



Thermal Shock Chambers

- The structure of the chamber consists of an electrostatically sprayed outlook, refrigeration system, heating system, an air circulation system, a control system with the interior made up of SUS304 high-quality stainless steel plate, thus giving the chamber a refine and modern look. The insulation of the chamber is composed of high-density polyurethane foam and ultra-fine glass wool, which provide good quality temperature resistance and heating capability.
- Using Japanese imported module for the temperature and humidity control, the engineer had given the chamber an ergonomic feel, and together with the use of HMI, test data and historical runs can be stored and view easily by the user.



Characteristics

1. German GEA BOCK compressor.
2. Refrigeration system adopts a low binary temperature loop system design.
3. The multi-wing centrifugal blower is used to circulate the air flow in the box ensuring contact to all angles and making sure the temperature is evenly distributed in the test area.
4. The return air path, wind pressure and speed are all in compliance with International Standard, and temperature is constant even when the chambers doors are in use.
5. The heating and cooling systems are controlled independently, thus improving the efficiency, reducing failure rates and maintenance cost, and improve the shell-life of the chamber.
6. Touch panel GUI, for better operation and navigation of the system.

7. System lock feature is implemented during run time, to avoid any accidental change of data input.
8. With the function of automated P.I.D, any changed to the temperature can be corrected immediately, making the temperature control more precise and stable.

Technical Specification

Name & Model	XST-010CFS
Dimensions	L 1845mm*W1480mm*H2100mm
Liner size	L510mm*W520mm*H400mm
temperature range	-70℃～150℃
Fluctuation/uniformity	≤±0.5℃/±2℃
Heating time	-40℃～100℃ about 55min
Cooling time	25℃～-70℃ about 60min
Controller	P、I、D +S、S、R. Microcomputer integrated controller
Accuracy	Setting accuracy: temperature ±0.1℃, indicating accuracy: temperature ±0.1℃, resolution: ±0.1℃
Temperature and humidity sensor	Industrial Platinum Resistance PT100Ω/MV Class A
Heating system	Fully independent system, low thermal resistance nickel-chromium wire electric heater
Cooling System	Fully enclosed air-cooled overlapping compression refrigeration system
Circulatory system	Air conditioned motor with temperature resistance and low noise with multi-wing stainless steel centrifugal wind wheel
Outer box material	High quality carbon steel plate. Phosphating electrostatic spraying treatment /SUS304 stainless steel mist surface pattern treatment
Inner box material	SUS304 stainless steel high quality plate
Heat Insulation material	High-density polyurethane hard foam, ultra-fine glass fiber cotton
Door frame with heat insulation	Double-layer high and low temperature resistant silicone rubber door seal
Comes complete with	1 set of glass window, 2 pieces rack for putting panels, 1 piece testing hole (50mm) for metrology
safety protection	Leakage, short circuit, overtemperature, motor overheat, compressor overpressure, overload, overcurrent protection
Timing function	0.1～999.9 (S、M、H) Adjustable
Power supply voltage	AC380V±10% 50±0.5Hz Three phase five wire system
Ambient temperature	5℃～+30℃ ≤85% R.H

- Note:
1. All above data are measured at ambient temperature (QT) of 25℃ in the no load condition operating chamber.
2. Non standard high and low temperature chamber can be customized according to specific requirements.