Industrial Drying Oven

Model: O-100

- **TEMPERATURE**

  Ambient ~+1000℃

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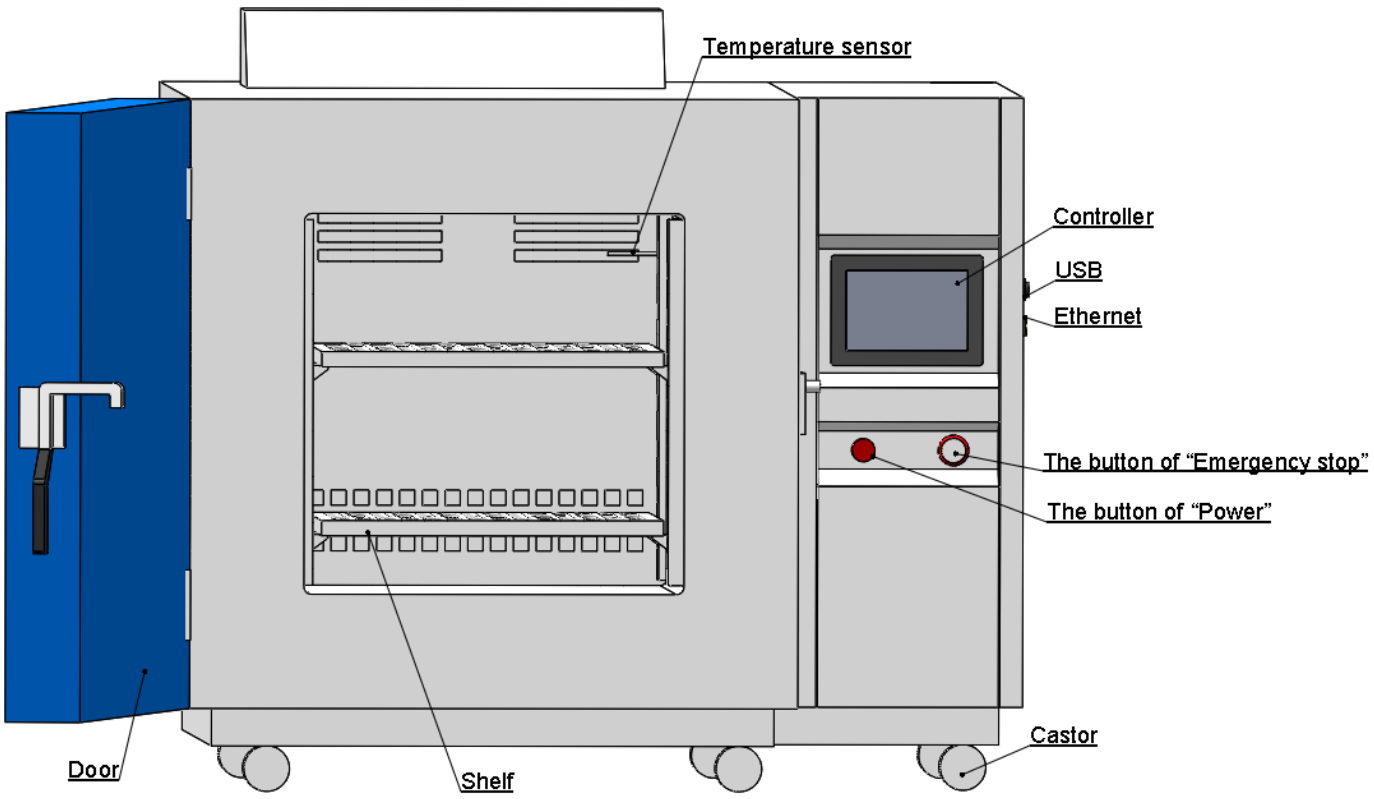
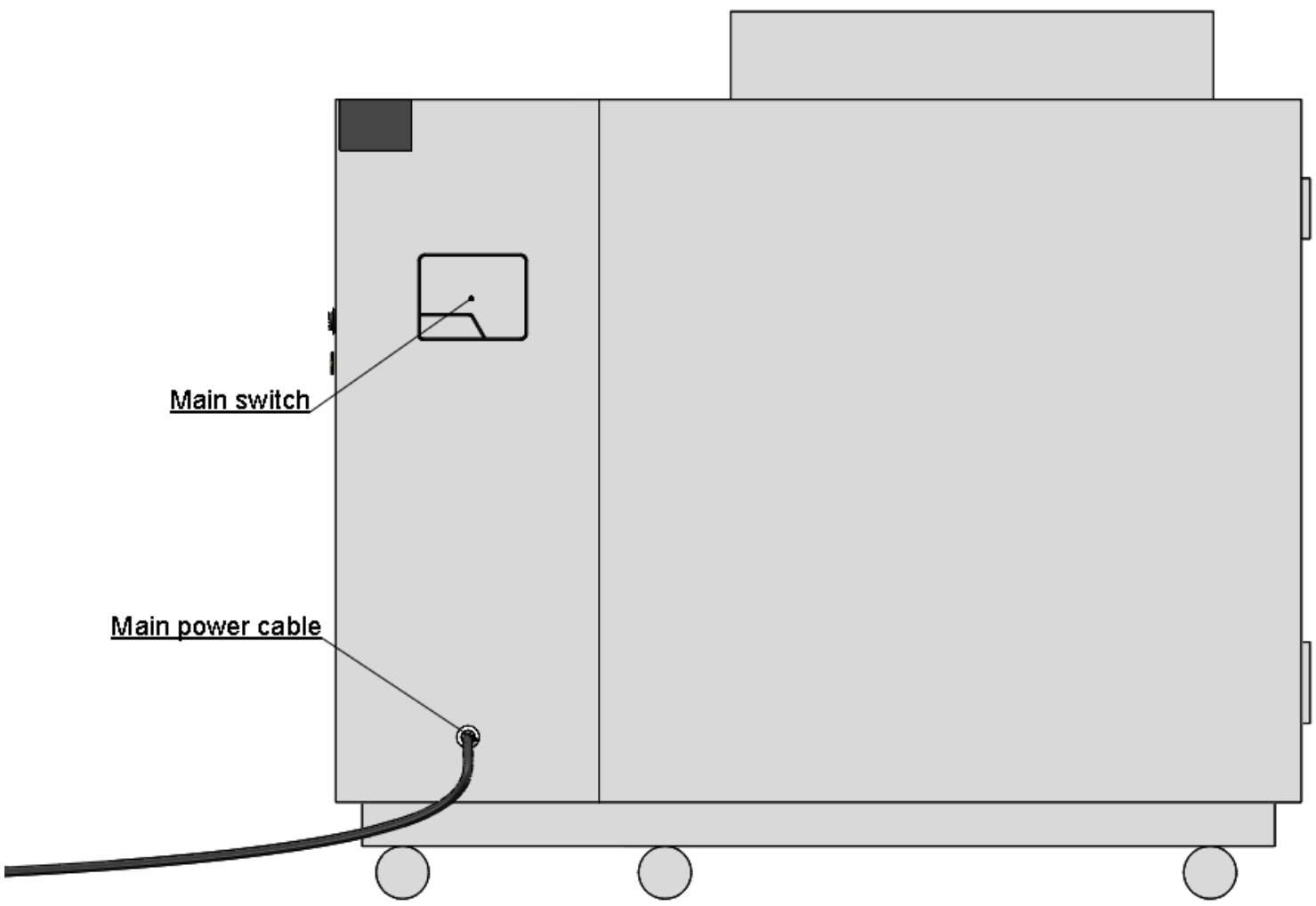
1.Diagram


Temperature sensor
Controller
USB
Ethernet
The button of “Emergency stop”
The button of “Power”
Castor
Door
Shelf

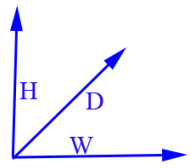

Main switch
Main power cable

2.Test Requirements

- Industrial Drying Oven
- 400*500*500mm
- Ambient ~ +1000 degree C

3.Technical Parameters

3.1【Technical Parameter】



Model		O-100C	O-225C	O-500C	O-800C	O-1000C
Internal Dimension (mm)		400*500*500	500*600*750	700*800*900	800*1000*1000	1000*1000*1000
Overall Dimension (mm)		1000*1400*1200	1100*1500*1450	1300*1700*1600	1400*1900*1700	1600*1900*1700
Interior Volume		100L	225L	500L	800L	1000L
Parameter	**Temperature Range**	**Ambient ～+1000 ℃**				
	Temperature Fluctuation	± 2.0 ℃				
	Temperature Deviation	± 2.0 ℃				
	Heating Rate	Within 90 minutes reach to 1000 ℃				
	Heating Element	Mosi2 heater				
	Controller	PID color LCD touch screen controller				
		Ethernet connection, USB port				
	Temperature Sensor	PTR Platinum Resistance PT100Ω/MV A-class, accuracy 0.001℃				
	Heat elimination fan	The equipment is equipped with heat elimination fan, if no ventilation is needed, the vent can be automatically closed				
	Safety Device	Over-temperature Protection; Over-current Protection; Phase Sequence Protection; Earth leakage Protection				
Material	Exterior Material	1.0 mm Thickness of Steel Plate with protective coating				
	Interior Material	3.5mm Thickness of 310S Steel Plate				
	Thermal Insulation	300mm Thickness of high-alumina refractory				
	Furnace Material	Aluminum metasilicate material, temperature resistance ≥1200℃				
Standard Configuration		2 shelves				
Power Supply		220V 60Hz 1Phase				
Maximum Noise		65 dBA				
Environmental Conditional		5℃～+35 ℃ ≤85% RH				

3.2【Construction】

3.2.1 Workroom

- The internal material is 310S stainless steel with thickness of 3.5mm.
- Furnace Material is aluminum metasilicate material, temperature resistance ⩾1200℃
- Thermal Insulation is 300mm Thickness of high-alumina refractory
- PT-100 Class A sensor, real-time accurate detection and display of temperature changes at 0.001 degrees.

3.2.2 Heat elimination fan

- The equipment is equipped with heat elimination fan, if no ventilation is needed, the vent can be automatically closed

3.2.3 Door

- The door is in the front of furnace, which is sealed with ceramic fiber sealing strip.

3.2.4 Controller

- PID programmable color touch screen controller
- Ethernet for PC link
- USB for download the test data
- Can edit 120 programs 100 segment.
- LIB also can preset program into the controller based on user testing requirements.
- The set system language is English for standard.

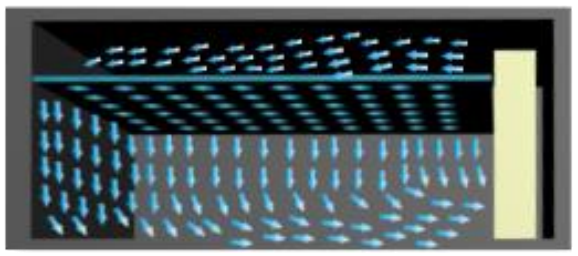
3.2.5 Castor

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

3.3 【Core Function】

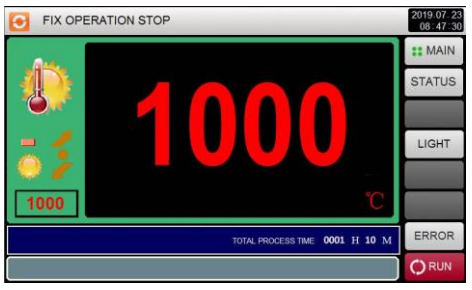
3.3.1 Air Circulation

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.



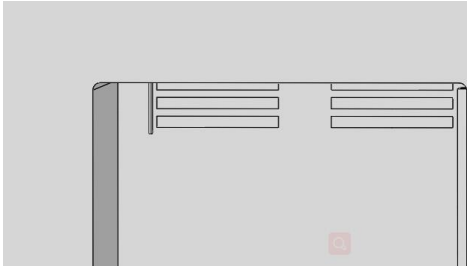
3.3.2 Control System

The PID controller as the main control unit to command, operate, detect and redistribute the various components of the equipment to achieve maximum effective use.
The temperature control adopts P.I.D. S.S.R. system synchronous coordinated control, which can improve the stability and life of the control components and interface.
Screen display function: LCD display, which can display test conditions (including temperature section, cycle number, running time and remaining time, etc.).



3.3.3 Temperature Sensor

PT-100 Class A sensor, real-time accurate detection and display of temperature changes at 0.001 degrees.



3.3.4 Protection System

Over Temperature Protection
Over Current Protection
Earth Leakage Protection
Phase Sequence Protection
Refrigerant High Pressure Protection

4.Accessory

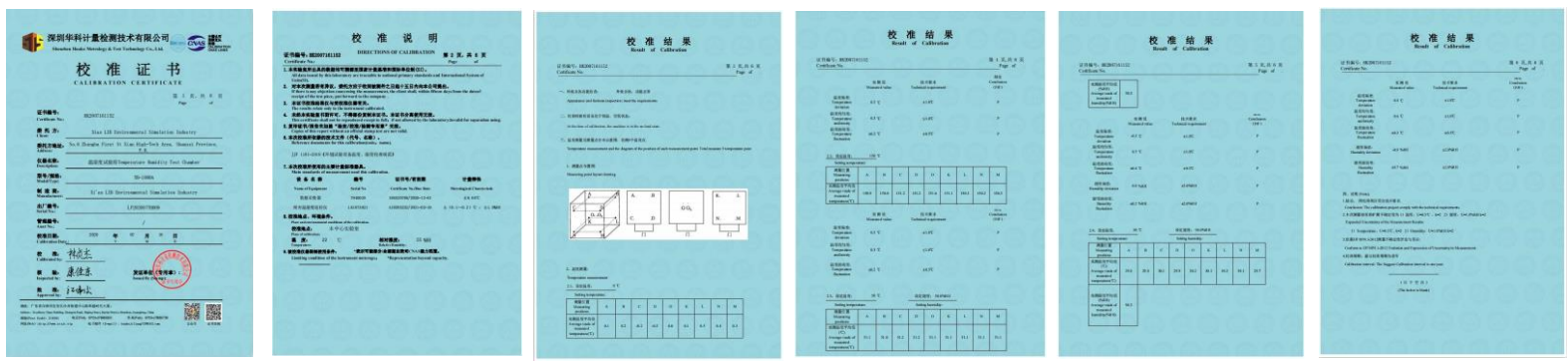
① Relay - 2 pc;
② PT-100 temperature sensor - 2 pc ;
③ Heating tube - 1 pc

5.Calibration

- Before delivery, LIB engineer will calibrate this chamber and issue “Calibration Report”;

- Calibration Items

✓ Workroom temperature



6.Packing

- 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.

Appendix

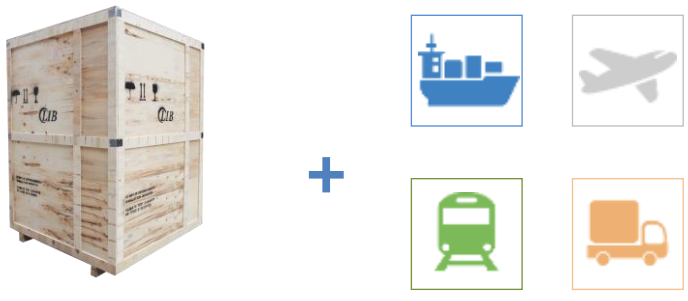
Documentation attached with the packing:

1. 1 set of Oven;
2. Warranty Card;
3. Certificate of Qualification;
4. Calibration Report, issued by LIB (manufacturer);
5. Operation Manual;
6. Circuit diagram

7.Shipping

❖ **Material**：Export standard wooden box

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



Port of departure: Shanghai, China

8.Installation

- Before delivery, LIB team will finish all installation and commissioning works. When you receive, you can use it directly.

- **Environment Conditions**

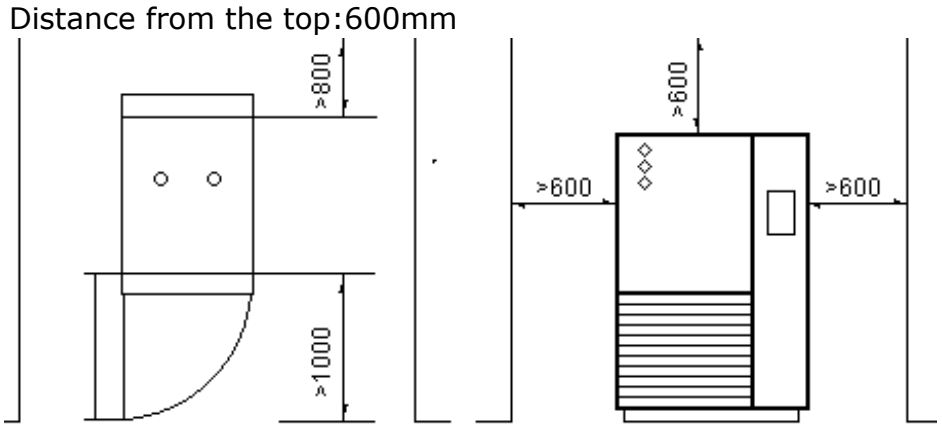
✧ Temperature: +5°C ~ +35°C
✧ Relative humidity: ≤85%;
✧ Pressure: 86 KPa—106 KPa

- **Safety Instruction**

✧ Prohibited to test explosive, inflammable and high corrosive substance
✧ Chemical exposure to the equipment is prohibited
✧ Equipment must be safety on the ground to avoid electrostatic induction

- **Space Requirements**

✧ Door: larger than width and height of the equipment, ensure the goods can into the room successfully
✧ Distance from the front:1000mm;
✧ Distance from the back: 800mm;
✧ Distance from the left: 600mm;
✧ Distance from the right:600mm;
✧ Distance from the top:600mm



9.Warranty & Service

- **3 Years Warranty, Lifelong Follow-up Services**

- **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 labor costs is free always.

- **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.