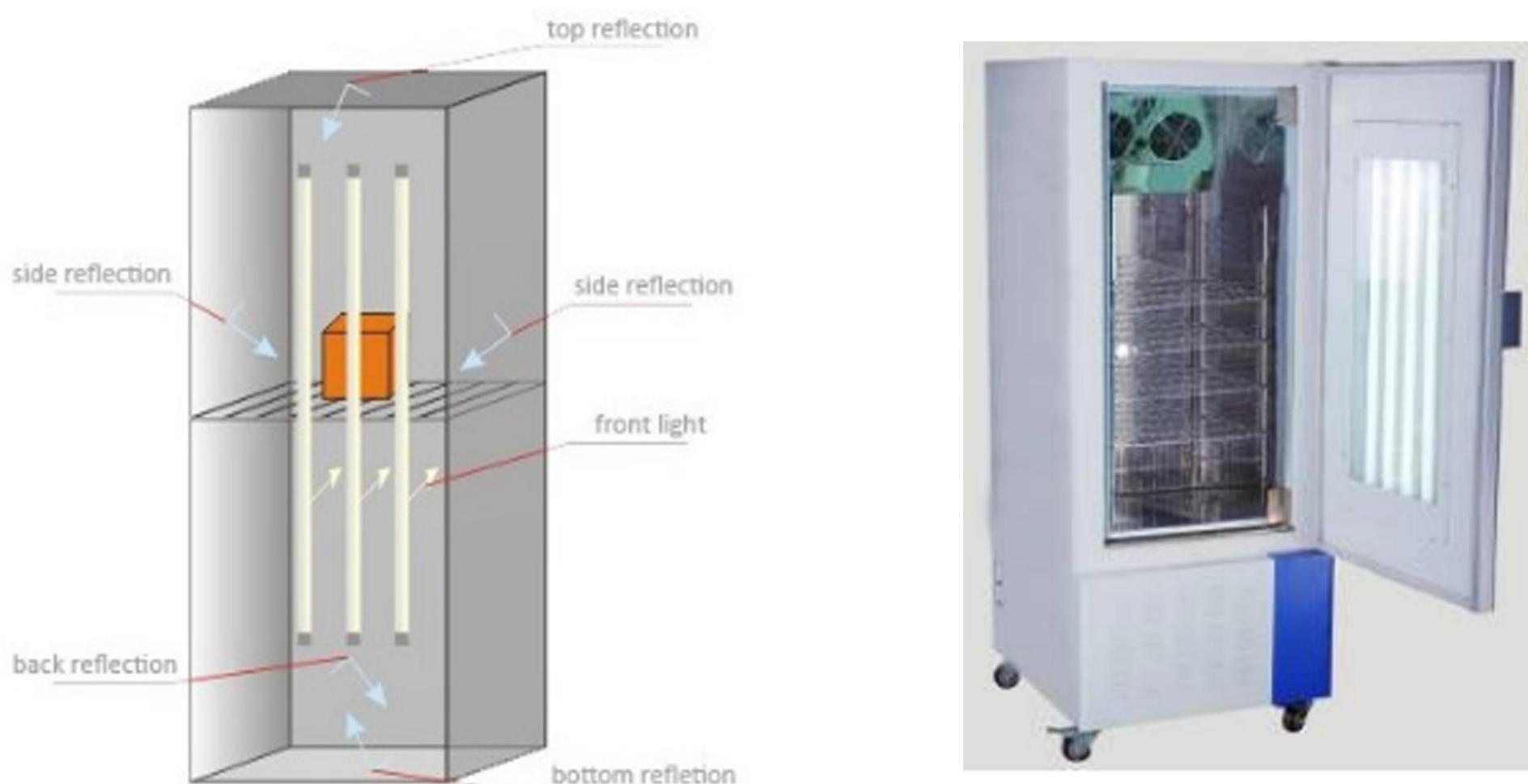
## ALLGENT Humidification System (only for the KD and KG)

- 1.Original design of humidification system, prevent disadvantages (non uniformity, instability) of traditional atomizer design.
- 2.Automatic water intake, automatic water level control, ensure the precision of humidity control.
- 3.Stainless steel SUS304 interior and water tank, ensure the quality of atomization



## Pro-Bright™ Professional Lighting systems (only for KL and KG)

1. Equipped with specially design Pro-Bright™ light system in the chamber that can simulate daytime and nighttime natural light, to meet specific lighting conditions.
2. Effective compensation of the heat generated by the light, through a sophisticated control system to ensure that the temperature is constant.
3. Three-dimensional light source, evenly distributed lighting, use the stainless steel mirror as reflective material to make the lighting better, at the same time lighting degree can be adjust.
4. Better lighting systems, tube and the chamber is effectively insulated by double glazing and a ventilation hole cooling.
5. With ALLIGENT humidification system (only for the ALLIGENT-KG Comprehensive drug stability test chamber), provide the product a variety of climate simulations.



## Ergonomic Design

1. Laboratory of classical color design, arc-shaped design, for highest operational comfort.
2. Integrated design that contains original outside 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. Comfortable vertical structure, maximize work chamber, working room in the upper convenient to take.
5. Double door design, easy observation samples, keep temperature stability.

## Modern manufacturing processes

Sheet metal parts use laser cutting and CNC bending technology. Cold-rolled sheets use three line of acidification anti-rust technology. Incubator surface use workmanship of spraying plastics.



## Easy to clean

1. Internal surface is smooth and less weld, easy cleaning and maintenance.
2. Pull multi layer 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.

## 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.



## Secure and Efficient Protection Concept

1. Multiple over temperature protection function, sound and light alarm.
2. All electronic components are UL certified.
3. All over temperature protection devices meet Germany standard DIN standard D12880 Class 3.1.

## 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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