

# CERTIFICATE



# COMPANY PROFILE

Xi'an LIB environmental simulation industry is a manufacturer and supplier of environmental test chambers. 11 years production, sale and service for international market and domestic. Equipment and service access to more than 42 countries.

We deeply realized that quality is the first and most. We control quality from the materials, electronic parts, controller, compressor, solenoid valve, pumps, lamps, accessories and many assembly parts of the products. After test chamber completed, we test its performance, inspect its functionality, go commissioning, work on calibration, and issue report for every step, 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.

All our test chambers accept third party inspection, such as SGS, UL, CSA, CE, RoHS and ISO calibration. We closely cooperate with third party to complete the inspection.

3 years warranty and lifelong follow-up services make customers believe us and trust our products.

Contact us to get brochure and best quote.



Xi'an LIB Environmental Simulation Industry

# Temperature & Humidity Test Chamber

Supply a large range of standard and custom temperature and climate test chambers to suit many types of environmental test conditions. Our climate and humidity test chambers are available in a variety of sizes and configurations, ranging in size from 50Liters to 3000Liters, including benchtops, floor type and walk-in. Included are ultra low temperature test chamber, high rate change of temperature chambers (15°C/min) and temperature with humidity chambers.



- ▶ To perform temperature & humidity test, cold resistance test, thermal cycle test, ultra low temperature test, high temperature test, storage condition, and calibration function.
- ▶ Benchtop chambers are available in 30 liters, 50 liters and 80 liters, compact, portable and affordable.
- ▶ Floor types have more than 26 models to achieve various tests.  
Standard configuration including 2 adjustable trays, 1(2 or more) test hole with silicone screw plug



Low temperature as follows

A: -20°C ~ +150 °C (+180°C)

B: -40°C ~ +150 °C (+180°C)

C: -70°C ~ +150 °C (+180°C)

D: -86°C ~ +150 °C (+180°C)

High temperature for ovens as follows

+250 °C                      +300 °C

+400 °C                      +500 °C

+700 °C                      +1000 °C

+1200 °C



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# Temperature Humidity Chambers

- ▶ Temperature control and display unit
- ▶ Humidity control and display unit
- ▶ Programmable color LCD touch screen controller
- ▶ Mechanical compression refrigeration system
- ▶ Build-in water tank & automatic water supply
- ▶ USB and Ethernet
- ▶ Adjustable and removable sample shelves
- ▶ Safety protection system
- ▶ Temperature accuracy 0.1°C
- ▶ Different models



Model	TH-100	TH-225	TH-500	TH-800	TH-1000
Internal dimension (mm)	400*500*500	500*600*750	700*800*900	800*1000*1000	1000*1000*1000
Overall dimension (mm)	860*1050*1620	960*1150*1860	1180*1350*2010	1280*1550*2110	1500*1550*2110
Temperature range	A: -20°C ~ +150 °C				
Low type	B: -40°C C: -70°C D: -86°C				
Humidity range	20% ~ 98% RH				
Humidity deviation	± 0.5 °C				
Temperature fluctuations	± 2.0 °C				
Temperature deviation	± 2.5% RH				
Heating rate	3 °C / min				
Cooling rate	1 °C / min				
Cooling system	Mechanical compression refrigeration system				
Humidifier	Evaporating system				
Air circulation	Centrifugal wind fan				
Exterior material	Steel Plate with protective coating				
Interior material	SUS304 stainless steel				





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## Temperature only Test Chambers

Model	T-100	T-225	T-500	T-800	T-1000
Internal dimension (mm)	400*500*500	500*600*750	700*800*900	800*1000*1000	1000*1000*1000
Overall dimension (mm)	860*1050*1620	960*1150*1860	1180*1350*2010	1280*1550*2110	1500*1550*2110
Temperature range	A: -20°C ~ +150 °C				
Low type	B: -40°C C:-70°C D: -86°C				
Temperature fluctuations	± 0.5 °C				
Temperature deviation	± 2.0 °C				
Heating rate	3 °C / min				
Cooling rate	1 °C / min				
Cooling system	Mechanical compression refrigeration system				
Air circulation	Centrifugal wind fan				
Exterior material	Steel Plate with protective coating				
Interior material	SUS304 stainless steel				



- ▶ Temperature control and display unit
- ▶ Temperature control accuracy 0.1°C
- ▶ Programmable color LCD touch screen controller
- ▶ Air cooled compression refrigeration system
- ▶ USB and Ethernet
- ▶ Adjustable and removable sample shelves
- ▶ Safety protection system
- ▶ Standard and custom



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## Benchtop Temperature, and Humidity Test Chamber

- ▶ Small, portable, benchtop design
- ▶ Temperature control and display unit
- ▶ Adjustable and removable sample shelves
- ▶ Wide temperature ranges and volume selection
- ▶ Programmable color LCD touch screen controller
- ▶ USB and Ethernet
- ▶ Humidity control and display unit
- ▶ Safety protection system
- ▶ Mechanical compression refrigeration system
- ▶ Reliable performance
- ▶ Build-in water tank

### Temperature & Humidity Chamber – Benchtop Types

Model	TH-50	TH-80
Internal dimension(mm)	320*350*450	400*400*500
Overall dimension (mm)	800*1050*950	900*1100*1000
Temperature range	A: -20°C ~ +150 °C	
Low type	B: -40°C C: -70°C	
Humidity range	20% ~ 98% RH	
Temperature fluctuations	± 0.5 °C	
Temperature deviation	± 2.0 °C	
Humidity deviation	± 2.5% RH	
Heating rate	3 °C / min	
Cooling rate	1 °C / min	
Temperature Sensor	PTR Platinum Resistance PT100Ω/MV A-class	
Temperature Resolution	± 0.001 °C	
Humidity sensor	Dry and wet bulb sensor	
Humidity Resolution	± 1%RH	
Power Supply	AC220V 50HZ	
Environmental conditional	5°C ~ +40 °C ≤85% RH	



## Rapid Rate Temperature Change Series



- ▶ Rapid Temperature Change 10°C/min / 15°C/min
- ▶ Temperature only or temperature humidity control
- ▶ Programmable color LCD touch screen controller
- ▶ Ethernet and USB
- ▶ Standard & custom
- ▶ Safety protection system

Model	TK10-100	TK10-25	TK10-500	TK10-800
Internal dimension (mm)	400*500*500	500*600*750	700*800*900	800*1000*1000
Overall dimension (mm)	860*1050*1620	960*1150*1860	1180*1350*2010	1280*1550*2110
Temperature range	A: -20°C to +150 °C B: -40°C to +150 °C C: -70°C to +150 °C			
Cooling rate	10°C/min			
Temperature fluctuations	±0.5°C/min			
Temperature deviation	±2.0°C			
Controller	Programmable color LCD touch screen controller			
Cooling system	Mechanical compression refrigeration system			
Refrigerant	R404A, R23			
Exterior material	Steel Plate with protective coating			
Interior material	SUS304 stainless steel			
Power supply	380V 50HZ			

Note: Rapid temperature change rate 10°C/min, 15°C/min



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## 2-Zone Thermal Shock Test Chamber

- ▶ 2-zone elevator type
- ▶ Programmable color LCD touch screen controller
- ▶ Safety protection system
- ▶ Smooth sample elevator transfer between cold chamber to hot chamber
- ▶ Temperature recovery time less than 15 minutes
- ▶ Large viewing window
- ▶ 3 years warranty
- ▶ Different models



Model		TS-162	TS-340	TS-500	TS-1000
Inner dimensions of test room (mm)		300*300*250	450*450*360	650*650*500	850*850*700
Volume of test room (mm)		22L	72L	211L	505L
Load of test room		20kg	30kg	50kg	60kg
Overall dimensions(mm)		1560*870*1545	1710*1020*1845	1910*1220*2265	2110*1420*2665
Pre-heat room	Upper limit pre-heat temperature	+220°C			
	Heating time	Ambient temperature to ~ +200°C, within in 30 minutes.			
Pre-cool room	Lower limit pre-cool temperature	-75°C			
	Cooling time	Ambient temperature to ~ -70°C, within in 30 minutes			
Test room	High temperature exposure range	Ambient temperature +20 to +200°C			
	Low temperature exposure range	-65 to -5°C			
Recovery time		Within 15 minutes			
Temperature fluctuation		≤±0.5°C			
Temperature deviation		≤±3 °C			
Controller		Programmable color LCD touch screen controller			
Cooling system		Mechanical compression refrigeration system			
Exterior material		Steel Plate with protective coating			
Interior material		SUS304 stainless steel			
Power Supply		380V 50HZ			





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## 3TS Series-Thermal Shock Test Chamber

- ▶ Pneumatic damper type thermal shock chamber
- ▶ Temperature recovery time less than 15 minutes
- ▶ Large viewing window
- ▶ Pre-hot room, pre-cool room and test room configuration
- ▶ Ethernet and USB
- ▶ Safety protection system



Model		TS-162	TS-340	TS-500	TS-1000
Inner dimensions of test room (mm)		300*300*250	450*450*360	650*650*500	850*850*700
Volume of test room (mm)		22L	72L	211L	505L
Load of test room		20kg	30kg	50kg	60kg
Overall dimensions(mm)		1560*870*1545	1710*1020*1845	1910*1220*2265	2110*1420*2665
Pre-heat room	Upper limit pre-heat temperature	+220℃			
	Heating time	Ambient temperature to ~ + 200℃, within in 30 minutes.			
Pre-cool room	Lower limit pre-cool temperature	-75℃			
	Cooling time	Ambient temperature to ~ -70℃, within in 30 minutes			
Test room	High temperature exposure range	Ambient temperature +20 to +200℃			
	Low temperature exposure range	-65 to -5℃			
Recovery time		Within 15 minutes			
Temperature fluctuation		≤±0.5℃			
Temperature deviation		≤±3℃			
Controller		Programmable color LCD touch screen controller			
Cooling system		Mechanical compression refrigeration system			
Refrigerating unit		French TECUMSEH compressor			
Refrigerant		R404A, R23			
Exterior material		Steel Plate with protective coating			
Interior material		SUS304 stainless steel			
Power Supply		380V 50HZ			



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## Industrial Oven & Vacuum Oven

▶ LIB heating and drying ovens are available in a variety of sizes and configurations, ranging in size from 20Liters to 2000Liters, including bench-top and standard type.

▶ High temperature ranges have stages: Ambient to +250 °C; Ambient to +400 °C; Ambient to +900 °C

Model	0-100	0-225	0-500	0-800	0-1000
Internal dimensions	400*500*500	500*600*750	700*800*900	800*1000*1000	1000*1000*1000
Overall dimensions	750*880*850	800*950*1000	1100*1100*1300	1100*1450*1400	1300*1400*1400
Temperature range	Ambient ~ +250 °C; ( Ambient ~ +400 °C; Ambient ~ +900 °C)				
Temperature	± 0.5 °C				
Temperature deviation	± 2.0 °C				
Heating rate	About 6 °C / min				
Controller	Digital PID Temperature Controller				
Temperature Sensor	PTR Platinum Resistance PT100				
Heating system	Nichrome heater				
Exterior material	Steel Plate with Protective coating				
Interior material	SUS304 stainless steel				
Timing Function	0.1~999.9 (S、M、H) settable				
Power Supply	AC220V 50HZ	AC220V 50HZ	AC220V 50HZ	AC220V 50HZ	AC380V 50HZ



Model	VO-300	VO-500	VO-800	VO-015	VO-020
Workroom dimensions(mm)	650x600x976	700x800x900	830x1020x1200	1100x1000x1527	1500x1400x1220
Exterior dimensions(mm)	1053x745x1020	1150X1000X1000	1130x1240 x1850	1590x1190x1500	1513x1924 x2060
Temperature range	+35°C ~ +350 °C				
Temperature fluctuation	± 1°C				
Temperature resolution	±0.1°C				
Vacuum degree	<133pa				
Controller	Digital PID Temperature Controller				
Sensor	PTR Platinum Resistance PT100				
Interior material	SUS304 stainless steel				
Exterior material	Steel plate with protective coating				
Timing Function	0.1~999.9 (S、M、H) settable				
Power Supply	AC 220V 50HZ				

### Vacuum Oven



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# Salt Spray Corrosion Test Chamber

Salt spray test chamber is used to test the anti-corrosion quality of all the materials surfaces of painting, coating, electroplating in condition of salt spray environment. Our salt spray chambers are available in SS series and CCT series. SS chambers are salt spray chambers meet ASTM-B117, ISO, IEC and other International Standards test methods. CCT chambers are cyclic corrosion test chambers to perform comprehensive salt spray with climate control tests. Our Salt spray chambers are available in a variety of sizes ranging from 100 liters to 4500 liters.



- ▶ Material is Glass fiber reinforced plastics
- ▶ Temperature control and display unit
- ▶ Salt fog measure and control
- ▶ Continuous / periodic salt spraying
- ▶ Transparent lid to observe samples
- ▶ Standard sample holders
- ▶ Hydrostatic hood seal

Model	S-150	S-250	S-750	S-010	S-016	S-020
Internal dimensions (mm)	470*590*400	640*1000*500	750*1100*500	1000*1300*600	900*1600*720	1000*2000*800
Overall dimensions (mm)	620*1400*1050	810*1800*1180	920*1900*1200	1200*2200*1400	1300*2500*1600	1420*3000*1850
Temperature range	Ambient ~ 60℃					
Humidity range	95% ~ 98% RH					
Temperature fluctuations	+/- 0.5 ℃					
Temperature deviation:	+/- 2.0 ℃					
Test time	1~999 hours, settable					
Spray deposition	1 ~ 2ml / 80cm <sup>2</sup> · h					
Spray type	Continuous / Periodic					
Interior /Exterior material	Glass fiber reinforced plastics					
Standard	ISO 3768/3769/3770, DIN50021-75, ASTM B-117, JIS H8502, IEC 68-2-11, IEC68-2-52, MIL-STD-750, ISO 9227					
Power Supply	220V 50HZ	220V 50HZ	220V 50HZ	AC380V 50HZ	AC380V 50HZ	AC380V 50HZ





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# Cyclic Corrosion Test Chambers

Salt spray (fog), temperature control, humidity control, dry-off function, cyclic corrosion test chambers

Standard: ASTM B117, ASTM G85, ISO9227, IEC60068-2-52 and many others

Size included 780L, 1280L, 1800L

Standard and custom

- ▶ Material is glass fiber reinforced plastics (corrosion resistance, high temperature resistance, aging resistance)
- ▶ Temperature measure, control and display unit, temperature from +10°C to +90°C
- ▶ Humidity measure, control and display unit, humidity from 30%RH to +98%RH
- ▶ Salt fog measure and control, 1 to 2ml/80cm<sup>2</sup>.h
- ▶ Programmable color LCD touch screen controller
- ▶ Ethernet access & USB (option)
- ▶ Standard sample holders
- ▶ Pneumatic open /close lid
- ▶ Protection system

Model	SC-010	SC-016	SC-020
Internal dimensions	800*1450*680	1000*1600*800	1000*2000*900
Overall dimensions	1400*2500*1720	1600*2650*1840	1600*3050*1940
Temperature range	10°C ~ 90°C		
Humidity range	30% ~ 98% RH		
Temperature tolerance	+/- 2.0 °C		
Humidity tolerance	+2%, -3%		
Salt concentration	±1%		
Spray deposition	1 ~ 2ml / 80cm <sup>2</sup> · h		
Controller	Programmable color LCD touch screen controller		
Temperature sensor	PT100Ω / MV A-class		
Humidity sensor	Dry and wet bulb sensor		
Interior /Exterior	Glass fiber reinforced plastics		
Power Supply	AC 380V 50HZ		
Test standard	IEC60068-2-52, IEC61701-2, ASTM G85, ISO 7253		





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## Salt Fog SO<sub>2</sub> Spray Cyclic Corrosion Test Chambers

Salt spray (fog), temperature control, humidity control, dry-off function, cyclic corrosion test chambers

Standard: ASTM B117, ASTM G85, ISO9227, IEC60068-2-52 and many others

Size included 780L, 1280L, 1800L

Standard and custom



- ▶ Material is Glass fiber reinforced plastics (corrosion resistance, high temperature resistance, aging resistance)
- ▶ Temperature measure, control and display unit, temperature from +10°C to +90°C
- ▶ Humidity measure, control and display unit, humidity from 30%RH to +98%RH
- ▶ Salt fog measure and control, 1 to 2 ml/80cm<sup>2</sup>.h
- ▶ SO<sub>2</sub> gas measure and control
- ▶ Programmable color LCD touch screen controller
- ▶ Ethernet access & USB (option)
- ▶ Standard sample holders
- ▶ Pneumatic open /close lid
- ▶ SO<sub>2</sub> exhaust device, safety and clean
- ▶ Protection system

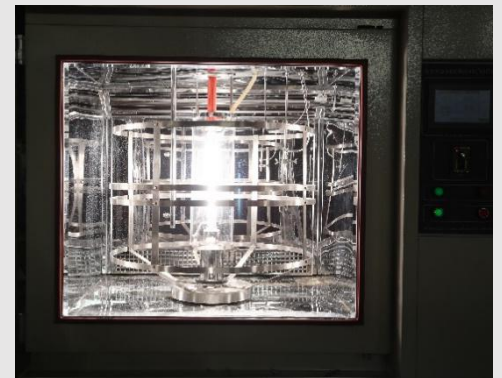




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# Xenon Accelerated Weathering Test Chamber

- ▶ 4500 W water-cooled xenon lamp
- ▶ Ethernet & USB
- ▶ Large viewing window in door
- ▶ Automatic water spraying system
- ▶ Safety protection system
- ▶ Measurement and control of irradiance: 340nm, 420nm or 300-400 nm, 280-800nm
- ▶ Programmable color display touch screen controller
- ▶ Measurement and control of chamber temperature
- ▶ Measurement and control of chamber relative humidity
- ▶ Build-in water reservoir and automatic water supply
- ▶ Measurement and control of Black Panel Temperature (BPT)



Model	XL Series		XL-S-750	
	XL-500	XL-750	XL-S-500	XL-S-750
Chamber Type	Flat Shelf	Rotating Holder	Flat Shelf	Rotating Holder
Internal dimensions (mm)	500*600*700	950*950*850	500*600*700	950*950*850
Overall dimensions (mm)	1200*1150*1700	1300*1420*1800	1200*1150*1700	1300*1420*1800
Specimen holder size	95*200mm	95*200mm	95*200mm	95*200mm
Irradiation Source	1 piece of 1500w air-cooled	1 piece of 6500w water-cooled	1 piece of 1500w air-cooled	1 piece of 4500w water-cooled
Irradiance Range	100~1200 W/m <sup>2</sup>		35~150 W/m <sup>2</sup>	
Bandwidth Measurement	280nm~800nm		300~400nm(340nm or 420nm)	
Chamber Temperature Range	Ambient ~ 100°C± 2°C			
Average Lamp Life	1600 Hours			
Black Panel Temperature	BPT 35 ~ 85°C±2°C			
Relative Humidity Range	50~98% R.H±5% RH			
Water Spray Cycle	1 ~ 9999H59M, adjustable			
Controller	Programmable color display touch screen controller			
Power Supply	AC380V 50HZ			



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# UV Weathering Test Chamber

- ▶ Fluorescent UV lamps (8) - 40 W
- ▶ Temperature from Ambient to +90°C
- ▶ CE and RoHS compliance, ISO17025 calibration
- ▶ Easy to mount samples on the holders
- ▶ Black Panel Temperature (BPT) at controlled, BPT 30~70°C
- ▶ Build-in water tank and automatic water supply
- ▶ Ethernet and USB
- ▶ Safety protection system



Model	UV-260	UV-SI-260
Internal dimensions (mm)	450*1170*500	450*1170*500
Overall dimensions (mm)	680*1300*1500	680*1300*1500
Capacity of test specimens	48 pieces Individual specimen	48 pieces Individual specimen
Controller	Programmable color display	Programmable color display touch
Temperature range	Ambient ~ 90°C ±2°C	Ambient ~ 90°C ±2°C
Humidity range	≥95%R.H ±2%R.H	≥95%R.H ±2%R.H
Black Panel Temperature	BPT 30~80°C	BPT 30~80°C
Irradiation Source	Fluorescent UV lamps (8) - 40 W	Fluorescent UV lamps (8) - 40 W
UV wavelength	290 ~ 400nm	290 ~ 400nm
Irradiance Control	N/A	0.3 ~ 20 W/m <sup>2</sup> (340 nm / 313 nm)
Water Spray	Spraying water	Spraying water
Distance of Specimen and lamp	50mm	50mm
Nominal power	5000W	5500W
Power Supply	380V 50HZ	380V 50HZ
Standard	ISO4892-3; ASTM D4329	

UV test chamber is equipped with fluorescent UV lamps which can simulate the UV spectra of sunlight, exposes materials to UV light, rain, condensing and temperature at controlled.

UV Weather Resistance Test Chamber is the world's most widely used weathering tester to test types of damages include color change, gloss loss, chalking, cracking, crazing, hazing, blistering, strength loss and oxidation. This UV weathering tester is applicable for the sunlight resistant test of nonmetallic materials and aging test of artificial light sources.



# Sand and Dust Test Chamber

Sand and dust test chambers are made for the simulation of dust and sand conditions. These test chambers are used for evaluating the effects of dust-filled environments in order to validate product seal integrity. Dust test chambers are utilized in Automotive, Electro-technical products, Materiel, Coatings, Solar Energy, etc.

- ▶ Blowing dust controlled by dust blowing mechanism
- ▶ Programmable color display touch screen controller
- ▶ Ethernet and USB
- ▶ A viewing window with a manually controlled wiper
- ▶ Strong stainless steel shelf for placing test specimens
- ▶ Internal illumination in workroom
- ▶ Inside equipped with power interface and vacuum
- ▶ System for specimens
- ▶ Dust collection section
- ▶ Safety protection
- ▶ Easy to operate



Model	DI-800	DI-1000	DI-1500	DI-2000
Internal dimensions (mm)	800*1000*1000	1000*1000*1000	1000*1500*1000	1200*1800*1200
Overall dimensions (mm)	1040*1450*1960	1200*1450*1960	1250*1900*1960	1500*2200*2160
Temperature range	Ambient to +50°C			
Relative Humidity	< 30%RH			
Normal wire diameter	50um			
Normal width of a gap between wire	75um			
The Talcum powder amount	2kg ~ 4kg/m3			
Fight time	0 ~ 99H59M			
Fan cycle time	0 ~ 99H59M			
Specimen power outlet	Dust-proof socket AC220V 16A			
Controller	5.7" programmable color display touch screen controller			
Vacuum system	Equipped with a pressure gauge, air filter, pressure regulator, connecting tube			
Circulating fan	Enclosed alloy low-noise motor, multi-vane centrifugal fan			
Heating system	Independent Nichrome electronic heating system			
Power supply	380V 50HZ	380V 50HZ	380V 50HZ	380V 50HZ
Safety System	Electric leakage, short circuit, Over-temperature, motor overheating Over-current protection/ Power failure memory function for controller			
Standard	IEC 60529, ISO 20653			



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## Water Spray Test Chamber

Water ingress protection test chamber is used to perform the tests for testing the degree of protection provided by a product enclosure. The level of protection against water ingress is represented by an IP code. All LIB test chambers fully complies with IEC 60529 (IP Code standard) and other international standards.

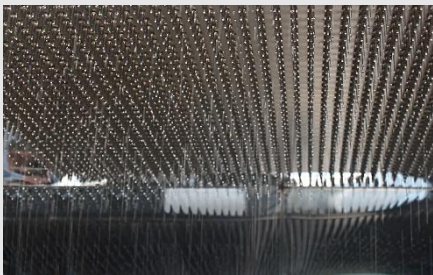
Model	R-800	R-1200
Internal dimensions (mm)	800*800*800	1200*1200*1200
Overall dimensions (mm)	1020*1360*1560	1450*1450*2000
Oscillating tube radius	400mm	600mm
Spraying hole diameter	φ0.4mm	
Hole spacing	50 mm	
Oscillating tube range	±45°, ±60°, ±90°, ±180°(theoretical value)	
Turntable rotation speed	1r/min, or steeples speed regulating (optional)	
Controller	Programmable color display touch screen controller, PC Link with software, R-232 interface	
Water pressure control	Flow meter	
Observation window	Large viewing window with wiper	
Safety protection device	Electric leakage, short circuit, motor overheating, over-current protection	
Standard	IEC 60529, ISO 20653	
Nominal power	4500W	5500W
Power	AC380V 50HZ	AC380V 50HZ

Our water ingress chambers have capabilities for

IP testing included:

IP X1/X2 (drip test)

IP X3/X4 (spray test)





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## IPX5 IPX6 Water Jetting Test Chamber



Model	R56-800C
Workroom dimension (mm)	800*800*800 D*W*H
External dimension (mm)	950*3150*1800 D*W*H
Diameter of turntable (mm)	400
Turntable loads	20kgs Max
Turntable rotation speed	0~7r/min. adjustable For spraying the test specimen from all practicable direction with a stream of water
Nozzle internal diameter	6.3mm for IPX5 nozzle; 12.5mm for IPX6 nozzle
Water flow rate	12.5L/min ±5% for IPX5; 100L/min±5% for IPX6
Power supply	380V 50HZ
Interior material	SUS304 stainless steel
Exterior material	Steel plate with protective coating
Standard	IEC60529, ISO 20653

IPX5 IPX6 Water jetting test chambers to perform test of water projected by a nozzle (6.3 mm) against enclosure from any direction shall have no harmful effects and water projected in powerful jets (12.5 mm nozzle) against the enclosure from any direction shall have no harmful effects

## IPX7 IPX8 Water Immersion Test Equipment

- ▶ Useful volume: Diameter 600mm \*Height 1500mm.
- ▶ Material is A3 steel plate, wall thickness 15mm;
- ▶ Can simulate 50m water depth pressure (MAX:5KG/M3)
- ▶ Automatic water supply
- ▶ Color display touch screen controller
- ▶ Open mode: pneumatic lift with safety lock.
- ▶ Nominal power: 3500W
- ▶ Power Supply: AC380V 50HZ





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# IPX9K High Pressure Water Spray Test Chamber

Protection against water from high pressure steam jet. High pressure and temperature water is jetted at an enclosure to test for ingress protection. IPX9K testing is the highest level of water ingress testing per the IP Code system. Standard: IEC20653, DIN 40050-9, USCAR-2; GMW-3191

Model	IPX9k High Pressure Tester
Internal dimensions (mm)	1000*1200*1000 D*W*H
Overall dimensions (mm)	1250* 1700* 2050 D*W*H
Water Spray Temperature	Ambient ~ 88°C (Adjustable)
Water Spray Angle	0°,30°,60°,90°
Spray Nozzle	Four, 30 seconds each position
Spray Range	30° ± 5°(Single hole); Space 100-150mm
Distance from water spraying to	10~15cm
Water Pressure	8000-10000 Kpa (adjustable)
Water Flow Rate	14L-16L/min
Testing Platform Speed	5 ±1 r.p.m
Test Platform height	200-450mm, adjustable
Test Platform diameters	600mm
Load	≤100kg
Controller	Programmable color LCD touch screen controller
Interior material	SUS304 stainless steel
Exterior material	Steel Plate with protective coating
Power Supply	380V 50HZ, Three-phase five-wire
Standard	ISO 20653, DIN 40050-9, USCAR-2; GMW-3191



- ▶ Protection against high pressure water jetting test
- ▶ IPX9k tests can be performed
- ▶ Programmable color display touch screen controller
- ▶ Ethernet and USB
- ▶ Automatic water supply
- ▶ Large viewing window with wiper
- ▶ Test chamber internal illumination
- ▶ Safety protection



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## Ozone Test Chamber

- ▶ Automatic control and supply ozone gas Equipped with ozone generator
- ▶ Temperature from 0°C to 100°C Relative humidity from 30%~98%R.H
- ▶ Ozone concentration can be adjusted from 0 to1000PPHM
- ▶ Dynamic sample holder
- ▶ Equipped with ozone generator
- ▶ Relative humidity from 30%~98%R.H

LIB ozone test chamber is applicable for rubber or elastomer's resistance to ozone degradation. The elastomer samples are placed in a dynamic specimen holder in chamber that exposes them to ozone at concentration and duration specified by a testing specification or standard.

Model	OC-250	OC-500	OC-800	OC-010
Internal dimensions (mm)	600*600*700	700*800*900	800*1000*1000	1000*1000*1000
Overall dimensions (mm)	960*1150*1860	1180*1350*2010	1280*1550*2110	1500*1550*2110
Diameter of holder(mm)	400	600	700	900
Length of each side(mm)	180	220	350	460
Temperature range	0°C ~ 100°C			
Humidity range	30% - 98%R.H			
Temperature fluctuation	±0.5°C			
Temperature deviation	± 2.0 °C			
Humidity deviation	± 2.5% RH			
Cooling rate	Ambient~ 0°C within 20 min.			
Timing range	0~999 hours			
Ozone concentration:	1~1000PPHM			
Sample holder rotate speed:	0~10 r/min			
Airflow rate	0 ~ 60L/min			
Clamps tensile stretch :	5%~35%			
Power & voltage:	AC380V 50HZ			
Standard	ASTM D 1149; IEC60811-403; ISO 1431; JIS K6259; ASTM D1171			



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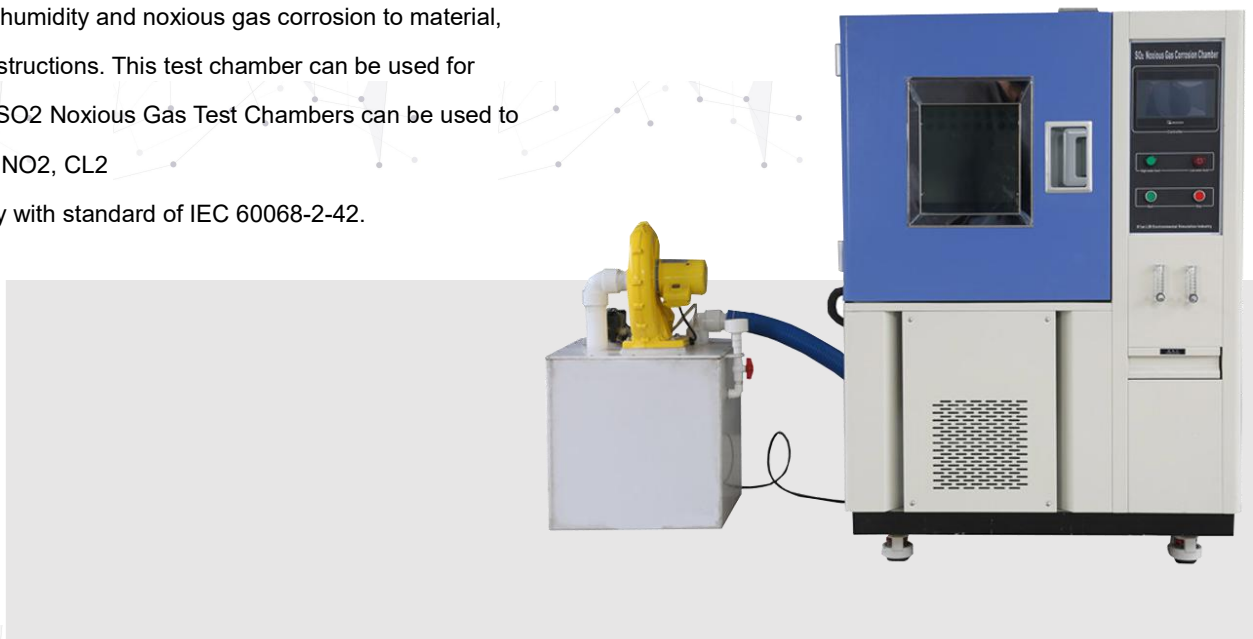
# SO2 Noxious Gas Test Chamber

- ▶ Temperature control and display unit
- ▶ Programmable color LCD touch screen controller
- ▶ USB and Ethernet
- ▶ Safety protection system
- ▶ Temperature accuracy 0.1°C
- ▶ Air cooled compression refrigeration system
- ▶ Adjustable and removable sample shelves
- ▶ Different models
- ▶ 3 years warranty.

Model	SO-100	SO-225	SO-500	SO-800	SO-1000
Internal dimensions (mm)	450*450*500	500*600*750	800*700*900	800*1000*1000	1000*1000*1000
Overall dimensions (mm)	1050*880*1440	1050*1020*2000	1320*1320*2170	1470*1520*2315	1670*1520*2315
Temperature range	15 °C ~ +80 °C				
Humidity range	30%~98% R.H				
Temperature fluctuation	±0.5°C				
Temperature variation	±2°C				
Humidity variation	±2%				
SO2 concentration	25 ±5 ppm				
Air change rate	3 ~ 5 / hour				
Controller	Programmable color display touch screen controller PC Link with software, R-232 interface				
Interior material	Glass fiber reinforced plastics				
Exterior material	Steel Plate with protective coating				
Standard	IEC 60068-2-42				
Power & voltage	AC 380V 50HZ				

SO2 Noxious Gas Test Chambers reproduce damages by temperature, relative humidity and noxious gas corrosion to material, components and constructions. This test chamber can be used for single gas tests. LIB SO2 Noxious Gas Test Chambers can be used to test SO2, H2S, HCL, NO2, CL2

SO2 gas tests comply with standard of IEC 60068-2-42.





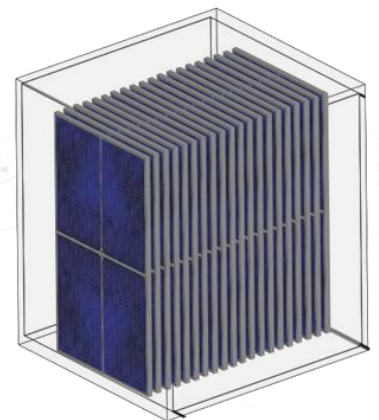
# Test Chamber For Solar Panel Testing

Test chamber is for PV modules (solar panels) thermal cycling, humidity freeze cycle, and damp heat RH testing, to test whether PV modules can withstand high temperature with humidity and low temperature, to test its fatigue and thermal failure after temperature repeated changes, to confirm its thermal stress PV modules generated under high humidity circumstance and capability of long-term resistance to moisture penetration. This test chamber is widely used in solar panels testing.

- ▶ Test chambers are used for following test methods
- ▶ Thermal Cycle Test - 50 and 200 cycles from -40°C to + 85°C;
- ▶ Humidity Freeze Test - 10 cycles from +85°C, 85% RH to -40°C;
- ▶ Damp Heat Test - 1000h at 85°C, 85% RH;
- ▶ Different models for various sizes of PV panels
- ▶ Supporting racks for fix PV panels
- ▶ Adjustable heat & cooling rates
- ▶ Programmable color LCD touch screen controller
- ▶ Mechanical compression refrigeration system
- ▶ USB and Ethernet
- ▶ Standard and custom



Temperature range	-60°C ~ 100°C
Humidity range	20% ~ 98%RH
Temperature fluctuation	±0.5°C
Temperature deviation	±2°C
Humidity deviation	±2%RH
Rise / Fall speed (°C)	1 ~ 3.4 °C/min
Panel size	1m x 2m
Panel capacity	4 / 6 / 8 /10 / 12 pieces
Exterior material	Steel Plate with protective coating
Interior material	SUS304 stainless steel
Controller	Programmable color LCD touch screen controller
Safety protection system	Humidifier dry-combustion protection, over-temperature protection, water
Power supply	AC 380V 50HZ;
Standard	IEC61215, IEC61646, IEC61108, IEC62688, UL1703





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## Walk-In & Drive-In Chambers

LIB Industry designs and manufactures walk in chambers. These walk-in chambers are in piece assembling structure, which enables on-site installation and commissioning. With large volume, the chamber can be used to simulate the single or complicated environmental factors in the atmosphere such as temperature, humidity, salt fog, illumination, dust, rain and vibration. The products can be used to analyze and evaluate the property and performance of the batch elements and parts or machine sets under simulated conditions, and can also be used in experiment and production.



- ▶ Integrated type and disassembling type
- ▶ Design, construction, installation
- ▶ Engineer on-site service
- ▶ 3 years warranty



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# Tunnel Drying Oven

Tunnel ovens are used to enable drying, preheating and heating processes in continuous flow

- ▶ Temperature max +200 °C
- ▶ Conveyor speed 1 meter/ minute (Adjustable)
- ▶ Conveyor length can be customized



Name	Tunnel drying oven
Model	OU-025
Overall dimensions (mm)	1700*3000*1700 D*W*H
Internal dimensions (mm)	2500*1500 L*W
Conveyor load	40kg/m <sup>2</sup>
Belt speed	1 meter/ min (Adjustable)
Temperature range	Ambient ~ 150°C (Adjustable)
Temperature fluctuations	± 0.5 °C
Temperature deviation:	± 2.0 °C
Controller	Digital PID Temperature Controller
Temperature Sensor	PTR Platinum Resistance PT100
Heating system	heating tube heater
Exterior material	Steel Plate with Protective coating
Internal material	SUS304 stainless steel





## Accessories

Name	Picture	Description
Salt Spray Nozzle		Application: Salt Spray Test Chamber Material: Glass
Salt Fog Collector		Application: Salt Spray Test Chamber Material: Glass Size: Superficial area is 80 cm <sup>2</sup>
Salt for Salt Spray Testing		Application: Salt Solution for Salt Spray Test Purity 99.5%
Water Cool Xenon Arc Lamp		Application: Xenon Arc Test Chamber Lamp Power: 4500W
Air Cool Xenon Arc Lamp		Application: Xenon Arc Test Chamber Lamp Power: 1500W
UV Lamp		Application: UV Test Chamber Lamp Power: 40W
Talcum Powder		Application: Sand Dust Test Chamber Particle Size: 45μm Expiration Date: 24 months Storage: Keep in dry place
IPX3 IPX4 Hand Hold Spray Nozzle		Application: Water Spray Test Material: Copper



Quality Guarantee  
Third Party Inspection  
3 Years Warranty  
Professional Team

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