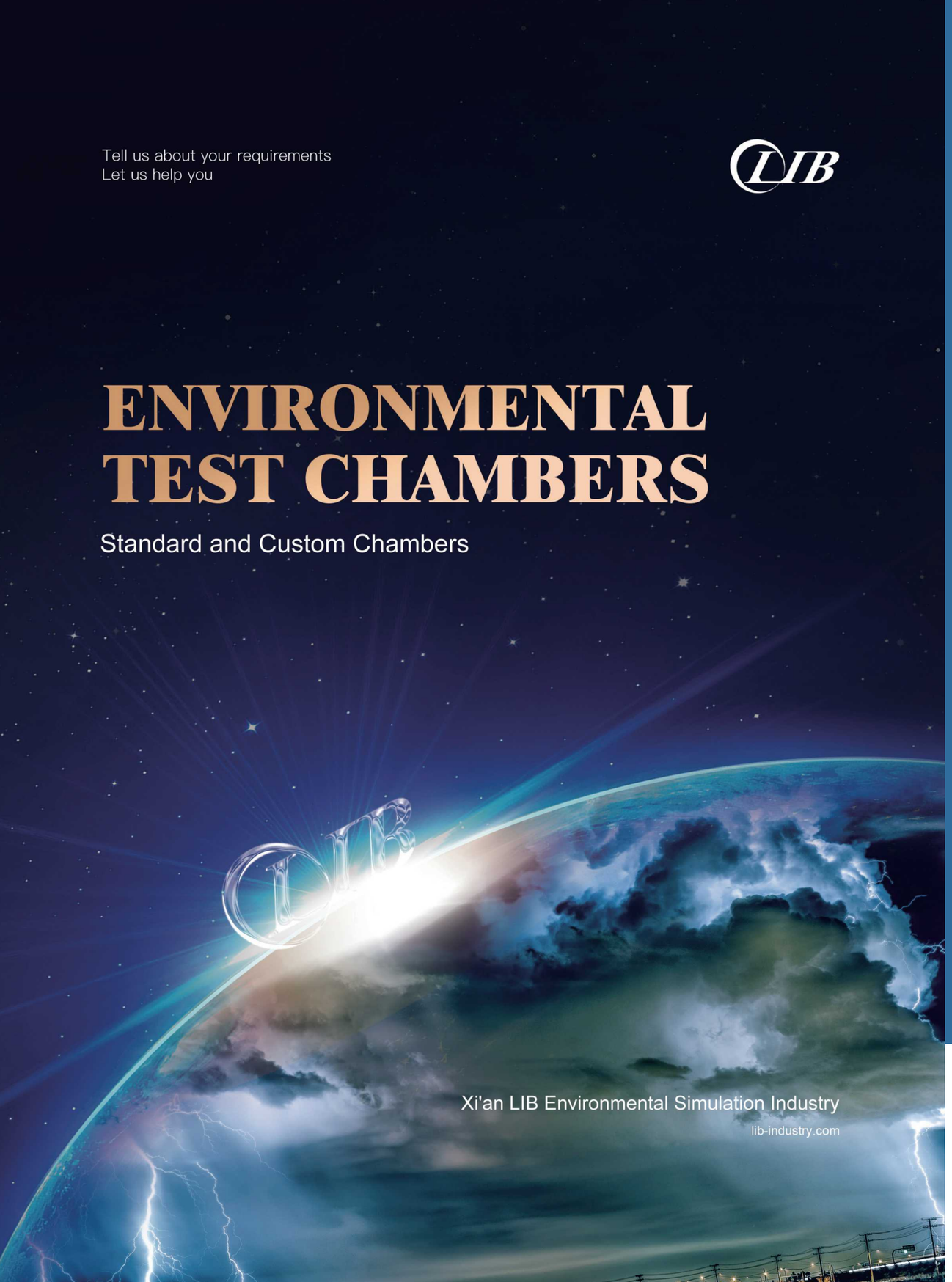
Tell us about your requirements
Let us help you

ENVIRONMENTAL TEST CHAMBERS

Standard and Custom Chambers



About Us

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. We are determined to promote "Made in China" to the world.

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. All LIB products have passed CE and ROHS certification, as well as other national certifications.

Our complete production line, from cutting, sheet metal, welding, coating, assembly, inspection to calibration, there are rigorously trained technicians working in the industry. The ISO9001: 2010 system certification ensures the efficiency and safety of the production process;

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.

Our market has spread to 58 countries around the world, and the market continues to expand. Local agents and service centers make it easier for customers to purchase and get services.

3 Years Warranty, Lifelong Follow-up Services. 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.

LIB Industry will continue to provide reliable testing equipment and solutions to help customers improve product reliability.

Contents

LIB Environmental Test Chambers are widely used in Automobile, Avionics, Defense, Electronics, Oil & Gas, Medicals and Telecommunications Industries.

ENVIRONMENTAL TEST CHAMBERS

Temperature Humidity Test Chamber

LIB TH Series Temperature Humidity Test Chambers are available in a variety of sizes to suit your needs. Different models allow you to choose the size and performance best suited for your test applications, as well as choose either a temperature only model or a temperature and humidity configuration.

This temperature humidity chambers come in two types including reach-in chambers and walk-in chambers. Extended choice of options fitted to your testing. You can select your chamber from the door, refrigeration system, controller, language and so much more. Provide temperature, climate, vibration, corrosion, altitude, pressure combined test.

Full Climate

Provide temperature, climate, vibration, corrosion, altitude, pressure combined test.

Standard and Custom Models

We can provide solutions for you, to make a standard test chamber or design a custom chamber for your need.

Optional Equipment

Temperature only chamber and calibration chamber are available.

Benchtop Environmental Chamber

This small environmental chamber achieves high performance to fulfill your temperature and humidity testing needs. The benchtops include 16 models available in two sizes 50L and 80L with a temperature range of -20°C, -40°C, or -60 °C to +150 °C for temperature tests, or humidity 20%(10%) to 98%RH for temperature & humidity tests. The noticeable advantages of the benchtops are small, desktop, small footprint, portable, stable performance and full function.

LIB small temperature humidity chamber provides a small footprint and maximize workspace. Designed to fit in small spaces in test laboratories, these benchtops test chambers are designed for various temperature or humidity tests on small products. In addition, the benchtop model with temperature change rate of 1K/min,2K/min, 5K/min, can meet requirement for your test applications.

Small and Affordable

The benchtop chamber is specially designed to meet the customer's needs of small space and small test specimens, and it also has a more competitive price.

Quick Ship

Popular models are in stock and can be shipped quickly within 3 days.

Fast Change Rate Thermal Cycle Chamber

LIB fast change rate thermal cycle chamber is designed for testing specimens under the rapid temperature change. LIB TR models meet the ESS (Environment Stress Screen) test. The temperature ramp rate is controllable at 5°C / 10°C / 15°C per minute.

Ranging size from 100L to 3000L and different models for your test. In addition, LIB supplies customized chambers according to special request, such as size, performance and configurations to meet requirement for your test applications.

Wide Temperature Range

Low Types: -20°C/-40°C/-60°C/-70°C/ to +150°C for choose.

Energy Saving

When the temperature needs to be stabilized again, the advanced PID control can effectively control the output value of the constant phase and the recovery phase.

Thermal Shock Test Chamber

LIB 2-zone hot cold thermal shock test chamber is available in small capacity and large capacity to meet different testing requirements. Test can be performed during thermal shock testing from -70 to +200°C.

The specimen is transferred from cold chamber to hot chamber by basket automatically. The basket slides vertically and smoothly through rails, to make the specimen expose to the two chambers.

TS series thermal shock chamber has two independently controlled hot and cold zones, the specimen automatic transferred between different temperature zones. Users can easily observe the product as it's transferred between different temperature zones through built-in viewing windows.

LIB 3TS series thermal shock test chamber is just one chamber for test room. It circulates cold and hot air through the pneumatic damper on the left and right sides. This design makes external size smaller, and the 3TS series thermal shock chambers can be pre-heated and pre-cooled to achieve faster temperature change.

Cryogenic Chamber

LIB cryogenic chamber employs a mechanical compressor to cool to -120°C, which replaces the traditional liquid nitrogen cooling method. The test chamber sizes are divided into 100L, 225L, 500L, 800L, 1000L for choose. The temperature test range is -120°C to 150°C. It can be applied to various field for test by simulating extreme natural environments, to detect product substitution and the stability of performance.

Mechanical Refrigeration

Cryogenic chamber employs triple refrigeration, using combined refrigerants and mechanical refrigeration to control the temperature at -120°C.

Vibration Chamber

LIB THV Series vibration chambers combine temperature, humidity and vibration environmental conditions, which consist of temperature humidity chamber and vibration shaker.

Combined high and low temperature, temperature/humidity and vibration system in one chamber. One-stop solutions for design, production, installation, commissioning and training.

Combined Test

Simulate up to 3 combined environmental conditions in one chamber, high and low Temperature, temperature/humidity and vibration system in one chamber.

Customized Chamber

We design custom systems that are capable of testing small items to large products.

Installation and Training

Customize the size, temperature, humidity and vibration table according to customer requirements. Provide one-stop solutions for design, production, installation, commissioning and training.

Industrial Oven

LIB designs and produces high temperature drying ovens at temperatures up to +250°C, +500°C, +800°C, +1000°C, +1200°C with small, medium and large volumes.

Drying ovens are available in various sizes and temperature ranges, including standard and custom oven. Quick shipping with 50L, 100L to 1000L standard models can allow customer to use timely.

Wide Temperature Ranges

The temperature of LIB ovens can be heating up to +250°C, +500°C, +800°C, + 1000°C, + 1200°C.

Ovens with different temperatures have completely different structures to maximize its functions.

Industry Vacuum Oven

LIB vacuum ovens are equipped with vacuum pump, vacuum ＜ 133pa. Temperature can be heating up to +250°C. More than 10 models available for choose.

Salt Spray Test Chamber

LIB basic salt spray chambers meet the requirements of basic and continuous salt spray tests, such as ASTM B117, ISO 9227 and similar international test standards, and can perform NSS, ASS and CASS test.

Provide a large selection of salt spray chambers to accommodate various types of product testing. Capacity available in 108L, 320L, 410L, 780L, 1000L, 1600L and more. More than 16 different models allow you to choose the size and performance best suited for your test application.

Corrosion-Resistant and Long-life Materials

Material is glass fiber reinforced plastics which has strong corrosion resistance, one-time forming, reinforced design, long service life and high temperature resistance.

Salt Solution Mixing System

The salt water stirring system is installed in the salt water tank, which can not only stir the salt water to maintain uniformity, but also heat the salt water to stabilize the PH.

Cyclic Salt Fog Corrosion Chamber (CCT Chamber)

Cyclic salt spray corrosion chamber exposes sample to a series of different environments in repetitive cycles that incorporate temperature, humidity and salt spray. Accelerated corrosion test methods include ASTM B117, ASTM G85, ISO9227, IEC60068-2-52, ISO7253 and many others.

CCT chambers are upgraded to programmable controller and Ethernet access. All models are automated, and can work continuously. Various models can meet different test requirements.

Combined Environmental Condition

Cyclic corrosion chambers, combining salt spray with temperature, humidity environmental conditions.

Easy Opening and Closing Cover

Pneumatically operate cover, easy opening and closing cover.

Salt Fog And SO_2 Corrosion Chamber

ASTM G85 Annex 4 (A4) is a corrosion test which introduces SO_2 gas directly into the salt spray chamber according to specified cycles. LIB salt fog and SO_2 corrosion chamber exposes sample to a series of different environment conditions that combining salt spray with temperature, humidity, SO_2 gas, drying, wetting and more.

Xenon Accelerated Weathering Test Chamber

LIB Xenon test chamber can simulate the damage caused by full-spectrum sunlight, temperature, humidity and rain. All models are automatically operated and run. Xenon chambers are easy to operate and install. With a variety of models and options, you can customize your xenon chamber to fit your testing needs.

The 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 and black panel temperature. Easy to mount the specimen with specially designed specimen holders.

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 Ethernet.

Customized Systems

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

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 components.

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. It can simulate the damage caused by UV light, temperature, humidity and rain. Model UV-SI-260 is widely used for weathering test.

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

Lamp Life Display

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

Customized Systems

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

Sand And Dust Test Chamber

LIB dust test chamber can be used to perform ingress protection tests in accordance with the test standards IEC60529 (IP5X / IP6X) and ISO 20653 (IP5KX / IP6KX).

With additional equipment, further standards can be fulfilled, such as MIL STD 810 and other standards.

Considering that the components are in different shapes and sizes, LIB manufactures different size and configuration of dust chambers, ranging from 400Ltier to 3000Liter in size, including standard and custom chambers. Its dust proof power connector in the test room can easily supply electricity to the specimen.

Dust Circulation System

Test chamber has vertical circulating airflow. The airflow can smoothly blow dust into the working room and form a dust blowing circulation system.

Easy to Power Up the Specimen

The workroom is equipped with a single-phase 16A internal power interface to power up the test specimen. The power-on time and cycle can be controlled by the controller.

Various Models Available

LIB designs and produces different size and configuration of dust chamber, with capacity of 800 liters, 1000 liters, 1500 liters, 2000 liters and larger volume based on various specimens.

MIL-STD- 810H Blowing Sand And Dust Test Chamber

LIB MIL STD 810 sand and dust chamber is designed specifically to simulate desert environments for the testing of military equipment and devices. The chamber can be customized according to the specifications requested by the customer.

Automatically filling sand or dust, automatically distributing sand or dust over time and automatic temperature & humidity control. All these parameters can be programmed using the programmable colour touch screen controller. The interior material of the chamber is built with SUS304 stainless steel treated for erosion resistance and high temperature.

Customized Chamber

We design custom systems that are capable of testing small items to large products.

Automated Process Control

Automatically filling sand or dust, automatically distributing sand or dust over time .

Water Spray Test Chamber

LIB provides a large selection of water spray chambers to test the IPX1, X2, IPX3 and IPX4 protection degree against rain and sprays according to IEC 60529, MIL-STD 810 and other international standards.

The water spray test chamber is built with water re-circulation system that reduces water use and a series of water pipes. Incorporated rotating turntable can promote even spray of water over the surface of the products under testing. Automatic water supply ensures adequate supply of water and automatic testing. Its waterproof power connector in the test room can easily supply electricity to the specimen.

Save Water

Water re-circulation system that reduces water use.

Water Purification System

LIB specially designs a set of automatic water inlet and water filtration system to filter impurities within 0.03mm particles, which has ensured the smoothness of the spray system.

Build a IP Lab for You

Build a new IP laboratory for you according to your requirements. Tell us about your requirements, let us help you.

IPX5 IPX6 Water Jetting Test Chamber

IPX5 IPX6 Water Jetting Test Chamber is applied to test the IPX5 and IPX6 protection degree against water jetting according to IEC 60529.

The water spray test chamber is built with water re-circulation system that reduces water use and a series of water pipes. Incorporated rotating turntable can promote even spray of water over the surface of the products under testing. Automatic water supply ensures adequate supply of water and automatic testing. Its waterproof power connector in the test room can easily supply electricity to the specimen.

Save Water

Water re-circulation system that reduces water use.

IPX7 IPX8 Water Immersion Tank

IPX7 IPX8 water immersion tank is used for water immersion testing of specimen under IPX7 and IPX8 ratings.

In addition to standard immersion tank, customized equipment can be supplied according to size and pressure, e.g. up to 100m water pressure.

Fixing Device for Safety

The tank is of cylindrical design, and the bottom must be supported by a tripod. Designed a Z-shaped foot with three M8 holes, which has good grip and requires user to fix the equipment with screws to ensure safety.

Sample Holder

We have designed a height-adjustable sample holder to prevent the sample from floating during the immersion test.

Pressure Limiting Protection

An independent pressure limiting device is specially designed to ensure effective control of the pressure in the tank.

IPX9K High Pressure & Tem-Perature Water Spray Chamber

IPX9K high pressure and high temperature water spray test chamber is widely used in the electronics, military and consumer product industries. IPX9K is the highest rating currently available for water ingress protection in accordance with IEC 60529 and ISO 20653.

Products under test is subjected to high pressure (8000 – 10000 Kpa), high temperature (+80°C) and water jets at a flow rate of 14 – 16L/min.

Water Jet in Different Angles

The samples can be placed at four angles (0 °, 30 °, 60 °, 90 °) for high temperature and high pressure water jetting test.

Fixing Device for Test Specimen

When high-pressure water is sprayed, the test specimen on the turntable will be washed away from the turntable. We specially designed M6 screw holes with a spacing of 5cm and screws to fix the specimens.

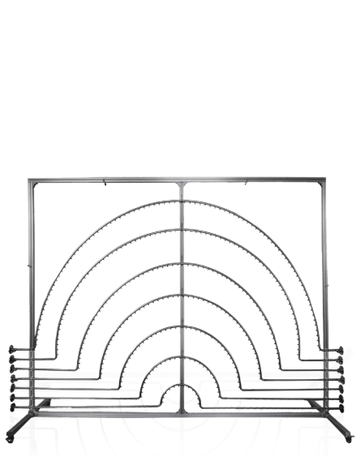
Optional Equipment

Optional equipment is available so that further standards and protection classes can be complied with, including ISO 20653, IPX1K to IPX6K, IPX1 to X8, SAE J 575, JIS D 0203, GMW16001, MIL STD 810.

Whole Set of IP Test Equipment -No Housing Type

This IP Test Equipment is mainly suitable for water ingress testing of various specimens in the laboratory. A complete set of equipment can perform all tests from IPX1 to IPX6.

This test equipment is adjustable and can test a variety of products without being limited by size. Comprehensive testing and affordable price make this device very popular.



JIS D 0203 Rain And Spray Test Chamber

LIB rain and spray test chamber is formulated in accordance with JIS D 0203 standard to test the waterproof performance of the product. The scope of this code testing specifies the methods of moisture resistance and waterproofness for automotive parts.

The workroom is equipped with 40 spray nozzles and 2 rain nozzles, and the spray room is equipped with water circulation system to reduce water consumption and effectively save water resources.

Rain Test and Spray Test

40 spray nozzles and 2 rain nozzles for water resistance test.

Save Water

Water re-circulation system that reduces water use.

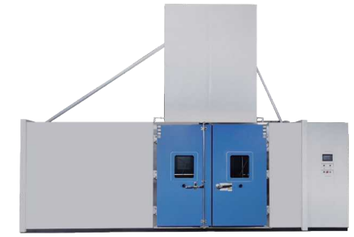
Water Purification System

LIB specially designed a set of automatic water inlet and water filtration system to filter impurities within 0.03mm particles, which has ensured the smoothness of the spray system.

MIL-STD- 810H Rain Chamber

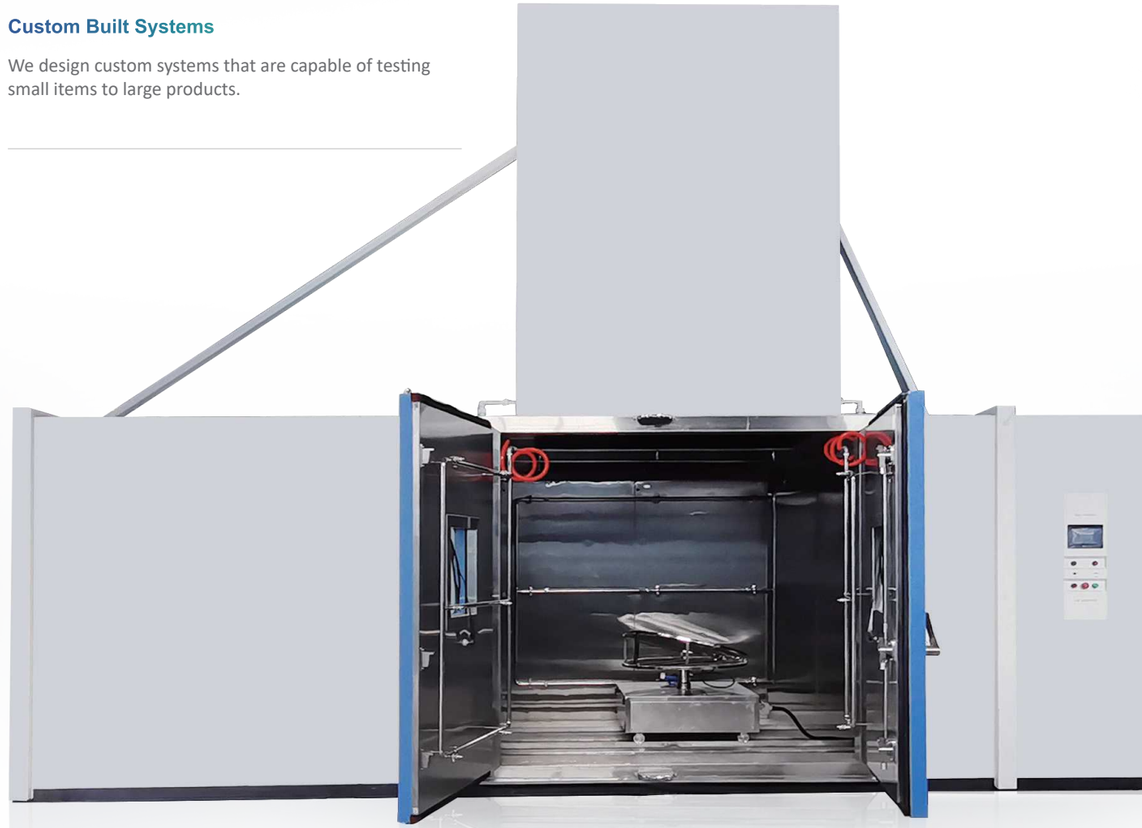
LIB MIL-STD 810 rain test chamber is used for evaluating the resistance of a system to water and rain in accordance with MIL-STD-810h. This standard is specially prepared for military applications, but it is also often used for commercial products.

The chamber reproduces conditions of rain with wind up to 18m/s according to the Procedure I, as well as conditions of rain and air according to the Procedure III. Size can be customized according to the test item size.



Custom Built Systems

We design custom systems that are capable of testing small items to large products.



Ozone Test Chamber

Ozone resistance test chambers test elastomers (rubber) in the condition of ozone exposure to simulate and measure the aging of rubber by means of ozone within a few days.

Structure: Built with dynamic and static sample holders, cooling system, humidity system, air circulation, ozone generating unit, ozone exhaust device and control system.

All models of ozone test chamber are upgraded to programmable controller and Ethernet access that provide simple operation and control. Ozone chambers are available in a variety of sizes to suit your needs.

Automatic Control and Supply Ozone Gas

Use silent discharge type ozone generator, gas automatically generated

It has the features of low noise and high purity.

Safe Ozone Treatment System

The ozone exhaust device is equipped with an activated carbon to absorb ozone to make workplace clean and safe.

Exhaust the gas after the test, automatically controlled on controller.

SO_2 Noxious Gas Test Chamber

SO_2 Noxious Gas Test Chambers reproduce damages by temperature, relative humidity and noxious gas corrosion to material, components and constructions.

This noxious gas chamber can be used for single gas tests and mixed gas NO_2, CO_2, H_2S and SO_2 tests methods in accordance with IEC 60068-2-42, IEC60068-2-60 and other standards.

SO_2 corrosion chambers are available in a variety of sizes to suit your needs.

Anti-Corrosion Treatment of Workroom Material

A layer of glass fiber reinforced plastic is attached to the stainless steel surface of the workroom, which not only prevents corrosion and but also enhances the robustness.

The SO_2 exhaust device is equipped with an NAOH solution tank to dilute SO_2 to make workplace clean and safe.

Walk-in Test Chambers

LIB Industry designs and manufactures walk in chambers including integrated type and disassembling type.

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, UV, dust, rain and vibration.

This walk-in environmental chamber provides temperature and humidity testing for large components and equipment. There are many standard and custom walk-in, drive-in chambers for your needs.

Accessaries And Spares

Spray Nozzle for Salt Spray Corrosion Chamber

This spray nozzle is used in the salt spray test chamber and is made of quartz glass. It's easy to clean and resistant to high temperatures, corrosion, and clogging. Spray pressure is 83kpa according to the standard.

Salt for salt spray testing

The salt is mainly used for salt spray corrosion test, and salt is required when preparing salt solution, the purity is 99.5%.

Talcum Powder For IP Dust Test Chamber

The talcum powder is applied in sand dust testing, the partical size is 45μm.

Xenon Arc Lamp for Xenon Chamber

The xenon arc lamp is the light source installed on the xenon weathering chamber. The lamp is 4500w (6500w) water-cooled xenon arc lamp.

We suggest that replace the xenon lamp every 1600 hours.

UVA-340, UVB-313 Fluorescent UV lamps for UV Chamber

UV weathering resistance test chamber uses UVA-340, UVB-313 fluorescent UV lamps. Model UV-SI-260 is equipped with 8 UV lamps.

We suggest that replace the UV lamp every 1200 hours.

Turnkey Solution

Tell us about your requirements, let us help you

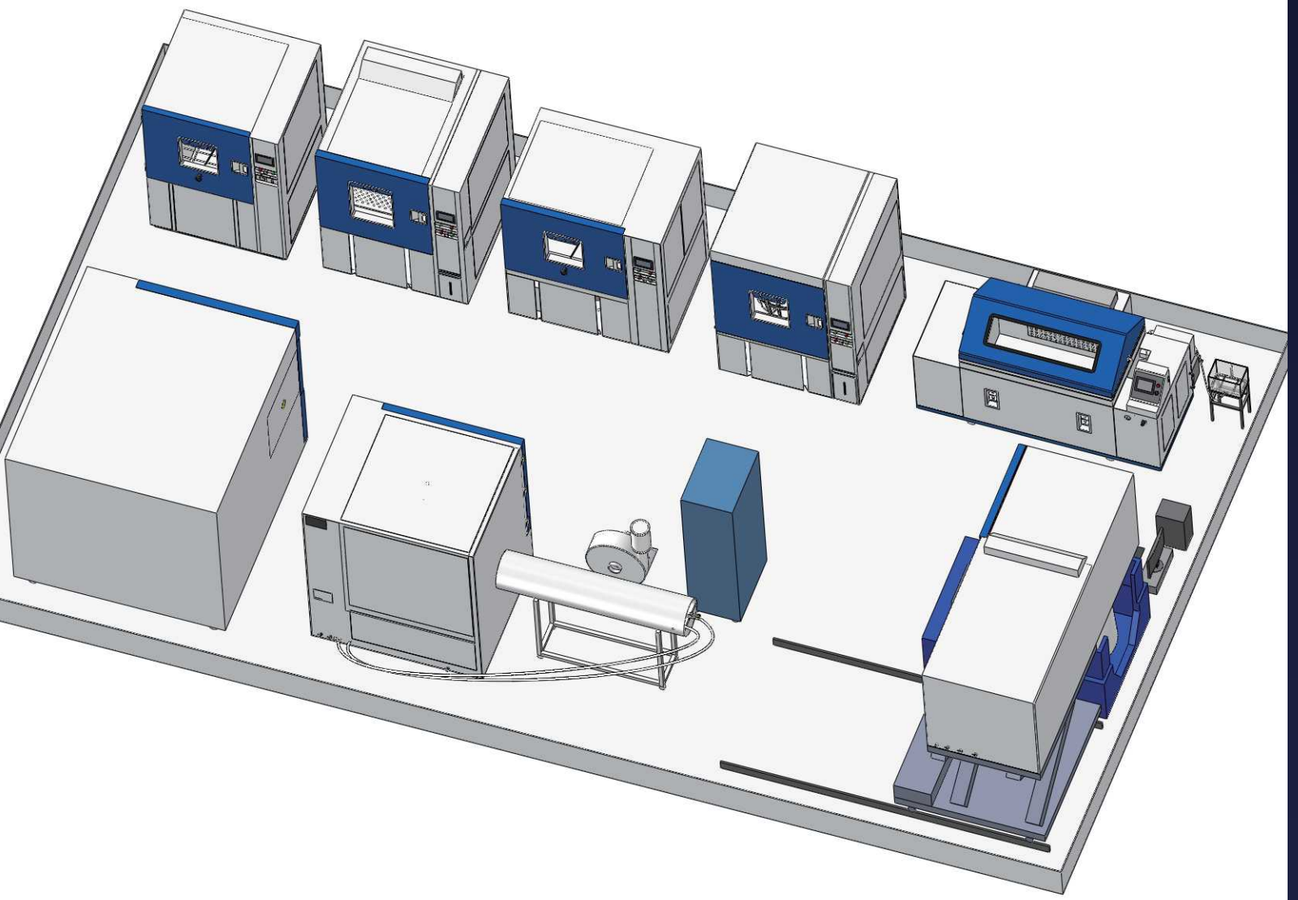
We provide solutions for you, to make a standard test chamber or design a custom chamber

Arrange the production of test chambers according to parameters

Inspection and issue test report

Packing and ship to your laboratory

On site installation, commissioning and training



Standard and Custom Chambers
36 Month Long Warranty
Turn-Key Service
Provide Test Chamber, Provide Test Solution

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