



# SINO TEST

## 中机试验

试验机夹具及附件

中国高端试验装备技术引领者

## Environmental Chamber

The low/high temperature environmental test chamber mainly consists of a low/high temperature chamber, a temperature measurement and control system, a refrigeration unit system, etc.

This device is a kind of sampling device that simulates high and low temperature environment under atmospheric atmosphere, mainly providing controllable low/high temperature testing environments for various testing devices. This device has a wide range of temperature settings and adopts a balanced temperature regulation method, which can adjust the ideal temperature environment. It has the characteristics of stable temperature control and good temperature uniformity. It can be widely applied in industries such as colleges, research institutes, product quality supervision, and production enterprises.



### Standards

GB/T 10592-2008 *Specifications for low/high temperature test chambers*

GB/T 10589-89 *Specifications for low temperature test chambers*

No.	Internal Size(mm)	Heat capacity(kg)
1	200×200×450	20
2	300×300×450	25
3	300×300×750	50

No.	Window Size(mm)	Window function
1	100×100	Defrosting
2	200×200	Defrosting

### Chamber parameter

No.	Temp.	Cooling	Temp. uniformity	Temp. fluctuation	Heating rate	Cooling rate
1	-70-+350°C	compressor	≤±2°C	±0.5°C	2~3°C/min (no load) 1~2°C/min (full load)	0.7~1.0°C/min(no load) ≥0.5°C (full load)

2	-70-+350°C	liquid nitrogen	$\leq \pm 2^{\circ}\text{C}$	$\pm 0.5^{\circ}\text{C}$	2~3°C/min (no load) 1~2°C/min (full load)	4~5°C/min
3	-40-+350°C	compressor	$\leq \pm 2^{\circ}\text{C}$	$\pm 0.5^{\circ}\text{C}$	2~3°C/min (no load) 1~2°C/min (full load)	0.7~1.0°C/min (no load) $\geq 0.5^{\circ}\text{C}$ (full load)
4	-190-RT	liquid nitrogen	$\leq \pm 2^{\circ}\text{C}$	$\pm 0.5^{\circ}\text{C}$	2~3°C/min (no load) 1~2°C/min (full load)	4~5°C/min
5	-190-+350°C	liquid nitrogen	$\leq \pm 2^{\circ}\text{C}$	$\pm 0.5^{\circ}\text{C}$	2~3°C/min (no load) 1~2°C/min (full load)	4~5°C/min
6	RT-+350°C	heater	$\leq \pm 2^{\circ}\text{C}$	$\pm 0.5^{\circ}\text{C}$	\	\

*Note: Environmental chambers of other sizes can be customized according to your needs.*

## Atmospheric Furnace

The structure of the high-temperature atmospheric furnace unit consists of a furnace shell, upper/lower end covers, insulation plates, muffle tubes, heating elements, electrode plates, insulation layers, etc. The furnace shell, upper/lower end covers, and insulation plates are processed from high-temperature resistant stainless steel materials; The furnace muffle tube is made of sintered alumina heat-resistant castings. The heating element (divided into upper, middle, and lower sections) is embedded and wrapped in iron chromium aluminum material inside the muffle tube. It is heated in a semi exposed manner to improve the oxidation resistance and service life of the furnace wire. The insulation material is ultra-fine ceramic cotton, and the overall structure of the atmospheric furnace is compact, easy to operate, and has good insulation effect.



### 150mm uniform temperature zone

No.	Temp.	Wire(mm)	Temp.deviation	Temp.gradient	Internal Size(mm)	External Size(mm)	Front mouth Size(mm)
1	200-1100°C	China φ1.5	±2°C	3	φ90×380	φ320×460	20×100
2	200-1200°C	French φ1.4	±2°C	3	φ90×380	φ320×460	20×100
3	200-1200°C	China φ5	±2°C	3	φ90×380	φ320×460	20×100

### 200mm uniform temperature zone

No.	Temp.	Wire(mm)	Temp.deviation	Temp.gradient	Internal Size(mm)	External Size(mm)	Front mouth Size(mm)
1	200-1100°C	China φ1.5	±2°C	3	φ90×420	φ320×500	20×100
2	200-1200°C	French φ1.4	±2°C	3	φ90×420	φ320×500	20×100
3	200-1200°C	China φ5	±2°C	3	φ90×420	φ320×500	20×100

**Note: 1. The imported French furnace wire cannot be used for a long time at 1200 °C.**

**2. Domestic Chinese φ 5mm furnace wire needs to be equipped with a transformer.**

**3. The coupling method is to bind one thermocouple each for upper/middle/lower temperature control section.**