BOTO GROUP

Salt Fog Machine

Technical Solution

BOTO Group Ltd.

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BOTO GROUP CO., LTD.
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Technical Regulations and Direction

Description

The salt spray test machine operates on the principle of creating a controlled environment filled with salt-laden mist. This mist is generated by atomizing a saline solution, which is then sprayed onto the test samples. The concentration and temperature of the salt solution, as well as the duration and frequency of spraying, can be precisely adjusted to mimic different real-world scenarios.

ISO 9227-2017, DIN50021、ISO1456-74、ISO3768-78、ASTM B117、 GB/T2423.17-2008、GB/T2423.18-2008、GB/T31467.3、SAEJ2334-2016、 GB/T10587-2006、GJB150.11-1986、GJB150.9-1986、GB/T10125-1997、GB/T5170.8-1996、 JIS And other test Methods designed and manufactured

Equipment performance parameters

Temperature Range: Room temperature ~ 55℃
Temperature Fluctuations: ≤±0.5℃;Temperature Uniformity: ≤±2℃
Temperature Precision: ±1℃
Test Chamber Temperature: Salt Spray Method (NSS ACSS)35±1℃
Corrosion-resistant Testing Method: (CASS) 50 ±1℃
Saturated air Barrel Temperature: Salt Spray Method (NSS ACSS)47±1℃
Corrosion-resistant Testing Method: (CASS) 63±1℃"
Brine Temperature: 35℃±1℃; Spray Quantity: 1.0~2.0 ml/80cm2 /hr
PH value: Salt Spray Method (NSS ACSS6.5~7.2)
Corrosion-resistant Testing Method: (CASS)3.0~3.2

Product structure

1. Specification

Item / Model	B-SST-60	B-SST-90	B-SST-120	B-SST-160	B-SST-200
Internal size (W*H*D)MM	450*600*400	900*500*600	1200*500*1000	1600*500*1000	1600*600*1000
External size (W*H*D)MM	1050*1050*680	1420*1280*880	1300*1400*1900	2280*1500*1170	2700*1500*1170
Internal volume	108L	270L	600L	800L	1200L

2. Spray way

Continuous and Periodic spray type

Sample shelf： 15℃、30℃ The sample stand can meet the inclination test of 15℃ and 30℃

3. Test method : Neutral salt spray test (NSS test), salt spray test (SS test), salt spray, drying, humidity and other salt spray test methods

4. Test chamber body material

1. The test chamber body is made of light gray impact-resistant PVC board, 8mm thick, and the durable temperature is 85℃ (Taiwan Nanya brand). The edge is surrounded by three-dimensional reinforcement with a thickness of 10mm, and the structure is firm;

2. The test chamber cover is sealed with a light gray impact-resistant PVC board with a thickness of 8mm, which will not be distorted or deformed when used at high temperatures. The edges are double-layered inside and outside to prevent distortion and deformation due to long-term high temperatures. Thickness 15mm;

3. The hidden integrated test drug replenishment bottle is easy to clean and easy to operate;

4. The saturated air barrel is made of SUS#304 stainless steel high-pressure barrel with the best insulation effect (Taiwan Taizhan Electric Heating);

5. The sample placement table is made of 8mm heat-resistant ABS board with strong load-bearing capacity. The test sample rack adopts a flat indexing type, and the angle can be adjusted at will. The fog is evenly distributed on all sides, and the fog is completely consistent. The test results are accurate, and a large number of test samples can be placed. (Can be customized according to customer product requirements)

5. Heating system

Direct heating is adopted, the heating speed is fast and the standby time is reduced. When the temperature reaches the required level, it will automatically switch to the constant temperature state, with accurate temperature and low power consumption. Pure titanium heating tube is resistant to acid and alkali corrosion and has a very long service life.

6. Spray system

1. The salt water is absorbed and then atomized by the Bernoulli principle. The atomization degree is uniform, and there is no blocking and crystallization phenomenon, which can ensure the standard of continuous testing;

2. Nozzle: Made of special glass nozzle, the spray volume and spray angle can be adjusted;

3. The spray volume is adjustable from 1 to 2 ml/h (ml/80cm2/h standard requires 16 hours of testing for average; volume). The metering cylinder adopts embedded installation, which has beautiful and neat appearance, convenient observation, and reduces the installation space of the instrument.

4. Spray mode: continuous spray.

7. Air supply system

1. The first stage is for rough adjustment of 2Kg/cm2, and the imported air filter has a drainage function;

2. The second stage is for precise adjustment of 1Kg/cm2, 1/4 pressure gauge, and the display is precise and accurate.

8. Control System

1. The test chamber and pressure barrel are both equipped with LCD double-digit temperature controllers, which have microcomputer automatic calculation function and control error of ±1.0℃ (2 pieces from Japan Huibang). The circuit board is treated with moisture-proof and corrosion-proof, with high precision and long life;

2. The test chamber heating tank uses a liquid expansion safety temperature controller 0～120℃ (1 piece from Italy EGO);

3. LCD digital display time controller, power failure memory function 0.1S～999hr (1 piece from Japan OMRON);

4. Accumulator 0～99999hr (1 piece from Italy VEMER);

5. Relay (1 set from Japan OMRON);

6. Rocker switch with light, which can work continuously for 25,000 times.

9. Safety protection device

1. When the water level is low, the power supply is automatically cut off and the safety warning light device lights up;

2. When the temperature is over, the heater power supply is automatically cut off and the safety warning light device lights up;

3. When the test reagent (salt water) level is low, the safety warning light device lights up and alarms;

4. Leakage protection function to prevent personal injury and instrument failure caused by line leakage or short circuit.

10. Water supply system

Two water supply systems, automatic and manual, are used to automatically or manually replenish the water level in the pressure tank and test chamber to prevent damage to the instrument due to water shortage and high temperature.

11. Demisting system

Remove the salt mist in the test chamber during the test process and when the machine is shut down to prevent the corrosive gas from flowing out and damaging other precision instruments in the Lab.

12. Place

Place flat ground, no corrosive gas around, less dust, preferably with air conditioning;

No strong vibration, no strong electromagnetic interference, no high concentration of dust and corrosive substances, no direct sunlight or other heat source radiation, good ventilation, no flammable, explosive, corrosive gas or dust;

Floor drain is provided near the equipment: defrosting wastewater used in the experiment shall be removed.

The ground bearing capacity of the site is not less than 300 kg/m2;

Appropriate maintenance space should be left around the equipment;

Left: 60 cm or more right: 60 cm or more;

Up :≥60cm front :≥100cm behind :≥60cm.

13. Power supply

AC220V Phase line (red line) also can customs made + Neutral line (blue line) + PGND line (yellow and white line)

Allowable voltage fluctuation range: 220V (1±10%) also can customs made

Frequency allowable fluctuation range: 50Hz (1±1%)

The grounding resistance of the PGND cable must be less than 4 OHms.

The user is required to configure the corresponding capacity of air or power switch for the equipment at the installation site, and the switch must be independent and specialized for the use of the equipment.

14. Salt spray test chamber control panel and electrical accessories	
Thermostat (Zhejiang Dahua)	2
Pressure gauge (Japan KKK)	1
Indicator light (Taiwan)	5
Timer (DHC)	1
Control switch (Taiwan)	2
SSR (Taiwan Yangming)	2
Relay (Japan Omron)	1
Thermosensitive wire (Taiwan Shenjie)	2
Pressure regulating valve (Japan SMC)	2
Solenoid valve (Japan Omron)	4
14. Internal accessories	
Spray tower	2 sets
Storage rack	1 set
Storage rod	1 set
Standard measuring cylinder	2 sticks
Temperature indicator needle	2 sticks
Collector	2 sticks
Glass nozzle	2 sticks
Demisting system	1 set
Reagent sodium chloride (NacI)	2 bottles
Measuring cup	1 piece

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Factory real pictures display

1.Certificate

Registration No.: 00921Q11072R0S

CHINA GREAT WALL (TIANJIN)
QUALITY ASSURANCE CENTRE CO., LTD
QUALITY MANAGEMENT SYSTEM CERTIFICATE

We hereby certify that
BOTO GROUP Ltd.
(Unified social credit code:91310114561890453 5)
Registered address is located at: **Area A, Building 6, No. 8, Yangmuqiao Branch Road, Anting Town, Jiading District, Shanghai.** Post Code: **201804**
Office/Service address is located at: **Room 2304, Fortune Plaza, No.5616 Caoan Highway, Jiading District, Shanghai.** Post Code: **201805**
Its quality management system meets the requirements of the **GB/T19001-2016/ISO9001:2015 Standard.**
The quality management system applies in the following areas:
Sales Of Temperature Test Equipment, Testing Test Equipment.
Date of Issuance: **Jun. 18th, 2021** Date of Expiry: **Jun. 17th, 2024**

CHINA GREAT WALL (TIANJIN) QUALITY ASSURANCE CENTRE CO., LTD. General Manager

中国认可
国际互认
管理体系
MANAGEMENT SYSTEM
CNAS C009-M

The certificate information (including certificate validity, supervision and maintenance of registration qualification and other information) can be scanned by the QR code of the certificate, and the website of the center can be used to check the information of the certificate（ www.isocgw.net ）, and the official website of CNCA（ www.cnca.gov.cn ）Query on.CGW
Add:3F,HengHua Building,No.501,DaGuNa Road,HeXiDistrict,Tianjin,P.R.China;Postalcode:300202;
The wed of centre:www.isocgw.net

CERTIFICATE

With EU Directive of Low Voltage Directive（LVD 2014/35/EU）
Electromagnetic Compatibility（EMC 2014/30/EU）

Certificate No.: **CE-20-0115-01**

Holder: **BOTO GROUP Co., Ltd.**
No.5616,Caoan Road,Jiading District,Shanghai,China

Product: **CONSTANT TEMPERATURE HUMIDITY TEST CHAMBER**

Model(s): **BT-2225**

Standards: **EN 61010-1:2010,EN 61326-1:2013, EN 61000-3-2:2014,EN 61000-3-3:2013**

Based upon the voluntary assessment of the product sample and Technical Construction File, the apparatus is deemed to meet the requirements of the above standards and EC directives.

The manufacturer has the responsibility for ensuring that all serial manufacture of the products are in compliance with the specification of the sample submitted for assessment and detailed in the technical file.

CE

Certification Body
EUROSCENE BUSINESS SOLUTIONS CO.,LTD
Authorised Signature(s)
Euroscene Business Solutions

Date: Jan.15.2020

The CE marking may be used if all relevant and effective EC directives are complied with.

Euroscene Business Solutions Limited
Flat 3,The picture house,195 darkes Lane,Potters Bar,Herts, EN6 1BP

Some patents (nearly 100) and certificates

Some patents (nearly 100) and certificates

Hot & Cold test chamber

- 2017 Annual News Stone Hero List Quality Award

China Printed Circuit Industry Association

Joint Laboratory of Power Battery Safety Testing

Shanghai BOYI & Beijing Jiaotong University

China quality club enterprise member

2.Shanghai Office :

3.Factory environment area

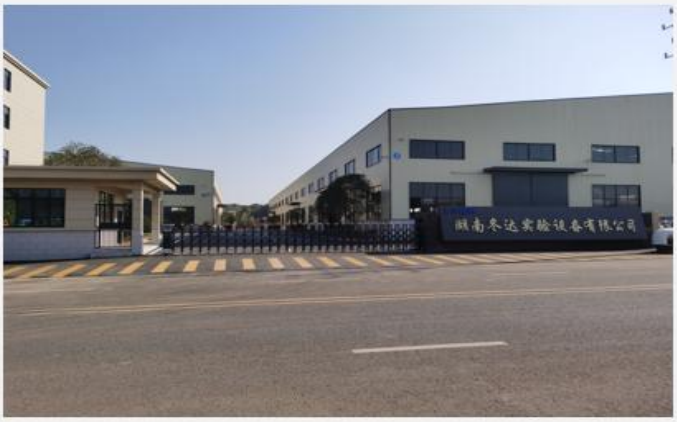
Work shop

Our team

4.Spot exhibition hall area\finished product area

5.BOTO GORUP 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

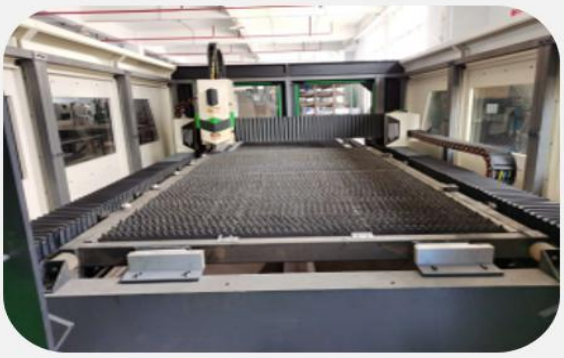


Showroom 1

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

20 L constant temperature and humidity test chamber

Overlapping Temperature and humidity chamber

Thermalshock test chamber

Double layer constant temperature test chamber

Salt spray test chamber

150LVertical 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 laboratory

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

Three comprehensive and humidity test chamber

10.Shipment

Self-produced and sold

No dealer link

Save you 30%

Quality and after-sales are recognized by customers