





## XENON ARC CHAMBERS & UV CHAMBERS

**Accelerated Weathering Test** 











Xi'an LIB Environmental Simulation Industry www.lib-industry.com

#### Company

Xi An LIB Environmental Simulation Industry manufactures and sells environmental test chambers since 2009, including design, manufacuring, as well as sales and service around the world. All LIB products have passed CE and ROHS certification, as well as other national certifications.

Manufacturer and Supplier of Environmental Test Chamber

We deeply realized that quality is the first and most. We control quality from every aspect of raw material, production and inspection. After test chamber completed, we test its performance, inspect its functionality, go commissioning, work on calibration, and issue report for every steps, to guarantee the quality. We also pay more attention to delivery and shipment. We guarantee delivery on time, and have the obligation to advance delivery.

LIB Industry concentrates on providing the Turn-key solution for environmental testing, that research, design, producing, commissioning, delivery, install and training, provide the whole products and service according to customer's requirements..

Regarding sales, LIB direct sales and setting up local agents around the world allow customers to purchase LIB test chambers more conveniently. By 2020, our market has spread to 56 countries around the world, and the market continues to expand.

Regarding service, LIB Industry provides 3 years warranty service. In order to ensure that the customer has a timely and effective solution to the after-sales, LIB's after-sales service center and local service center work together to serve customers around the world.

We have elite team to service our customers. We provide professional solutions, right equipment, and timely reply to our worldwide customers. When we get questions and requests, we reply within 1-3 hours to our clients.







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### **Xenon Accelerated Weathering Test Chamber**

LIB xenon test chamber uses a xenon arc lamp as a light source to emulate true environmental conditions. The chambers control, monitor and display temperature, humidity, black panel temperature and irradiance. All models are automatic operation and running.

#### **Automatic operation**

The xenon chamber runs automatically according to the program.

#### **Easy to Operate**

All models are easy to operate and install. The Chambers can match the operating software or connect to the lab WEB system.

#### **Customized Systems**

Can customize the size, configuration, specimen holder and performance to fit your testing needs.



#### Specification

Model	XL-S-750	
Internal Dimension (mm)	950*950*850 mm	
Overall Dimension (mm)	1400*1400*1950 mm	
Specimen Holder Size(mm)	95*180	
Specimen Capacity	42pcs	
Chamber Type	Rotating Holder	
Irradiation Source	1 piece of 4500w water-cooled xenon arc lamp	
Irradiance Range	35~150 W/ m²	
Bandwidth Measurement	300nm~400nm (340nm or 420nm)	
Chamber Temperature Range	Ambient $\sim$ 100 °C $\pm$ 2°C	
Black Panel Temperature	BPT 35 ∼ 85 °C ±2°C	
Humidity Range	50% ~ 98% RH	
Humidity Deviation	± 5% RH	
Water Spray Cycle	1~9999H59M (Adjustable)	
Controller	Programmable color LCD touch screen controller	
Water supply system	Automatic water supply, Water purification system	
Radiometer	UV Radiometer, Tolerance: ±5%	
Cooling System	Mechanical compression refrigeration system	
Humidification System	External isolation, stainless steel surface evaporation humidifier	
Safety Device	Over-temperature Protection; Over-current Protection; Water Shortage Protection; Earth leakage Protection; Phase Sequence Protection	
Exterior Material	Steel plate with protective coating	
Interior Material	SUS304 stainless steel	
Thermal Insulation	Polyurethane foam and insulation cotton	
Observation Window	Interior lighting, double-layer thermo stability silicone rubber sealing	



#### Workroom

The internal material is 304 stainless steel, mirror surface, rust-proof to high and low temperature and moisture corrosion resistance.

Rotating specimen holder, water spray nozzle, radiometer, temperature and humidity sensors and black panel all configured in the workroom.



#### Irradiation Source

Irradiation Source with 1 piece of 4500 W water-cooled xenon lamp. Average Lamp Life is 1600 hours.



# Sample

#### Mount the Specimen

Inside there is a rotating specimen holder, which rotates around the xenon lamp, so that the irradiance received by the specimen is relatively uniform during the test.

Standard flat specimen can be mounted, and easy to mount.

In addition to the standard flat holder, you can select the 3-D specimen holder for option.

#### Easy To Use

Can edit 20 programs 99 segments.

Multiple languages can be selected, English, Chinese, Russian, Korean, German, French, Polish, Spanish, Turkish, Romanian

Control the chamber for anytime, anywhere access from any device (PC or smarphone ) using LAN.

#### Filters

Daylight and windows filters for choose Including Daylight Q, Daylight B/B, Window Q, Window B/B filters.

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## **Xenon Accelerated Weathering Test Chamber**

XL-S-500 is a flat type workshop and a shelf for placing test specimens, suitable for 3D specimen or irregular samples.





#### Workroom

The internal material is 304 stainless steel, mirror surface, rust-proof to high and low temperature and moisture corrosion resistance.

Flat type workroom, a shelf for placing test specimens.

Suitable for 3D specimen or irregular samples.

#### Specification

Model	XL-S-500
Internal Dimension (mm)	500*600*700 mm
Overall Dimension (mm)	1000*1140*1920 mm
Chamber Type	Flat shelf
Irradiation Source	4500w water-cooled xenon arc lamp
Irradiance Range	35~150 W/ m²
Bandwidth Measurement	300nm~400nm (340nm or 420nm)
Chamber Temperature Range	Ambient ∼ 100 °C ±2°C
Black Panel Temperature	BPT 35 ~ 85 °C ±2°C
Humidity Range	50% ~ 98% RH
Humidity Deviation	± 5% RH
Water Spray Cycle	1~9999H59M (Adjustable)
Controller	Programmable color LCD touch screen controller
Water supply system	Automatic water supply, Water purification system
Radiometer	UV Radiometer, Tolerance: ±5%
Cooling System	Mechanical compression refrigeration system
Humidification System	External isolation, stainless steel surface evaporation humidifier
Safety Device	Over-temperature Protection; Over-current Protection; Water Shortage Protection; Earth leakage Protection; Phase Sequence Protection
Exterior Material	Steel plate with protective coating
Interior Material	SUS304 stainless steel
Thermal Insulation	Polyurethane foam and insulation cotton
Observation Window	Interior lighting, double-layer thermo stability silicone rubber sealing

Chamber Type- Flat Shelf



#### **Metal Halide Lamp test chamber**

Metal halide lamp test chamber are installed with metal halide lamp on top, metal halide offers significant acceleration factors compared to traditional fluorescent and xenon light sources.

These test chambers are used for ageing test of automotive components, PV component.

#### **Irradiation Source**

The Metal Halide Lamp produces ultraviolet energy that is much stronger than other light sources.

#### **Options and customization**

Can customize the size, configuration, and performance to fit your testing needs.

#### **Chamber with Combination Cycling**

Chamber with combination cycling of temperature, humidity and water.



#### **UV Weathering Test Chamber**

The LIB UV Test Chamber is used to perform UV light accelerated weathering tests on the products and materials, can simulate the damage caused by UV light, temperature, humidity and rain. Model UV-SI-260 is widely used weathering testing.

UV test chamber uses UVA-340, UVB-313 fluorescent UV lamps for a variety of test conditions. All models are upgrade to programmable controller and Ethernet access that provides simple operation and control.



#### Lamp life display

LIB has designed a UV lamp current display meter on the control panel, used to remind the user to replace the new lamp according to the status.

#### **Easy to Operate**

All models are easy to operate and install.

Control the chamber for anytime, anywhere access from any device (PC or smarphone ) using LAN.

#### **Customized Systems**

Can customize the size, configuration, specimen holder and performance to fit your testing needs.

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#### **Specification**

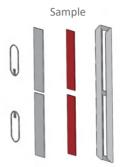
Model	UV-SI-260	
Internal Dimension (mm)	450*1170*500	
Overall Dimension (mm)	610*1330*1470	
Specimen Holder Size(mm)	75*150	
Specimen Capacity	52 Pieces	
Irradiation Source	Fluorescent UV lamps (8) - 40 W	
Temperature Range	Ambient ∼ 90 °C ±2°C	
Black Panel Temperature (BPT)	35 ∼ 80 °C	
Humidity Range	≥ 95% RH	
Bandwidth	290 ~ 400nm	
Irradiance Control	0.15~5 W/ m²	
Water Spray Cycle	1~9999H59M (Adjustable)	
Distance of Specimen and lamp	50mm	
Controller	Programmable color LCD touch screen controller, Ethernet connection	
Water Supply System	Automatic water supply, Water purification system	
Safety Device	Over-temperature Protection; Over-current Protection; Water Shortage Protection; Earth leakage Protection; Phase Sequence Protection	
Exterior Material	Steel Plate with protective coating	
Interior Material	SUS304 stainless steel	

#### **UV lamps**

UVA 340 nm and UVB 313 nm fluorescent UV lamps are available for the UV Test. The chamber is equipped with total of 8 lamps, each 40W.

LIB has designed a UV lamp current display meter on the control panel, used to remind the user to replace the new lamp according to the status.





#### Easy to mount the specimen

Flat specimen holders, aluminum panels with rings.

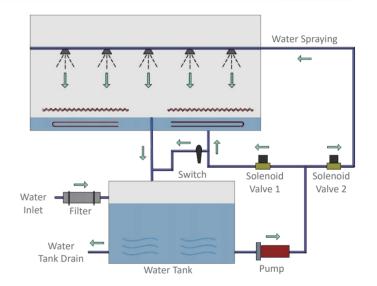
Each specimen size is 75mm \* 150mm, can hold 52 pieces.

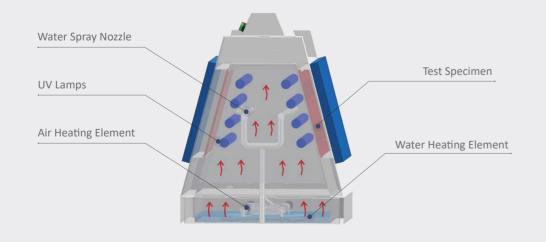
In addition to the standard flat holder, you can select the 3-D specimen holder for option.

#### **Save Water**

The water spray Chamber built with a water re-circulation system that reduced water use and a series of water pipes.

Automatic water supply ensures adequate supply of water and automatic testing.











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#### Manufacturer and Supplier of Environmental Test Chamber

#### **UV Preconditioning Test Chamber**

Our UV preconditioning chamber offers UV(Ultra violet) light exposure for accelerated testing of photovoltaic (PV) modules and for UV pre-conditioning required by IEC 61215 and 61646 for PV module testing.

#### **Irradiation Source**

Both UVA & UVB bulbs are utilized for all accelerated weathering test methods as requested in the UV preconditioning test.

#### **UV Preconditioning Test**

The UV preconditioning test is performed at a temperature of  $60^{\circ}\text{C}\,\pm5^{\circ}\text{C}$ , while subjected to UV irradiation.

#### **Comprehensive Chambers**

Our comprehensive chambers to test PV modules, in addition to UV pre-conditioning chamber, including thermal cycle, humidity freeze and damp heat chambers, salt fog corrosion chambers, dust and water chambers.





# Manufacturer And Supplier of Environmental Test Chamber

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