

Formaldehyde Release Climate Test Chamber

Model:SRJQ-1000

Product description:

Formaldehyde emission from wood-based panel is an important index to measure the quality of wood-based panel, which is related to the environmental pollution of products and the impact on human health. The detection method of 1 m³ formaldehyde emission climate box is a standard method widely used at home and abroad to detect the formaldehyde emission of indoor decoration and decoration materials. Its characteristic is to simulate the indoor climate environment, and the detection results are closer to the reality, so it is true and reliable. This product is developed with reference to relevant standards of formaldehyde test in developed countries and relevant standards in China. This product is applicable to the determination of formaldehyde emission from various wood-based panels, composite wood floors, carpets, carpet liners and Carpet Adhesives, the constant temperature and constant humidity balance treatment of wood or wood-based panels, and the detection of volatile harmful gases in other building materials.

Meet standards

GB18580—2017 《Formaldehyde emission limit of indoor decoration materials, wood-based panels and their products》

GB18584—2001 《Limit of harmful substances in wooden furniture》

GB18587—2001 《Indoor decoration materials carpet, carpet liner and carpet adhesive release limit of harmful substances》

GB17657—2013 《Test method for physical and chemical properties of wood-based panels and veneered wood-based panels》

EN 717—1 《Measurement of formaldehyde emission from wood-based panels environmental chamber method》

ASTM D6007—02 《Standard Test Method for formaldehyde concentration in gases emitted from wood products in a small-scale environmental chamber》

LY/T1612—2004 《1m climate box device for formaldehyde emission detection》

GB50325—2010 《Code for indoor environmental pollution control of civil construction engineering》

Product image: Image for reference only



Technical parameters:

Model	SRJQ-1000
Chamber Inside volumn	(1±0.02) m ³
Temperature range	(10—40)°C (Temp deviation ±0.5°C)
Humidity range	(30—80)%R.H.
Humidity fluctuation	±3%RH
Air exchanging rate (1/h)	(0.2-2.0)times/h (accuracy0.05time / h)
Air velocity	(0.1—2.0)m / s (Continuously adjustable)
Sampler extraction speed	(0.25—2.5)L/min (accuracy :±5%)
Tightness	When there is an overpressure of 1000Pa, the gas leakage is less than 10 ⁻³ × 1m ³ / min, the gas flow difference between inlet and outlet is less than 1%
External dimension (W x D x H)	(W1100×D1900×H1900)mm
Power Supply	220V 16A 50HZ
Power	Rated power: 3kw, operating power: 2kw
Background concentration control	Formaldehyde concentration ≤ 0.006 mg / M ³
Adiabaticity	The walls and doors of the climate box shall have effective thermal insulation
Noise	Less than 60dB when the chamber operation
Continuous working time	The continuous working time of the climate box shall not be less than 40 days

*Humidity control method	The dry wet method and dew point intelligent integrated wet method control the relative humidity of the work cabin. This method can quickly reach the set test environment within one hour and remain stable for a long time after reaching the standard setting environment. The humidity is stable and the fluctuation range is less than 3% rh. And no water droplets will be generated in the bulkhead.
*Remote monitoring (optional)	Remote real-time monitoring of equipment operation status at mobile terminal and computer terminal
Control system	The touch control screen is used as the dialogue interface for personnel to operate the equipment, and the German Siemens PLC control system is adopted
Cooling system	The original imported Italian ASPA refrigeration compressor is adopted
Safety protect system	High voltage and overcurrent protection of cooling system, over temperature protection of heater, over-current protection of motor, water shortage protection, overheating, over-current and overpressure protection of air pump, etc

Working principle and Features:

Working principle:

Put the sample with 1 square meter surface area into the climate box with the temperature, relative humidity, air flow rate and air replacement rate controlled at a certain value. Formaldehyde is released from the sample and mixed with the air in the box. The air in the box is extracted regularly. The extracted air is passed through the absorption bottle containing distilled water, and all formaldehyde in the air is dissolved in the water; Measure the amount of formaldehyde in the absorption solution and the extracted air volume, expressed in milligrams per cubic meter (mg / m³), and calculate the amount of formaldehyde per cubic meter of air. Sampling is periodic until the formaldehyde concentration in the test box reaches equilibrium.

Features:

1. The inner cavity of the box is made of stainless steel, with smooth surface, no condensation and no adsorption of formaldehyde, so as to ensure the detection accuracy. The thermostatic box is made of hard foaming material, and the box door is made of silicone rubber sealing strip, which has good thermal insulation and sealing performance. The box is equipped with a forced air circulation device (forming a circulating air flow) to ensure that the temperature and humidity in the box are balanced and consistent. The main structure: the inner tank is a mirror stainless steel test chamber and the outer layer is a thermal insulation box. It is compact, clean, efficient and energy-saving, which not only reduces the energy consumption, but also reduces the balance time of the equipment.
2. The 7-inch touch screen is used as the dialogue interface for personnel to operate the equipment, which is intuitive and convenient. It can directly set and display the temperature, relative humidity, temperature compensation, dew point compensation, dew point deviation and temperature deviation in the digital display box.

It adopts the original imported sensor, and can automatically record and draw the control curve. Configure special control software to realize system control, program setting, dynamic data display and historical data playback, fault recording, alarm setting and other functions.

3. The equipment adopts industrial module and imported programmable controller, which has good operation stability and reliability, can ensure the long-term fault-free operation of the equipment, improve the service life of the equipment and reduce the operation cost of the equipment. It also has the function of fault self-test and prompt, which is convenient for users to understand the operation of the equipment, and the maintenance is simple and convenient.

4. The control program and operation interface are optimized according to relevant test standards, and the operation is simple and convenient.

5. The current reciprocating fog humidity control is changed, and the dew point method is used to control the humidity, so that the humidity in the box changes smoothly, as to greatly improve the humidity control accuracy.

6. Imported thin-film high-precision platinum resistance is adopted as the temperature sensor, with high precision and stable performance.

7. The heat exchanger with advanced technology is used in the box, which has high heat exchange efficiency and reduces temperature gradient.

8. Compressor, temperature and humidity sensor, controller, relay and other key parts of equipment were imported parts.

9. Protection device: the climate box and dew point water tank are provided with high and low temperature alarm protection measures and high and low water level alarm protection measures.

10. The whole machine is integrated and compact; Installation, commissioning and use are very simply.

Production line and stock image:



Cutting machine



Bending machine



Chamber shell



Chamber shell



Chamber in stock



Chamber in stock