



BOTO Group Ltd.

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Product description

I Chamber photo



II Product description

The sand and dust test chamber can simulate the destructiveness of natural wind and sand climate on products. It is suitable for testing the shell sealing performance of products. It is mainly used for the tests of IP5X and IP6X specified in the shell protection level standard. This equipment is suitable for testing electrical and electronic products, automobile and motorcycle parts, and seals to prevent sand and dust from entering the seals and shells in a sand and dust environment. To test the performance of electronic and electrical products, automobile and motorcycle parts, and seals in the use, storage, and transportation of sand and dust environments. The purpose of the test is to determine the possible harmful effects of particles carried by airflow on electrical products. The test can be used to simulate open sand and dust air environment conditions induced by natural environment or human disturbances such as vehicle movement.

III Design Principle

Design a conical funnel with a dust collection port at the bottom, and install a high-pressure turbine circulating fan suction port at the dust extraction port (bottom) to send the sucked dust to the top of the inner box and let it fall freely from top to bottom through the top of the box, thus starting a cycle over and over again.

IV Meet standards

GBT2423.37-La2 Environmental testing for electrical and electronic products Part 2: Test methods

Test L: Dust test

IEC60068-2-68-La2 Test L: Dust and sand

ISO20653-La2 Enclosure protection grade IP5K/IP6K

GB4208-93-12.4 Enclosure protection grade IP5K/IP6K

IEC60529-13.4 Test requirements for enclosure protection grade of household appliances, low-voltage electrical appliances, automobiles, and motorcycle parts.

V Main technical parameters

Model	BT-IP5X-600
Internal size	600*600*600mm (W*H*D)
External size	1150*1800*950 mm (W*H*D)
Dust baking temperature range	RT+10℃ ~ 60℃
Fine dust	75um or less
Coarse dust	150um or less
Air flow velocity	Not more than 2m/s
Dust concentration	2kg/m ³
Talc dosage	2~5kgm ³
Dust blowing method	Top-down
Air flow meter	1-20L/M
Metal mesh diameter	50um
Nominal spacing between wires	75um or less than 150um
Test time timing	1s~99h (adjustable)
Dust blowing control cycle	1s~99h (adjustable)

Controller control function	(1) Dust blowing time (stop, blow) h/m/s adjustable; (2) Cycle period adjustable at will; (3) Preset test time: 0s~999h99m99s adjustable at will; (4) Power-on mode: off-on-off.
Circulation fan	Closed alloy low-noise motor. Multi-blade centrifugal fan
Load bearing	10kg
Observation window	1
Control system	PLC controller + touch screen (Teelong)
Dust heating system	Stainless steel mica sheet heating sleeve
Internal chamber material	SUS304 stainless steel plate
External chamber material	High-grade brushed stainless steel plate

VI Basic structure

The test chamber body, dust suction port, circulating dust blowing device, flow valve, heating system, protective screen, etc.

VII Usage Environment

1. Power supply: AC220V three-phase five-wire, 50Hz.

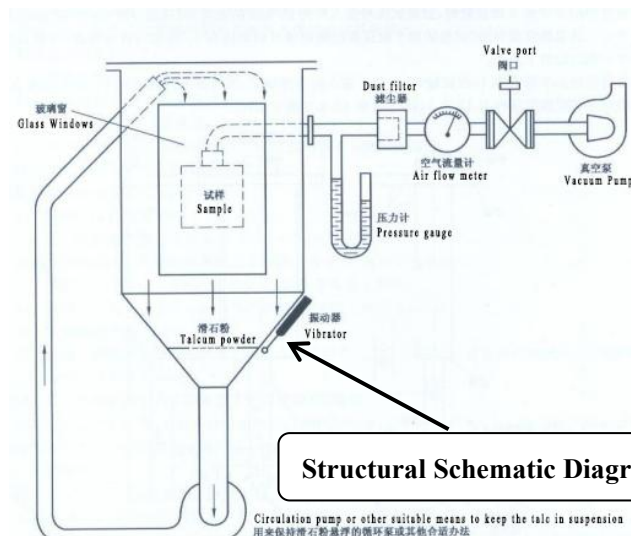
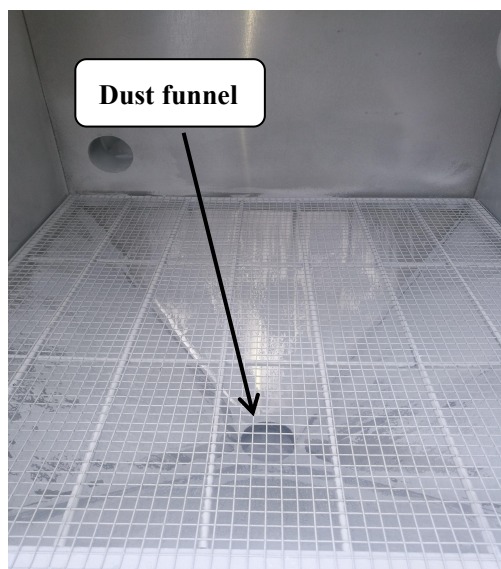
Make a 32A air switch separately. The air switch must have a terminal block. The power cord is ≥ 4 square.

2. Environmental conditions: temperature $(23 \pm 5)^{\circ}\text{C}$; relative temperature 25% ~ 70%RH; atmospheric pressure 86 ~ 106kPa;

3. Power: 3KW (no load);

4. Safety protection system: phase sequence protection, leakage protection, over-temperature protection, abnormal protection, instrument over-temperature protection.

VIII Detail picture



IX Main accessories list				
No.	Item	Brand/Material	Origin	Picture
1	Internal Material	304 stainless steel	Taiwan	
2	External Material	brushed stainless steel	Taiwan	
3	Controller	TEMI	South Korea	
4	Glass operating door	Pei Xin	Taiwan	
5	Intermediate relay	OMRON	Japan	
6	Circulating fan	Shang Yu	Taiwan	
7	Over-temperature protection	RKC	Japan	
8	Sensor	Xuan Rong	Taiwan	

Factory real pictures display

1. Certificate

ISO certificate



Some patents (nearly 100) and certificates



Some patents (nearly 100) and certificates



2. Shanghai Office



3. Factory environment area



Work shop



Our team

4. Spot exhibition hall area \ finished product area



5. BOTO GROUP Factory located in Hunan Yueyang Industrial Park.

The industrial park is constructed by Shanghai Boyi Test Equipment Co., LTD with a total investment of RMB 400 million. Mainly engaged in the research and development and manufacturing of the whole chain of laboratory equipment; It is located next to Yueyang section of Wuhan-Guangzhou high-speed railway, adjacent to Lotus Airport, and has very convenient transportation. The industrial park covers an area of 40 mu, consisting of a comprehensive office building and two standard factories, with a total construction area of nearly 20,000 square meters



Showroom 1



Showroom 2



6. On December 23, 2021, Li Aiwu, deputy Secretary of CPC Committee and Mayor of Yueyang city, Hunan Province, led the participants of Yueyang City industrial project construction mobile site meeting to inspect our company and observe the construction of industrial projects.



7. After the industrial park is fully put into operation, it can meet the annual output of new energy 3C semiconductor electronic circuit optical communication industry laboratory testing room environment simulation box 1200 sets; Another company has an independent sheet metal production and processing center, can independently undertake manufacturing business.



8. Standard size machine

225L High and Low Temperature Humidity
and Heat Alternating Test Chamber



225L

20L constant temperature
and humidity test chamber

Overlapping Temperature and humidity chamber



B-TH-432



Thermalshock test chamber

Double layer constant temperature test chamber

Salt spray test chamber



150L Vertical high and low

temperature test chamber



Ventilation type aging test chamber



Leaning tower ultraviolet aging

test chamber

9 .Large non-standard real pictures display area



**3.6 m3 constant temperature
humidity laboratory**



**9 cubic meters low temperature room,
13 cubic meters high temperature room**



**Three comprehensive and
test chamber**



10.Shipment



Self-produced and sold



No dealer link



Save you 30%



**Quality and after-sales are
recognized by customers**

