

# Highly Accelerated Stress Test Chamber

Highly Accelerated Stress Test Chamber is a non-saturated high-pressure accelerated aging tester. It operates under non-saturated humidity conditions (adjustable from 65% to 100% RH), along with controlled temperature and pressure. This HAST chamber is widely used in IC semiconductors, connectors, circuit boards, magnetic materials, polymer materials, EVA, photovoltaic components and other industries-related products for accelerated aging testing shelf life study. This chamber finds applications in the testing of paints and coatings, rubber, plastics, pigments, waterproof materials, adhesives, fabrics, and more. chemicals, building materials, medical, aerospace and other products quality testing.



## Standards:

IEC60068-2-66;  
JESD22-A102-C;  
JESD22-A110-B;  
JESD22-A118;  
GB/T 2423.40-1997

## Features:

**Energy Saving and Power Saving, Reliable Operation**

External rotor fan, large elevation angle, large air volume, low-speed mute, turn axial fan sound energy saving 30%. The water pipe adopts copper pipe + bell, precision design, good air tightness, and low water consumption. Controller operation adopts a fuzzy algorithm to ensure precise operation.

**Automated Control System, More Accurate Control**

The water tank adopts 16L large-capacity water tank, which is placed at the bottom of the box, and adopts the latest active automatic water replenishment system, which effectively prevents the heating tube from dry burning; the test will not be terminated; the equipment will automatically remove the pressure at the end of the test.

**Good Sealing Performance, Long Service Life**

Special packing material: high temperature resistant rubber foam molding, the greater the pressure of the inner box, packing will have counterpressure will make it more closely combined with the box, and the traditional extrusion type is completely different, can extend the packing life.

**Strictly Selected Materials, Standard Design is Safer:**

Arc double liner design, stainless steel round test chamber structure, in line with industrial safety container standards, can prevent condensation and moisture phenomenon in the test, but also to avoid the direct impact of steam overheating, to meet the UHAST and BHAST test requirements. Meanwhile, the product design separates water and electricity, which is safer.

**Intelligent and Easy to Operate**

Critical point LIMIT mode automatic safety protection, abnormal causes and faults show the machine has a timed drying function, so that the test product is in a dry state. Controller human-machine interface interactive and friendly form design, 7" TFT true color LCD touch screen, easy to operate.

**Easy to Clean and Operate, Good Heat Dissipation**

You can monitor the operation of the machine and control the machine remotely via LAN or by connecting the machine directly to a computer. V-type condenser, large area heat dissipation design, efficient cooling. Cold rolled plate baking paint is easy to take care of, corrosion resistance, high and low temperatures.

**Multi-port Data Support, Convenient to Monitor the Test Process**

With USB interface to copy records directly, including historical curves, historical data, etc., directly copied to the computer to view and analyze and save the disk. Optional RS-232 or RS-485 communication interface, can be bi-directional control of the machine and computer hard disk storage data. Large program capacity: 269 groups of program functions, each group of programs can be edited 50 paragraphs.

## Specification:

Inner Box Size:  $\phi 400 \times D500$  mm round test box (can be customized according to requirements)  
Outer Box Size: Width  $\leq 700$ mm, Height  $\leq 1600$ mm, Depth  $\leq 1100$ mm  
Inner Box Material: SUS 316# Stainless Steel Plate Material  
Outer Box Material: Senior Baking Paint  
Temperature Range: non-saturated  $100^{\circ}\text{C} \sim +135^{\circ}\text{C}$  saturated  $105^{\circ}\text{C} \sim +135^{\circ}\text{C}$   
Temperature Fluctuation:  $\leq \pm 0.5^{\circ}\text{C}$ .  
Temperature Uniformity:  $\leq \pm 2.0^{\circ}\text{C}$ .  
Humidity Range: 75%RH~100%RH.  
Humidity Fluctuation:  $\leq \pm 2.5\%$  R.H.  
Humidity Uniformity:  $\leq \pm 3.0\%$  R.H.  
Pressure Range:  $0.2 \sim 2$  kg/cm<sup>2</sup> ( $0.02 \sim 0.196$  MPa/ $2.9 \sim 28.45$  psi) pressure on the table inside the box, (ambient atmospheric pressure, then add another 1 atmospheric pressure)  
Temperature Distribution:  $\leq \pm 2.0^{\circ}\text{C}$ .  
Temperature Rise Time: room temperature  $\rightarrow +135^{\circ}\text{C}$  about 50 min;  
Boosting Time: Normal pressure  $\rightarrow +2$  kg/cm<sup>2</sup> about 50 min.  
External gas source pressurization: about 5 min.  
Control Object: Microcomputer + P.I.D. + S.S.R. Automatic calculation control of saturated vapor temperature.  
Control Mode: Microcomputer PID Control  
Control Accuracy:  $\leq \pm 0.5^{\circ}\text{C}$ .  
Analysis Accuracy:  $0.1^{\circ}\text{C}$ .  
Installed Power: about 4 kW  
Maximum Current: 18A

## ChiuVention INSTRUMENT LTD

As one of the climate chamber manufacturers, we are confident that we can solve various things for our customers. Please feel free to purchase our environmental test chamber or connect with us.

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