

□ Temperature Humidity Vibration Chamber



THV-1000

TEMPERATURE
-50°C ~ +150°C

HUMIDITY
30%~98%RH

VIBRATION
Vertical and Horizontal Excitation

【Technical Parameter】

Model		THV-1000	
Internal Dimension (mm)		1000*1000*1000	
Overall Dimension (mm)		1800*4600*2600	
Interior Volume		1000L	
Parameter	Temperature Range	-50℃ ~ +150℃	
	Temperature Fluctuation	± 0.5℃	
	Temperature Deviation	± 2.0℃	
	Humidity Range	30% ~ 98% RH	
	Humidity Deviation	± 2.5% RH	
	Cooling Rate	5℃ / min	
	Heating Rate	5℃ / min	
Structure	Cooling	Cooling system	Mechanical compression refrigeration system
		Refrigerating unit	French TECUMSEH compressor
		Refrigerant	R404A, R23
	Heating Element	Nichrome heater	
	Controller	Programmable color LCD touch screen controller	
		Ethernet connection, PC Link	
	Humidity	Water supply system	Automatic water supply
		Water supply system	Water purification system
		Humidifier	External isolation, stainless steel surface evaporation humidifier
		Dehumidification	Evaporator
	Vibration	Dynamic diameter	∅ 240mm
		horizontal sliding table	600*600 mm
		Power Amplifier	Digital power amplifier
		Head Expander	600*600 mm
		Blower	4Kw blower, including muffler.
		Max load	500kgs
	Sensor	Temperature Sensor	PTR Platinum Resistance PT100Ω/MV A-class, accuracy 0.001℃
		Humidity Sensor	Dry and wet bulb sensor
	Build-in Water Tank(mm)	270*300*450	
	View Window Size(mm)	330*370	
Air Circulation	Centrifugal wind fan		
Safety Device	Humidifier dry-combustion protection; over-temperature protection; over-current protection; Refrigerant high-pressure protection; Water shortage protection; Earth leakage protection		
Material	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	
Standard Configuration	Cable hole with plug; 2 shelves		
Power Supply	380V 50Hz		
Maximum Noise	65 dBA		
Environmental Conditional	5℃~+35℃ ≤85% RH		



1. Workroom

The internal material is 304 stainless steel, mirror surface, rust-proof, high temperature and corrosion resistance; Nice ruggedness and long life. The sample holder is adjustable to meet the needs of different tests



4. Power Amplifier for Vibration

Digital power amplifier with sine pulse width modulation technology, liquid crystal display.



7. Rail and Lift Support

Combining a rail support for horizontal move and a lift support for vertical move.



8. Test chamber Blind Plate

The test chamber is equipped with a blind plate, which is used as a movable bottom plate for temperature/ humidity tests.



2. Vibration Shaker

Combined both vertical and horizontal axis. Max load is 500kgs.



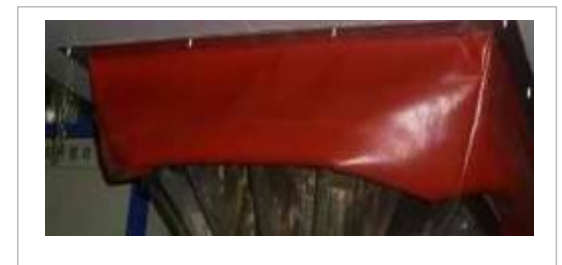
5. Head Expander

The extended table provides a larger installation table for vertical testing than the moving coil. The extended table is made of lighter magnesium aluminum alloy material, which has a high strength-to-weight ratio.



9. Silicone Cloth

The sealing material between the vibrating table and the test box is made of silicone cloth with good high and low temperature resistance



3. Vibration Controller

Hardware: 2 channel input, 1 channel output. Including DELL desktop computer; HP color printer; Software functions: sine frequency sweep, random, typical shock, resonance search and dwell.



6. Blower

4Kw blower, including muffler.



Structures

Temperature Humidity Vibration Chamber

10. Controller for Test Chamber

PID programmable color touch screen controller, network connection computer.
 Can set 120 programs 20 segment.
 LIB also can preset program into the controller based on user testing requirements.
 The set system language is English for standard.



11. Water Re-circulation

Water purifier: mainly purification from water source to water tank.
 The filter element is suggested to be replaced once a year.
 Water re-circulation system that reduced water use and a series of water pipes.



12. Automatic Water Inlet

Automatic control of the water intake of equipment, the customer can be directly connected to the laboratory faucet, so as to achieve automated testing;
 Automatic inlet diameter 1/2 inch (13.5MM);
 High and low water level alarm, water shortage lights and sound.
 Standard 2 meter drain pipe.



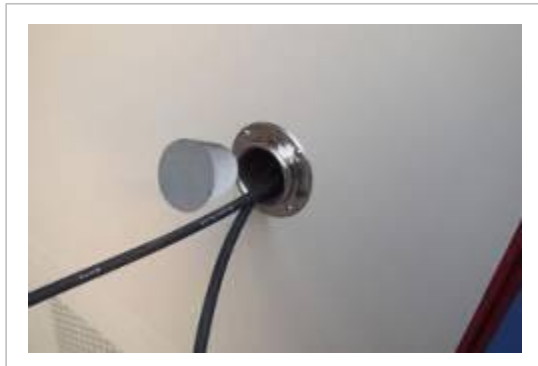
13. Viewing Window

Double layer insulating glass 8cm thick, made of tempered glass.
 The conductive film is located on the interior glass to prevent window frosting, built-in LED light for the work room lighting ;can clearly observe samples.



14.Cable Hole

A standard test hole, located at the left side of the work room, is provided with a sleeve inside to prevent moisture from entering the insulation layer. Equipped with flange.
 The standard inner hole diameter is 50mm.
 Soft silicone plug seal; Metal enclosure closed, beautiful designed.



15.Castor

Install 4 castors for ease moving, and with brakes function.
 Caster height adjustable.



16.Insulation

10cm thick polyurethane foam and insulation cotton;
 Better insulation performance, degradation resistance, environmental protection, noise reduction.



17. Wiring System

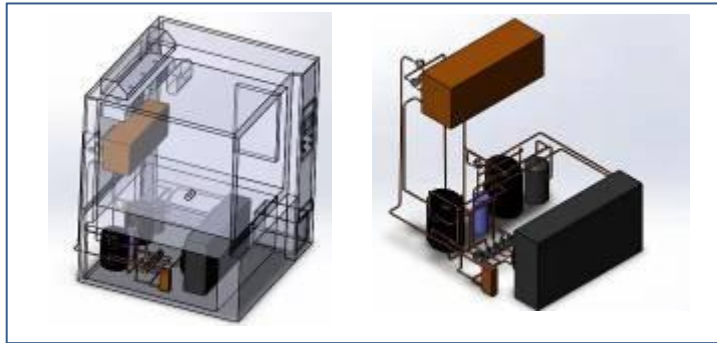
Voltage 380V 50Hz 3 phase.
 L1, L2, L3, PE, N, grounding protection.
 Standard 2m long cable.

18.Certificacates

10cm thick polyurethane foam and insulation cotton;
 Better insulation performance, degradation resistance, environmental protection, noise reduction.



Core Function



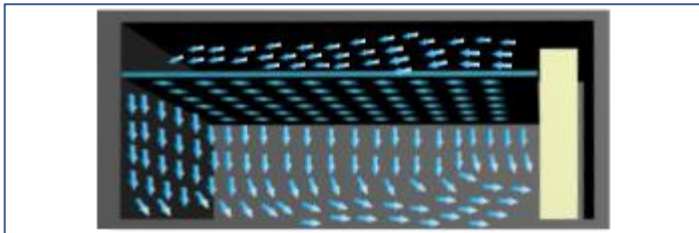
Cooling System

After the liquid refrigerant absorbs the heat of the cooled object in the evaporator, it is vaporized into low-temperature and low-pressure steam, sucked by the compressor, compressed into high-pressure high-temperature steam, discharged into the condenser, and radiated to the cooling medium in the condenser, condensed into a high-pressure liquid, throttling through a throttle valve into a low-pressure low-temperature refrigerant, and again entering the evaporator to absorb heat and vaporize, to achieve the purpose of cycle refrigeration. In this way, the refrigerant completes a refrigeration cycle through four basic processes of evaporation, compression, condensation, and throttling in the system.



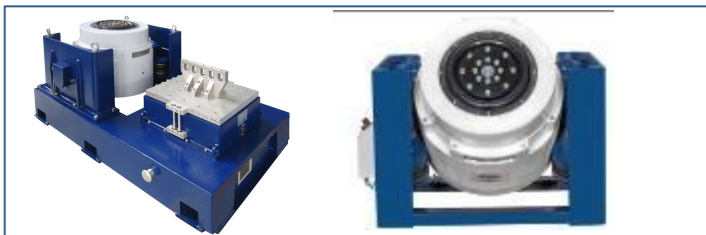
Humidity System

When the current humidity is less than the set point humidity, the equipment is automatically humidified. The humidification of is automatically heated by the humidification tank. When the water is heated, steam is generated, and then the steam is injected into the working room to increase the test humidity.



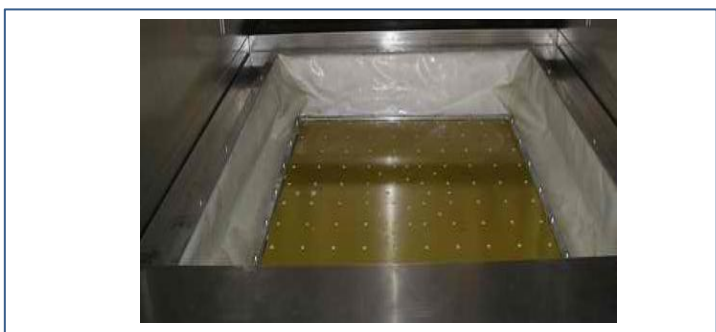
Air Circulation

The centrifugal fan is installed at the rear of the chamber body, and the air is uniformly distributed through the air outlet. Air circulation adopts air outlet at top and air return at bottom, and the wind speed and pressure are in compliance with the test standard, and the temperature is stabilized at the moment of switching. The high-quality centrifugal fan is used to strongly supply air circulation, making the temperature distribution in the test area uniform.



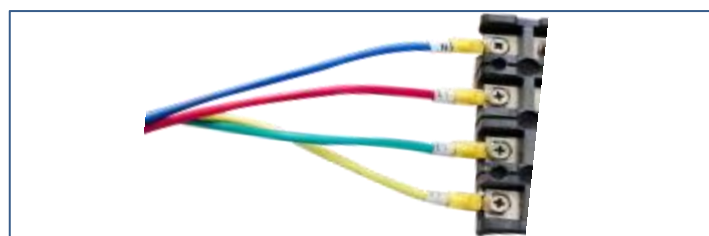
Vibration System

Combined both vertical and horizontal axis. The electric vibration table is equipped with a horizontal sliding table to realize three-way vibration test. Utilizing the turbine-worm or sprocket rotation system, the vibrating table body can be easily connected to the horizontal sliding table. The mechanical limit device can ensure the connection between the horizontal sliding table and the vibration table.



Chamber and Shaker Connection

It is directly connected with the horizontal sliding table during horizontal vibration. For example, when doing a comprehensive test of vertical vibration, an extended table must be installed. The equipped test chamber base is mainly used for the three-station test of horizontal vibration, vertical vibration and no vibration;



Wiring System

Voltage 380V 50Hz 3 phase.
L1, L2, L3, PE, N, grounding protection.
Standard 2m long cable,

Over Temperature Protection Water Shortage Protection	Over Current Protection Earth Leakage Protection Phase Sequence Protection	Humidifier Dry Combustion Protection Refrigerant High Pressure Protection
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Protection System

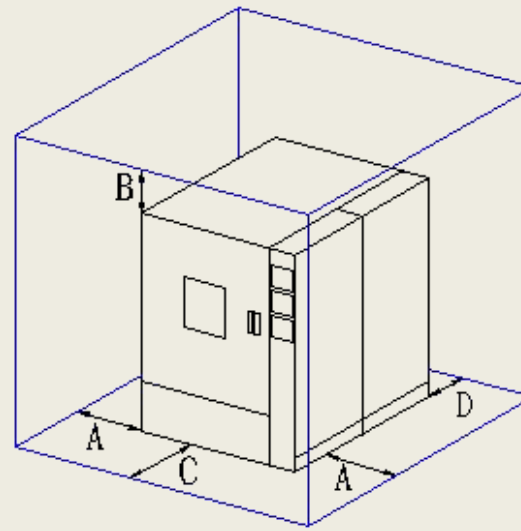
Install Condition

Environment Conditions

Temperature: +5°C ~ +35°C
 Relative humidity: ≤85%;
 Pressure: 86 KPa—106 KPa

Space Conditions

A: ≥60cm
 B: ≥60cm
 C: ≥ 80cm
 D: ≥ 80cm



***Safety Instruction:** 1. Prohibited to test explosive, inflammable and high corrosive substance
 2. Chemical exposure to the equipment is prohibited
 3. Equipment must be safety on the ground to avoid electrostatic induction

Packaging



First, seal chamber with waterproof plastic film. Protect chamber from seawater corrosion.
 Second, buffer foam is placed in the four corners of the chamber. It is used for fixing equipment to prevent shaking and damaging chamber during transportation.



Plywood: standard wood export packaging. The wooden box is fixed by sheet metal to prevent damage during transportation.

Gross weight: 600kgs~
 Package size: 2100*1400*2300 mm

Warranty Condition

Our company will repair the product, if the product, the material of the parts, the design and manufacturing of the products raised hardware problems caused by product itself rather than human error within three years warranty period since the date of dispatching by the customer.

Our company repairs the products, but will collect the basic costs of the spare parts after the warranty period, but service is free always.

Shipping



Material: Export standard wooden box

*Can be used for Sea, Air, Railway, Truck and multimodal transport.

Warranty & Service

- 3 Years Warranty, Lifelong Follow-up Services

Professional After-sales Team

If you have any questions during operation, we will supply solution to you with 24 hours.

How to Service

1. At first, our test chambers are produced based on 20 years product lifetime.

Normally once test chambers have problems, we judge the problems, and send spare parts to our customers, and teach them how to change new parts on by email or video, all spare parts and shipping cost (by DHL, TNT, and FedEx) paid by LIB.

2. If the customer needs our engineer on-site service, they only need pay the ticket accommodation to our Engineers, service is for free.

3. If products still can't use after our engineers repair, we will produce a new test chamber (same as the old one) to our customers with no charge.

PROVIDING TEST SOLUTION, PROVIDING TEST EQUIPMENT

Xi'an LIB Environmental Simulation Industry is a lead provider of environmental test chamber in China, with its own brand (LIB) design, production, sales and service since 2009. We continually update technology and develop new products for customer's needs.

Our main products included temperature and climate test chambers, corrosion chambers, weathering testers, IP dust and rain chambers, ozone test chamber, noxious gas SO2 H2S chamber, walk-in chambers. We provide test chamber, we provide test solution. Standard and customized products to meet different customer needs.

By 2018, global market has spread to 53 countries to USA, Canada, Mexico, Brazil, Peru, Russia, German, UK, France, Finland, Netherlands, Poland, Switzerland, Thailand, Philippines, Singapore, Malaysia, Australian, South Africa etc. and the market continues to expand.

At present 7 Tier-one agents around the world provide LIB products, installation and maintenance service for customers. Make things simple and convenient.

Contact Us

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LIB Industry®

LIB became a registered trademark of our company since 2017 year.

PARTNER



CE ROHS

CERTIFICATE OF CONFORMITY



Certificate No.: BKC-19052305246C

Certificate of Conformity

Applicant : Xi'an LIB environmental simulation industry
No.5, Zhangba First Street, Xi'an High-Tech Area, Shaanxi Province, P.R.China 710065

Manufacturer : Xi'an LIB environmental simulation industry
No.5, Zhangba First Street, Xi'an High-Tech Area, Shaanxi Province, P.R.China 710065

Trademark : LIB

Product : DUST TEST CHAMBER

MIN : DI-1050
DI-800, DI-1500, DI-2000, DIM-500, DIM-1000, DIM-1500.

Test Standard : EN ISO 12100:2010
EN 60204-1:2000+A1:2009+AC:2010


The certificate of conformity is based on an evaluation of a sample of the above mentioned products. It does not imply an assessment of the whole production. It is possible to use CE marking to demonstrate the compliance with this MD Directive 2006/42/EC and LVD Directive 2014/35/EU. It is only valid in connection with the test report number: BKC-19052305246S.





Shenzhen BKC Testing Co., Ltd.
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E-mail: bkc@lib-lab.com Certificate Search: <http://www.bkc-lib.com>

CERTIFICATE OF CONFORMITY



Certificate No.: BKC-19052305247R

Certificate of Conformity

Applicant : Xi'an LIB environmental simulation industry
No.5, Zhangba First Street, Xi'an High-Tech Area, Shaanxi Province, P.R.China 710065

Manufacturer : Xi'an LIB environmental simulation industry
No.5, Zhangba First Street, Xi'an High-Tech Area, Shaanxi Province, P.R.China 710065




Trademark : LIB

Product : DUST TEST CHAMBER

MIN : DI-1050
DI-800, DI-1500, DI-2000, DIM-500, DIM-1000, DIM-1500.

Test Standard : IEC 62321-4:2013+A1:2017
IEC 62321-5:2013
IEC 62321-6:2015
IEC 62321-7-1:2015
IEC 62321-7-2:2017
IEC 62321-8:2017

The product described above has been consolidated by us and found in compliance with the council RoHS 2.0 Directive 2011/65/EU Annex II (EU) 2015/863 as last amended by Directive (EU) 2017/2012. It is only valid in connection with the test report number: BKC-19052305247R.

Shenzhen BKC Testing Co., Ltd.
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