

# Air-cooled Light & Weather Fastness Tester

**Air-cooled Xenon Lamp Weatherproof Test Chamber:** Utilizing a xenon lamp as the light source, this chamber is designed for conducting aging tests on specimens. The specimens are exposed to xenon arc lamp light and thermal radiation to evaluate their resistance to high-temperature light sources, assessing both light and weather resistance. This chamber finds applications in the testing of paints and coatings, rubber, plastics, pigments, waterproof materials, adhesives, fabrics, and more. chemicals, building materials, medical, aerospace and other products quality testing.



## Features:

**Superior performance, advanced light source** The instrument uses a powerful 2.5 kW long arc xenon lamp that faithfully mimics the solar spectrum. Cutting-edge wireless transmission and detection technology, using light energy conversion to provide energy directly, without external power supply. Optical filters are made of high-quality fluorine material.

**Superior energy efficiency and longer test durability** High transmittance filters with over 95% light transmittance are an environmentally friendly solution that reduces energy consumption. 1000 hours of continuous testing.

**Intelligent control and real-time monitoring:** Digital irradiance settings, real-time monitoring and automatic closed-loop adjustment with a choice of control bands (340 nm, 420 nm, 300-400 nm and 300-800 nm). A standard black panel thermometer, synchronised RF transmission for accurate sample status and an intelligent multi-stage ultrasonic humidification control system ensure stable and precise test conditions.

**Versatile and easy to use:** Multiple operating modes (spray, alternating, rotating and rotating) simulate real climatic conditions. All sample racks have a timer function to facilitate testing of different samples, reduce operating costs and provide power failure protection.

**User-friendly interface for easy control:**

Equipped with a large 10.4-inch colour touch screen to minimise membrane panel failures. Provides various test monitoring modes (animation, digital, curve) for easy and clear control.

## Standards:

Meets the following criteria but is not limited to  
GB/T 8427 ISO 105 B02 AATCC 16.3

## Specification:

Blackboard Standard temperature control range: 50~130°C,  
resolution 0.1°C.

Blackboard panel temperature control range: 45~125°C,  
resolution 0.1°C

Testing chamber temperature control range: 30~85°C,  
resolution 0.1°C.

Testing chamber humidity control range: 10~95%RH  
(Bright cycle≤70%RH, Dark cycle≤95%RH), resolution 0.1%RH.

Time control of test range: 0~9999hours59min; precision±1min.

Control of irradiance range: 0.8~2.20W/m<sup>2</sup> @420nm,  
±0.02W/m<sup>2</sup> @420nm; (@340nm, @300-400nm,  
@300-800nm) digital setting, automatic compensation.

0.2~0.8W/m<sup>2</sup> @340nm ±0.01W/m<sup>2</sup> @340nm;

30~80 W/m<sup>2</sup> @300-400nm ±2W/m<sup>2</sup> @300-400nm;

400~1100 W/m<sup>2</sup> @300-800nm ±10W/m<sup>2</sup> @300-800nm;

Light source: Rated power of xenon arc lamp: 4.5KW.

Specimen: a. Rotation speed of specimen holder: adjustable  
between 1-7rpm.

b. Dimensions and amount of specimens to be mounted and clamped:  
35 pieces of 145×75mm sample plates or 46 pieces of 145×45mm  
sample plates.

c. Individual timing for each specimen gripper≤10000h.

d. Specimen thickness≤4mm.

Power source: 3-phase 4-wire system. The ground wire needs to be  
external.

External dimensions: 1260×850×1880mm(L×W×H)

Weight: 400kg

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# Constant Temperature And Humidity Chamber

Constant temperature and humidity test chamber is aviation, automotive, home appliances, scientific research and other fields of essential test equipment for testing and determining electrical, electronic and other products and materials for high temperature, low temperature, alternating humidity and heat or constant test of the temperature environment after the change of parameters and performance.



## Specification:

Effective Volume: 225L  
Inner Box Size: W(Wide)600mm\*H(High)750mm\*D(Deep)500mm  
Outer Box Size: W(Wide)850mm\*H(High)1850mm\*D(Deep)1600mm  
Ambient Temperature: 5~30°C  
Ambient Humidity: 20%~98%RH  
Sample Weight: 20kg (Customizable)  
Temperature Range: -20°C~+150°C(Fully controllable, adjustable control accuracy  $\pm 0.1^\circ\text{C}$ )  
Temperature Overshoot :  $\leq \pm 2^\circ\text{C}$  (Within 100°C)  
Temperature Stability:  $\leq \pm 0.5^\circ\text{C}$   
Temperature Deviation:  $\leq \pm 2^\circ\text{C}$   
Temperature Uniformity:  $\leq \pm 2^\circ\text{C}$   
Heating rate: 3~5°C/min; Cooling rate: 1°C/min (Average for the whole journey)  
Humidity Range: 20%RH~98%RH(Fully controllable, adjustable control accuracy  $\pm 0.1\text{RH}\%$ )  
Humidity Fluctuation Degree:  $\leq \pm 2.0\%$  RH (The magnitude of humidity change at any point in the test chamber within the specified time after humidity stabilization)  
Humidity Uniformity:  $\leq \pm 2.0\%$  RH  
Relative Humidity Deviation: At  $> 75\%$  RH,  $\leq \pm 2\sim 3\%$  RH;  $\leq 75\%$  RH,  $\leq \pm 5\%$ ; (After humidity stabilization, the difference between the highest humidity, lowest humidity and the nominal humidity in any time)  
Equipment Weight: 350KG  
Maximum Power:  $\leq 7\text{KW}$  (AC 220V/380V $\pm 10\%$ , 50Hz)

## Implementation and Acceptance Criteria:

Manufacturing Standards:

GB/T11158-2008 Technical Conditions Of High-Temperature Test Chamber

GB/T10589-2008 Low Temperature Test Chamber Technical Conditions

GB/T10592-2008 High And Low Temperature Test Chamber Technical Conditions

Calibration Standards:

GB/T 5170.2-2008 Temperature Test Equipment

## Features:

Intelligent control of temperature and humidity, safe and reliable:  
The central control system can intelligently identify the environmental conditions outside the test chamber, the test conditions inside the test chamber, and the current temperature inside the test chamber, and automatically turn on or off the corresponding work unit to achieve precise control of various temperatures and humidity. Multi-layer password protection can be set to prevent unauthorised use and change of internal parameters by non-operators.

Durable, long service life:

Adopting high-quality copper pipe nitrogen protection welding method, so that the copper pipe internal smooth without oxidation, to avoid the copper pipe wall oxidation impurities into the refrigeration system damage to the compressor. The refrigeration system piping adopts the method of adding vibration-proof hose and C-type elbow to avoid the rupture of copper pipe due to vibration and temperature change, which leads to the leakage of refrigerant and thus affects the overall performance of the system.

Humanised design, user-friendly:

Fault display 16 groups of fault alarm output, Chinese and English, humanised publicity of fault causes and troubleshooting methods. Regular pop-up list of routine and periodic maintenance items. Through the programme setting advance output on, refrigerant flow control function, control compressor delay, water shortage advance, automatic light switch off and many other

Precise control of temperature and humidity uniformity and low noise:  
Adopting shell-and-tube water-cooled high-efficiency condenser and adding wave-type sound-absorbing sponges around the refrigeration unit to achieve the effect of noise reduction. Adopting multi-channel airflow balanced sink pressure circulation air supply in the air-conditioning box. Effectively prevent moisture condensation, can better control temperature and humidity uniformity, reduce fan noise. The controller output signal regulates the fan speed through frequency conversion control, so as to control the fluctuation and uniformity of temperature and humidity in the box in a better, more accurate and more stable way.

Remote monitoring, data collection is fast and convenient:

Built-in recording programme, the memory ROM in the controller can store 350 days of 24-hour operation data. Unaffected by internal battery failure and data loss. External connection supports R232, LAN, GPRS and other communication methods, up to 254 devices can be connected, communication speed: up to 115,200bps (optional)

humanised controls, no need for extra time relay. With power failure memory auto-recovery function, you can set the choice to continue to complete the set test or start a new test. The power failure time and number of times will automatically generate a report record storage, convenient for staff to investigate and evaluate.

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# Electric Industrial Laboratory Oven

The Electric Industrial Laboratory Oven is used for various baking processes, aging tests of electronic components, and stress relief at high temperatures. Industrial ovens are used in a wide range of applications to dry a variety of industrial materials. resistance. This chamber finds applications in the testing of paints and coatings, rubber, plastics, pigments, waterproof materials, adhesives, fabrics, and more. chemicals, building materials, medical, aerospace and other products quality testing.



## Features:

### Selected materials for durability

The exterior is constructed of SECC steel plate with a high-temperature baked enamel finish. This provides a sturdy exterior construction. The interior is constructed from SUS stainless steel plate for excellent corrosion resistance. This ensures a hygienic and stable internal environment.

### Precise temperature control for a wide range of needs

Fully automatic combined PID and SSR temperature control system. This ensures accurate and stable temperature control. The controller has an accuracy of  $\pm 0.5^{\circ}\text{C}$ . It is suitable for applications with stringent temperature requirements. This industrial electric oven features high temperature resistant silicone compression seals. As a result, it maintains its internal sealing integrity even in high temperature environments. This prevents interference from the external environment and improves process stability.

### Wide Temperature Range and Uniform Temperature Distribution.

It uses a new high temperature resistant long shaft motor and turbo fan. As a result, it enables forced horizontal air circulation, which ensures uniform temperature distribution inside the chamber. The temperature range is from room temperature plus  $10^{\circ}\text{C}$  to  $350^{\circ}\text{C}$ . This allows for high temperatures in various applications. This allows high temperatures to be applied in a wide range of applications.

### Safe and reliable for testing and easy to clean

It has a timed alarm function, overheat protection and an automatic thermal cut-off system for overload. All these systems ensure operational safety and product quality. Aluminium-plated plate thickness of 2mm, the inner cavity is clean and smooth, easy to clean without leaving residue, corrosion-resistant internal materials are all used low-pollution materials, the interior of the entire use of trace-free argon arc welding.

## Specification:

Internal Size: W800\*H800\*D800MM

Temperature Range: RT+10~350°C

Accuracy Control accuracy:  $\pm 0.5^{\circ}\text{C}$

Temperature rise rate: RT~100°C, about 10 minutes

Distributed Temperature:  $50\pm 2^{\circ}\text{C}$ ,  $110\pm 2^{\circ}\text{C}$ ,  $150\pm 2^{\circ}\text{C}$ ,  $163\pm 2^{\circ}\text{C}$ ,  $250\pm 3^{\circ}\text{C}$ ,  $350\pm 3^{\circ}\text{C}$  (no load)

Power Supply Voltage: 380V 50Hz

Total Heating Power about :10KW

Controller Located above the door, single door, stainless steel deluxe handle, with explosion-proof locking door buckle.

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# Highly Accelerated Stress Test Chamber

Highly Accelerated Stress Test Chamber is a non-saturated high-pressure accelerated aging tester. It operates under non-saturated humidity conditions (adjustable from 65% to 100% RH), along with controlled temperature and pressure. This HAST chamber is widely used in IC semiconductors, connectors, circuit boards, magnetic materials, polymer materials, EVA, photovoltaic components and other industries-related products for accelerated aging testing shelf life study. This chamber finds applications in the testing of paints and coatings, rubber, plastics, pigments, waterproof materials, adhesives, fabrics, and more chemicals, building materials, medical, aerospace and other products quality testing.



## Standards:

IEC60068-2-66;  
JESD22-A102-C;  
JESD22-A110-B;  
JESD22-A118;  
GB/T 2423.40-1997

## Features:

**Energy Saving and Power Saving, Reliable Operation**

External rotor fan, large elevation angle, large air volume, low-speed mute, turn axial fan sound energy saving 30%. The water pipe adopts copper pipe + bell, precision design, good air tightness, and low water consumption. Controller operation adopts a fuzzy algorithm to ensure precise operation.

**Automated Control System, More Accurate Control**

The water tank adopts 16L large-capacity water tank, which is placed at the bottom of the box, and adopts the latest active automatic water replenishment system, which effectively prevents the heating tube from dry burning; the test will not be terminated; the equipment will automatically remove the pressure at the end of the test.

**Good Sealing Performance, Long Service Life**

Special packing material: high temperature resistant rubber foam molding, the greater the pressure of the inner box, packing will have counterpressure will make it more closely combined with the box, and the traditional extrusion type is completely different, can extend the packing life.

**Strictly Selected Materials, Standard Design is Safer:**

Arc double liner design, stainless steel round test chamber structure, in line with industrial safety container standards, can prevent condensation and moisture phenomenon in the test, but also to avoid the direct impact of steam overheating, to meet the UHAST and BHAST test requirements. Meanwhile, the product design separates water and electricity, which is safer.

**Intelligent and Easy to Operate**

Critical point LIMIT mode automatic safety protection, abnormal causes and faults show the machine has a timed drying function, so that the test product is in a dry state. Controller human-machine interface interactive and friendly form design, 7" TFT true color LCD touch screen, easy to operate.

**Easy to Clean and Operate, Good Heat Dissipation**

You can monitor the operation of the machine and control the machine remotely via LAN or by connecting the machine directly to a computer. V-type condenser, large area heat dissipation design, efficient cooling. Cold rolled plate baking paint is easy to take care of, corrosion resistance, high and low temperatures.

**Multi-port Data Support, Convenient to Monitor the Test Process**

With USB interface to copy records directly, including historical curves, historical data, etc., directly copied to the computer to view and analyze and save the disk. Optional RS-232 or RS-485 communication interface, can be bi-directional control of the machine and computer hard disk storage data. Large program capacity: 269 groups of program functions, each group of programs can be edited 50 paragraphs.

## Specification:

Inner Box Size:  $\phi 400 \times D500$  mm round test box (can be customized according to requirements)

Outer Box Size: Width  $\leq 700$ mm, Height  $\leq 1600$ mm, Depth  $\leq 1100$ mm

Inner Box Material: SUS 316# Stainless Steel Plate Material

Outer Box Material: Senior Baking Paint

Temperature Range: non-saturated  $100^{\circ}\text{C} \sim +135^{\circ}\text{C}$  saturated  $105^{\circ}\text{C} \sim +135^{\circ}\text{C}$

Temperature Fluctuation:  $\leq \pm 0.5^{\circ}\text{C}$ .

Temperature Uniformity:  $\leq \pm 2.0^{\circ}\text{C}$ .

Humidity Range: 75%RH~100%RH.

Humidity Fluctuation:  $\leq \pm 2.5\%$  R.H.

Humidity Uniformity:  $\leq \pm 3.0\%$  R.H.

Pressure Range:  $0.2 \sim 2 \text{ kg/cm}^2$  ( $0.02 \sim 0.196 \text{ MPa}$ / $2.9 \sim 28.45 \text{ psi}$ )

pressure on the table inside the box, (ambient atmospheric pressure, then add another 1 atmospheric pressure)

Temperature Distribution:  $\leq \pm 2.0^{\circ}\text{C}$ .

Temperature Rise Time: room temperature  $\rightarrow +135^{\circ}\text{C}$  about 50 min;

Boosting Time: Normal pressure  $\rightarrow +2 \text{ kg/cm}^2$  about 50 min.

External gas source pressurization: about 5 min.

Control Object: Microcomputer + P.I.D. + S.S.R. Automatic calculation control of saturated vapor temperature.

Control Mode: Microcomputer PID Control

Control Accuracy:  $\leq \pm 0.5^{\circ}\text{C}$ .

Analysis Accuracy:  $0.1^{\circ}\text{C}$ .

Installed Power: about 4 kW

Maximum Current: 18A

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# Laboratory Oven

Laboratory Oven, mainly used for baking, drying, heat treatment, heating and sterilisation. Industrial and agricultural production, scientific research institutions, medical and health units of the laboratory can be used, but generally not for volatile substances, flammable and explosive substances. Laboratory can be used, but generally do not apply to volatile substances, flammable and explosive substances to avoid causing explosions.



## Features:

### Precise temperature control:

The drying oven is able to maintain a stable temperature to meet the needs of various applications through a precise temperature control system.

### Safe and reliable operation:

The shell material is stainless steel, which has strong corrosion resistance and durability; at the same time, it is equipped with multiple safety protection measures, such as over-temperature protection and leakage protection.

### Uniform hot air circulation:

The drying oven is equipped with internal fan and ventilation system, which can make the hot air circulate evenly in the oven and improve the drying efficiency of materials.

### Wide range of application:

The drying oven can be applied in various industrial fields, such as medicine, food, chemical industry, electronics, etc., for material drying, heating treatment, testing and baking processes.

## Specification:

Range: RT 200°C

Accuracy: 0.1°C

Ambient Temp.: +5-40°C, the relative humidity is less than 85%

Timing Range: 1-9999 min

Shelves: 2 pcs (40 L & 70 L), 3pcs (140 L & 240 L)

Interior size: 40L 350\*300\*400 mm (WxDxH), 70L 400\*320\*550 mm (WxDxH),

140L 500\*380\*750 mm (WxDxH), 240L 600\*450\*900 mm (WxDxH)

Power: 220 / 110 V 50 / 60 Hz

0.85Kw-40L, 1.1Kw-70L, 1.55Kw-140L, 2.05Kw-240L

Weight: 40kg, 55kg, 100kg, 180kg

Dimensions: 40L 505\*635\*600 mm (WxDxH), 70L 560\*670\*750 mm (WxDxH),

140L 655\*715\*980 mm (WxDxH), 240L 755\*785\*1130 mm (WxDxH)

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# Salt Spray Tester

Salt spray tester, which test the corrosion resistance of coatings, paints and products by simulating a high salt spray environment for a certain period of time. A salt spray test chamber sprays a sodium chloride solution onto the surface of an electrophoretic coating for testing. This salt spray test chamber is easy to use and is suitable for all kinds of tests in the laboratory.



## Features:

Automatic demisting to avoid spray leakage  
Exhaust pipe, diameter 48mm (pvc-u) pipe, combined with the mist eliminator in the outdoor, no water accumulation phenomenon, so that the fog naturally discharged. Equipped with sealed water tank, using the water seal principle, to avoid spray leakage.

Spray adjustable, uniform degree of atomisation  
Equipped with spray regulator, easy to adjust the spray density.  
Turn to the high position, the spray density increases, turn to the low position, the spray density decreases.

Anti-corrosion and temperature resistance, easy to observe  
The shell and liner of the salt spray chamber are made of PVC, which has better corrosion resistance. The test lid adopts a roof slanting 100-degree see-through lid, used to cover the top of the test chamber, the test shell is clear, easier to observe the test situation.

Automatic water level control  
The brine preheating tank is located at the bottom of the spray tower and the brine is injected through the brine refill bottle.  
The water level is automatically controlled by a float and a drain is installed at the bottom of the tank.

## Specification:

Test Chamber: 108 L or 270 L

Test Solution Volume: 15 L

Temperature Test: NSS.ACSS 35°C±1°C, CASS 50°C±1°C optional.

Air Temperature: NSS.ACSS 47°C±1°C, CASS 63°C±1°C optional

Internal Dimensions: 600 x 450 x 400mm or 900 x 600 x 500mm

External Dimensions: 1060 x 570 x 1060mm or 1420 x 980 x 1285mm

Weight: 164kg

Power: 220V 50/60Hz 4kW or 6kW

Package Size: 108 litres: 1260 x 860 x 1300mm

270 litres: 1620 x 1060 x 1450mm

## Standards:

This machine is manufactured in accordance with but not limited to the following standards :

ASTM B117、GB/T2423.17

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# Temperature Shock Test Chamber-Three Zone

Temperature Shock Test Chamber-Three Zone, there are three zones: high temperature zone, low temperature zone and test zone. The sample is placed in the test area and cannot be moved. Thermal shock test chamber is metal, plastic, rubber, electronics and other materials industry essential test equipment for testing material structure or composite materials, in the very high and very low temperatures by the temperature instantaneous rapid changes in a certain number of times, to be able to detect in a short period of time due to thermal expansion and contraction of the specimen caused by the chemical changes or physical damage.



## Features:

High precision sampling, energy saving and power saving:  
0.1 high-precision sampling, sampling for 1M, instead of computer storage, large storage space, 24 hours continuous boot can save 3 months of data. New PWM cold control technology to achieve low-temperature energy-saving operation. Refrigerant servo valve flow algorithm control. Power saving 30%.

Support a variety of data transmission modes, convenient for remote monitoring and data collection: With USB interface, you can download the historical curve, historical data, instead of the recorder to support RS485, LAN (network port), GPRS (mobile phone) and other ways of communication, convenient for remote monitoring and data acquisition. USB2.0, can be tested to run the data recording and downloading.

A variety of safety protection devices:

Compressor overpressure protection, compressor thermal overheating, compressor motor overcurrent, adjustable over-temperature protection, test space temperature fuse, air conditioning channel over-temperature, leakage short-circuit protector, the total power supply phase sequence protection, overload disconnection protection, load short-circuit protection.

## Specification:

Volume and Size Nominal content area: 80L

Inner box size(W X D X Hcm): 40X50X40

Outer box size(W X D X Hcm): 155x170x185

Preheating upper temperature: +200 °C

Warming time: room temperature → +150 °C ≤ 40min

Note: The temperature rise time is the performance of the high-temperature box when operating alone

Pre-cooling lower limit temperature: -55°C

Cooling time: room temperature → -60 °C ≤ 60min

Note: The cooling time is the performance of the cryostat when operating alone

Shock temperature -40°C~+150°C

Temperature deviation: ±2.0°C (at constant, no load)

Temperature fluctuation: ≤±0.5°C

Temperature changeover time: 3~5min

Damper switching time <5sec

Impact dwell time 15 min or more

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# Temperature Shock Test Chamber-Two Zone

Temperature Shock Test Chamber-Two Zone, there are two areas of high temperature and low temperature area, its "test area" is a basket, loaded with test samples in the high temperature area and low temperature area between the movement. It is suitable for the safety performance test of electronic components to provide reliability test, product screening test, etc. Meanwhile, through the test of this equipment, it can improve the reliability of the product and product quality control.



## Features:

**Durable and stable performance:**

Using high and low temperature heat storage tank and thermal energy storage tank, open DAMPER according to the action requirements, the cold and hot energy in the heat storage tank will be introduced into the test box to achieve the effect of rapid temperature shock, balanced temperature control system (BTC) + special design of the air supply circulatory system, the dynamic P.I.D. way of controlling the SSR, so that the amount of system heating is equal to the amount of heat loss, and therefore it can be used for a long time in a stable manner.

**Automatic control, energy saving and power saving:**

Under low-temperature working condition, the heater is not involved in the work, and the refrigerant flow and flow direction of the refrigeration unit are adjusted through PWM technology control, so as to achieve three-way flow adjustment of refrigeration pipeline, cold by-pass pipeline and heat by-pass pipeline, and realise the automatic constant temperature of the studio. This method can reduce energy consumption by 40% under low temperature conditions. Algorithmic control of refrigerant servo valve flow saves power by 30%.

**High temperature and high humidity testing to prevent condensation, drip technology industry-leading:** Temperature synchronised ramp control (IEC 68-2-56, 68-2-30), no dripping, no condensation, no condensation. Quadruple glazed viewing window with internal heater glass surface with electronic heating prevents water condensation and frost.

**Humanised design, easy to operate:**

Chinese and English humanised prompts for fault causes and troubleshooting methods, 16 sets of fault alarms can be monitored and output simultaneously. USB disk recording function, no need for logger.

## Specification:

High temperature setting range:  $+60^{\circ}\text{C}\sim+180^{\circ}\text{C}$ ,  $+60^{\circ}\text{C}\sim+180^{\circ}\text{C}$ ,  $+60^{\circ}\text{C}\sim+180^{\circ}\text{C}$

High and low impact temperatures :  $+150^{\circ}\text{C}$

Low Temperature Setting Range:  $-70^{\circ}\text{C}\sim-10^{\circ}\text{C}$ ,  $-65^{\circ}\text{C}\sim-10^{\circ}\text{C}$ ,  $-75^{\circ}\text{C}\sim-10^{\circ}\text{C}$

5.5 Low temperature shock temperature :  $-40^{\circ}\text{C}$ ,  $-55^{\circ}\text{C}$ ,  $-65^{\circ}\text{C}$

High and low temperature impact range:  $-40^{\circ}\text{C}\sim+150^{\circ}\text{C}$ ,  $-55^{\circ}\text{C}\sim+150^{\circ}\text{C}$ ,  $-65^{\circ}\text{C}\sim+150^{\circ}\text{C}$

Preheating warming time:  $+20\sim+180^{\circ}\text{C}$ ,  $\leq 60\text{min}$

Pre-cooling cooling time:  $+20\sim-70^{\circ}\text{C}$ ,  $\leq 80\text{min}$ ;  $+20\sim-65^{\circ}\text{C}$ ,  $\leq 80\text{min}$ ;  $+20\sim-75^{\circ}\text{C}$ ,  $\leq 90\text{min}$

Temperature transition time:  $\leq 10\text{ seconds}$

Temperature rise and fall overshoot:  $\leq \pm 3^{\circ}\text{C}$

Temperature stabilization time:  $\leq 3\text{MIN}$

Temperature recovery performance:  $30\text{min}$

Temperature Fluctuation:  $\pm 0.5^{\circ}\text{C}$

Temperature deviation:  $\leq \pm 2^{\circ}\text{C}$

Temperature uniformity:  $\leq \pm 2^{\circ}\text{C}$

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# UV Aging Test Chamber

UV Aging Test Chamber adopts fluorescent ultraviolet lamps that can best simulate the UV spectrum in sunlight, and combines temperature control, humidity supply and other devices to simulate the sunlight, high temperature, high humidity, condensation, dark cycle and other factors that cause damage to materials such as discolouration, brightness, loss of strength, cracking, peeling, chalking, oxidation and other damages, and at the same time, through the synergistic effects of the UV light and moisture to make the material's ability to withstand light or humidity weakened or invalidated, and thus is widely used in the evaluation of the material's weather resistance performance. Such as automotive, paints and coatings, plastics, textiles and fabrics.



## Specification:

Temperature Range: RT+10°C~70°C  
Temperature Uniformity:  $\pm 3^{\circ}\text{C}$   
Temperature Fluctuation:  $\pm 0.5^{\circ}\text{C}$   
Humidity Range:  $\geq 75\% \text{RH}$   
Distance Between The Center of The Lamp: 65~70mm  
Spicemen Center And Lamp: 55mm  
Ultraviolet Lamp: UV-A 340  
Wavelength: 320-400 nm (domestic)  
Standard Spicemen: 75×150mm  
Irradiation Intensity: 0.55 ~ 1.0W / C m<sup>2</sup> within adjustable.  
Spray System: Spray water for 18 minutes, and stop spraying for 102 minutes. Besides, you can set the time.  
Test Cycle: Usually, UV irradiation at high temperatures and dark humid condensation cycles with 100% relative humidity.  
Studio Size: 450×1165×500mm (Depth × Width × Height)  
External Dimensions: D600×W1325×H1480mm  
Inner Liner Material: SUS304 Stainless Steel Plate  
Shell Material: SUS304 Stainless Steel Plate  
Lamp: UVA-340 UV Lamp, Two Rows Of 8, 40W/Only (8 In Total) (Q-Lab, Usa)  
Water Source And Consumption: Clean Water Or Distilled Water 8 Liters / Day (Customer To Provide)  
Control System: The Company's Own Research And Development Of Touch Screen PLC Controller  
Main Components: Omron And Chint

## Features:

**One Machine Multi-purpose, Wide Range of Applications:**

It can be applied to coatings, inks, paints, plastics, adhesives, the automobile and motorcycle industry, cosmetics, metals, electronics, electroplating, pharmaceuticals, pigments, fabrics, plastics, and other industries.

**Full Energy-saving State Operation, Energy Saving and Power Saving:**

Environmentally friendly refrigerant fine control of the flow rate to realize the operation of the full energy-saving control. Reduce power consumption through temperature and humidity balance control, energy saving, and environmental protection.

**Customized Service:**

As a UV test chamber manufacturer, we can provide the OEM UV weather test chamber. If you have special requirements, such as UV aging capacity, required specifications, quality control measures, production capacity and any other relevant factors, please contact us. We can manufacture test chambers according to your requirements.

## Standards:

GB/T14522-93 National Standard of the People's Republic of China "Plastics, Coatings, Rubber Materials for Mechanical Industrial Products, Accelerated Test Methods for Artificial Climate".

GB/T16422.31997eqv ISO4892-3:1994 "Plastic laboratory light source exposure test method".

This product conforms to the standard: GB/T 14522-93, ASTM G 154, ISO 4892-1, ISO 11507 ASTM D 4329.

**3 Major Devices Real Simulation of Environmental Climate:**

UV lamps: 8 UV lamps, simulating the sun irradiation.

Heating: including heating module, simulating high temperature situation.

Rain: pinhole spraying system, simulating the rain effect.

**Realistic Simulation of Sunlight, Rain and Dew, Damage to Various**

**Materials:** It only takes a few days or weeks to reproduce the damage that takes months or years to occur outdoors. Including fading, discoloration, loss of brightness, chalking, cracking, blurring, embrittlement, oxidation and loss of strength.

**3 Wide Design, No Fear of Challenges:**

**Voltage Versatility:** Different regions with different voltages can operate normally. **Humidity Adaptability:** Whether desert or rainforest, our technology remains effective in diverse environmental conditions.

**Temperature Resilience:** To cope with the global climate, no fear of heat and cold can operate stably.

## ChiuVention INSTRUMENT LTD

As one of the climate chamber manufacturers, we are confident that we can solve various things for our customers. Please feel free to purchase our environmental test chamber or connect with us.

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📍 : Industrial Zone No.1, Gangyuan Avenue, Shimei Community, Wanjiang, Dongguan, Guangdong, China

# Water-Cooled Light & Weather Fastness Tester

Water-Cooled Light & Weather Fastness Tester, to simulate the effect of sunlight, and condensing humidity to simulate rain and dew, placing the material under test in a cyclic procedure of alternating light and moisture at a certain temperature for testing, and it takes days or weeks to reproduce the hazards that occur in the outdoors for months or even years, and artificially accelerates the weathering test data. It is suitable for testing the colour fastness of textiles. Tests include light, weathering and perspiration effects. And it provides a comprehensive colour fastness assessment for pigments, paints, rubber, plastics, flooring and paper.



## Standards:

AATCC TM16-3  
ISO 105-B04  
GB/T14576  
GB/T1685  
AATCC TM16-4  
ISO 105-B06  
GB/T 8430  
GB/T16991-2008  
AATCC TM16-5  
ISO 11341  
GB/T 18102  
GB/T15102-2006  
ISO105-B02  
GB/T8427-2008  
GB/T 28998  
GB/T15104-2006

## Features:

Various functions to meet different testing needs

Meet the requirements of different standards on the stability of the test light source, with digital setting of light intensity, real-time monitoring and automatic adjustment function (monitoring band can be 420 nm, 340 nm or 300-400 nm).

Real-time display of test data

Blackboard panel thermometer (BPT) or blackboard standard thermometer (BST) can be selected. The machine is equipped with BST, which is tested at the same station with the specimen, reflecting the actual test conditions of the specimen. The test data is processed by the central processor and displayed on the colour screen in the form of figures, graphs and curves, so there is no need to stop the machine for observation.

Multi-purpose, simple and convenient operation

10.4-inch colour IPC display control, multiple test monitoring modes (digital, graphical), easy to operate, intuitive and clear.

Realise individual timing for each specimen gripper, different specimens can be tested on one machine, convenient for testing and monitoring.

Stable operation and intelligent temperature adjustment

Specialised water purification and circulation system reduces running costs. Intelligent air conditioning system regulates the temperature of the test chamber quickly and stably. The integrated self-circulation system and air filtration system greatly reduces environmental requirements.

## Specification:

Blackboard Standard temperature control range: 50~130°C, resolution 0.1°C.

Blackboard panel temperature control range: 45~125°C, resolution 0.1°C

Testing chamber temperature control range: 30~85°C, resolution 0.1°C.

Testing chamber humidity control range: 10~95%RH (Bright cycles≤70%RH, Dark cycle≤95%RH), resolution 0.1%RH.

Time control of test range: 0~9999hours59min; precision±1min.

Control of irradiance range: 0.8~2.20W/m<sup>2</sup> @420nm, ±0.02W/m<sup>2</sup> @420nm; (@340nm, @300-400nm, @300-800nm) digital setting, automatic compensation.

0.2~0.8W/m<sup>2</sup> @340nm ±0.01W/m<sup>2</sup> @340nm;

30~80 W/m<sup>2</sup> @300-400nm ±2W/m<sup>2</sup> @300-400nm;

400~1100 W/m<sup>2</sup> @300-800nm ±10W/m<sup>2</sup> @300-800nm;

Light source: Rated power of xenon arc lamp: 4.5KW.

Specimen: a. Rotation speed of specimen holder: adjustable between 1-7rpm.

b. Dimensions and amount of specimens to be mounted and clamped: 35 pieces of 145×75mm sample plates or 46 pieces of 145×45mm sample plates.

c. Individual timing for each specimen grippers≤10000h.

d. Specimen thickness≤4mm.

Power source: 3-phase 4-wire system. The ground wire needs to be external.

External dimensions: 1260×850×1880mm(L×W×H)

Weight: 400kg

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# AtmoExplorer Temperature & Humidity Chamber

AtmoExplorer Temperature & Humidity Chamber is suitable for testing the heat resistance, cold resistance, dry resistance, moisture resistance and other properties of the material. It is suitable for the use of electronic, electrical appliances, mobile phones, communications, instruments, vehicles, plastic products, metals, food,



## Features:

**ChiuVention Climate Chamber Has A Wide Range Of Applications:** The test chambers can simulate the environment of high temperature, low temperature, high humidity, and low humidity. And this temperature humidity chamber is suitable for testing requirements in various fields and industries such as electronics, materials research, medicine, automobiles, food, etc.

**The Constant Temperature Humidity Chambers Operates Stably:** The heating element is made of spring-loaded Nichrome wire. Solenoid valve and other refrigeration auxiliary parts are used first-line brands. France imported "Taikang" full closed type high-efficiency compressor. Humidifier for stainless steel electric steam generator in the form of UL-type humidifier.

**Safety Protection Device Of Constant Temperature And Humidity Chamber:** Anti-burn switch, no fuse switch protection. Short-term water shortage alarm and long-term water shortage shutdown protection. Compressor high pressure protection, compressor overheating protection, compressor overcurrent protection.

**Functional Structure Of The Climate Cabinet:** 7 inch large touch screen, easy to operate. Built-in LED window lighting, easy to observe the sample. Equipped with RS-232, USB interface, external computer copy data. With reservation startup and shutdown function, key and screen lock function. With power failure program memory, automatically start and continue to execute the program function after power restoration.

## Specification:

Temperature range: -20°C~+150°C

Humidity range: 20-98%RH

Temperature and humidity control accuracy:  $\pm 0.5^{\circ}\text{C}$ ;  $\pm 3\%\text{RH}$

Temperature and humidity distribution uniformity:  $\pm 2^{\circ}\text{C}$ ;  $\pm 3\%\text{RH}$

Heating time: temperature to 100°C within 30 minutes

Cooling time: temperature down to -20°C within 60 minutes

Testable area: 500\*750\*600mm (D\*W\*H)

Various Sizes Can Be Customized: such as 80L, 150L, 225L, 408L, 800L, 1000L

**Rapid Heating And Cooling Of The Environmental Test Chamber:**

When unloaded, the AtmoExplorer can achieve heating from room temperature to 100°C within 30 minutes. It can also achieve cooling from room temperature to -20°C within 60 minutes.

Power: 380V 50HZ 20A 3 $\phi$  4 wire

Weight: 295kg

Dimension: 225L 1330\*940\*1670mm (D\*W\*H)

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