

# Technical specification of Salt mist corrosion test chamber

## 1. Product Application

This salt mist corrosion test chamber is suitable for accelerating salt mist corrosion test of industrial products such as electronic devices, product parts, protective layer of metal materials, etc. It can quickly and conveniently reproduce the corrosion process of sprayed and untreated metal surfaces.



## 2. General Parameter

Standard: IEC60068-2-52 Test Kb: Salt mist, cyclic (sodium chloride solution), IEC61701 Salt mist corrosion testing of photovoltaic (PV) modules

Internal Dimension: 2300×2000×2300 (L\*W\*H).

Volume: 10.6m<sup>3</sup>.

External Dimension: 3300×2500×2800 (L\*W\*H).

Temperature Range: RT+5 °C~+60 °C

Temperature Uniformity:  $\leq \pm 2^{\circ}\text{C}$

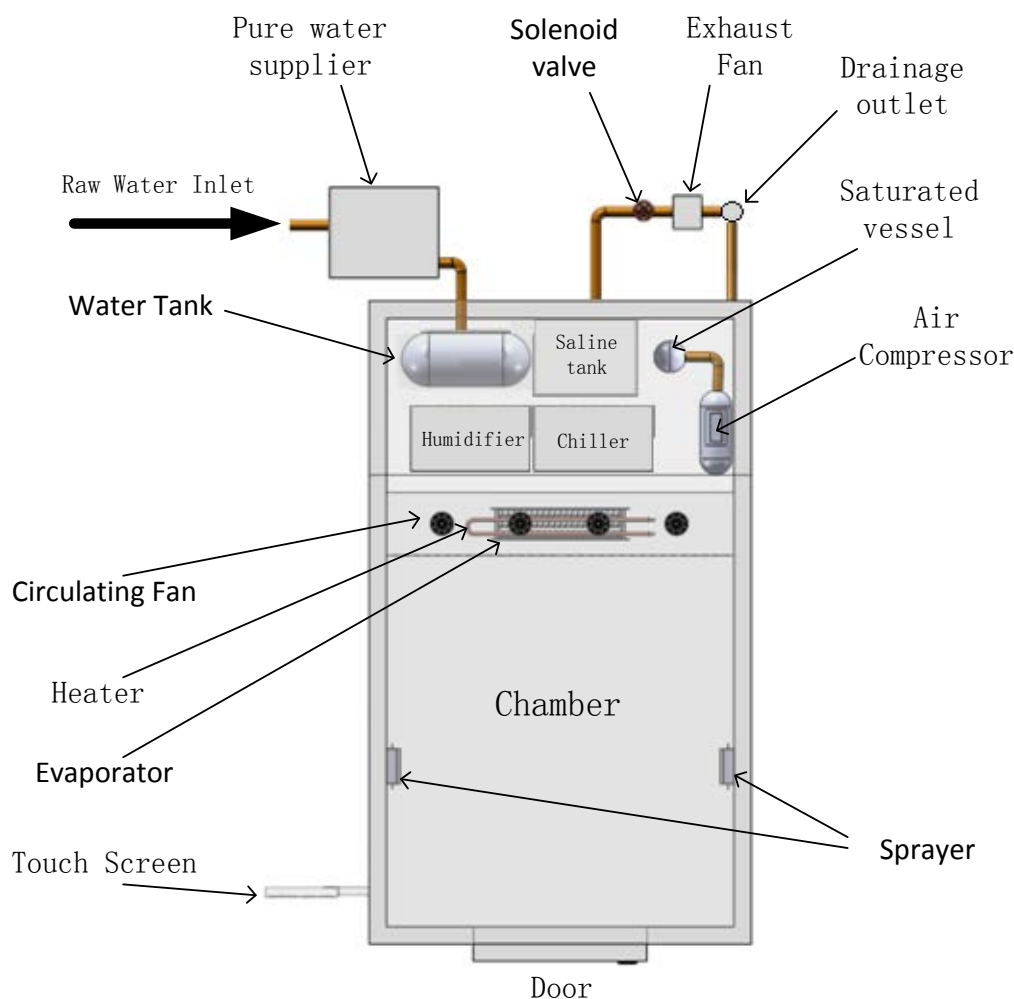
Temperature Fluctuation:  $\leq \pm 1^{\circ}\text{C}$

Humidity Range: 30~100%RH.

Humidity Fluctuation:  $\pm 5\%$  RH.

Salt density: 5%  $\pm 0.5\%$ .

## 3. Structure



Sr. No.	Equipment part	Function	Specification of key material.
1	Chamber	Enclose the sample	<p>External Material: 1.2mm thickness, 316L stainless steel.</p> <p>Internal Material: 1.2mm thickness, 316 stainless steel.</p> <p>Heart Insulation Material: 100mm thickness, Flame retardant polyurethane</p> <p>Sample support: For 2100mm*1250mm*50mm module, 316 stainless steel.</p> <p>Observation Window: Tempered glass, 400*500mm.</p> <p>Temperature sensor(PT100):</p> <p>Temperature range: 0-200°C.</p> <p>Temperature resolution: 0.1 °C.</p> <p>Temperature accuracy: 1%.</p> <p>Humidity sensor(Wet bulb gauze):</p>

			Humidity range: 0-100%RH. Humidity resolution: 1%. Humidity accuracy: 5%.
2	Salt mist system.	Inlet the salt mist into the chamber.	Air compressor: 30L silent compressor including pressure gauge and pressure reducing valve.. Saturated vessel: 1.2kw, 304 stainless steel, pressure is larger than 4kg. Temperature sensor(PT100): Temperature range: 0-200 °C. Temperature resolution: 0.1 °C. Temperature accuracy: 1%. Solenoid valve: Φ10mm diameter, 316L stainless steel. Tube: Φ10mm diameter, 316L stainless steel, Silicon or PP. Saline tank: 50L, 316L stainless steel. Sprayer: Plexiglass & 316L stainless steel.
3	Cooling & Heating system	Control the temperature in the chamber.	Cooling system: Cooling(Chiller) power, 5P. Evaporator: 316L stainless steel evaporator. Heating system: 9KW. 316L stainless steel heater. U shape Heater: Titanium alloy Circulating fan: 90W*4. 304 stainless steel coating
4	Humidity system	Control the humidity in the chamber	Pure water supplier: 20L/h, 0.2us/m conductivity. Humidifier: 316L stainless steel. Water tank: 304 stainless steel.
5	Exhaust treatment system.	Absorb the ammonia after testing.	Solenoid valve: Steel with anti-corrosive coating. Fan: 2000m <sup>3</sup> /h, PP material.



Chiller



Saturated vessel



Sprayer

#### 4. Control

Controller: 7" touch screen controller, 800\*600 resolution.

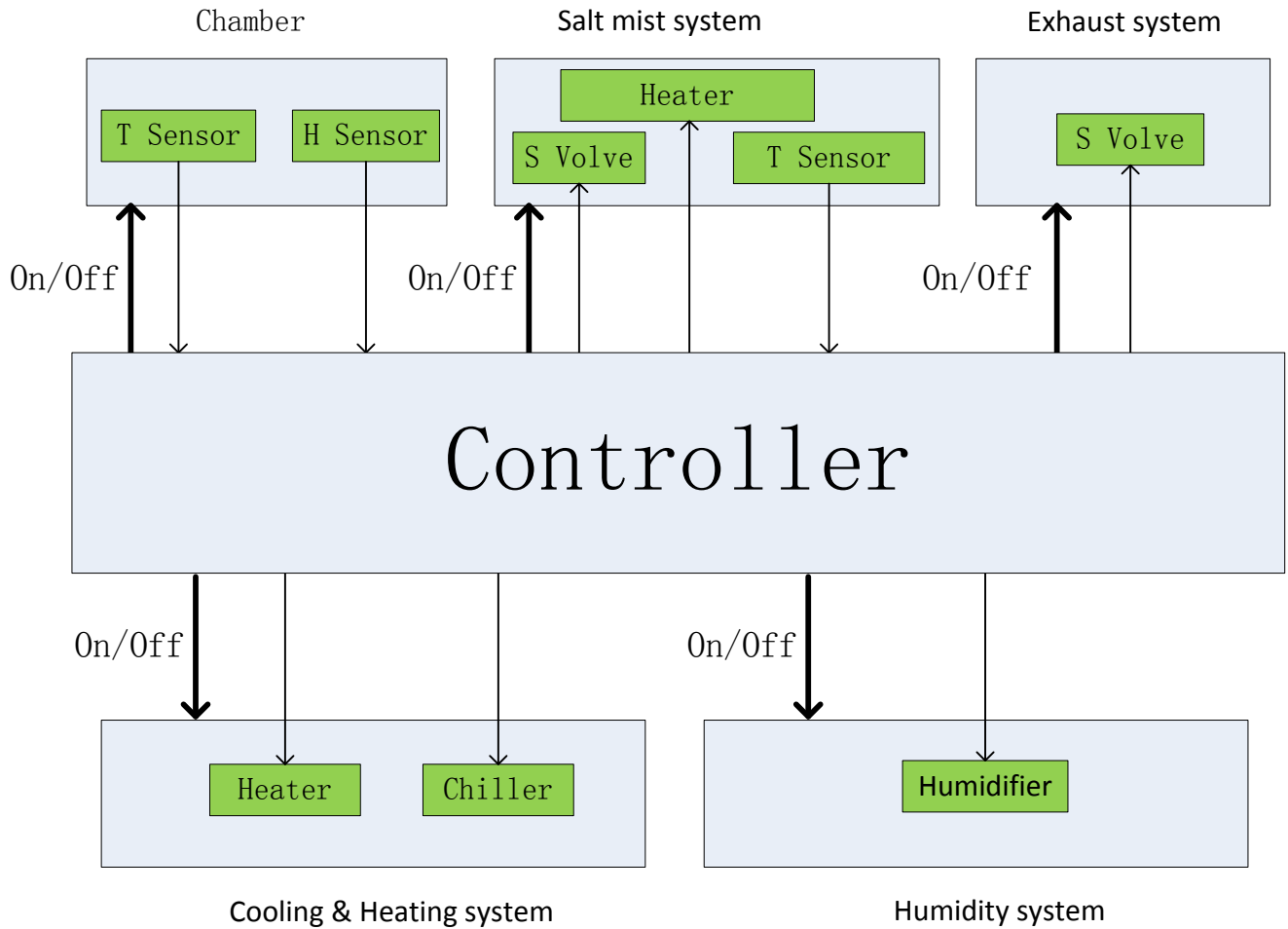
Temperature control: PID

Humidity control: PID

Ammonia control: On/Off

Operation: Pre-set program.

Program capacity: 999 pcs program. 999 step in one program.



## 5. Security protect

Reliable grounding protection;  
 Leakage break off protection;  
 Heater short circuit protection;  
 Over temperature protection with acoustooptic alarm  
 Over press protection of chiller.  
 Over load protection of chiller;  
 Low voltage, over voltage, Lack phase protection of power supply.  
 Lack water protection.

## 6. Facility demand

Salt: Industrial class  
 Raw water flow: 20L/h.  
 Raw water pressure:  $2\text{kg/cm}^3$   
 Drain pipe:  $\geq \Phi 80\text{mm}$   
 Power supply: AC 380V, 50HZ, 35KW.  
 Space: 6300\*4000\*3200 (L\*W\*H)  
 Environment Temperature:  $10^\circ\text{C} \sim 40^\circ\text{C}$ .

Environment Humidity:  $\leq 85\%$ .**7. Spare parts & Consumables**

Sr. No.	Name	Manufacture	Model	Replace Period
1	Wet bulb gauze	WICK	WG-104H	3 months
2	Sealing strip	Ao Weite	R18	2 year
3	Sprayer	Changzhou Chemical	40 type	Easily break
4	Heating tube	Yangshi	U-2000	1 year
5	Floating ball valve	Dongguan Enfu	FD80SL10	1 year
6	Humidifier	Yangshi	U-3000	1 year
7	Temperature Sensor	Suzhou Weile	PT100	1 year
8	Water filter	Dow Chemical	TS-D130-L/H	1 year
9	Solid state relay	Wuxi Gute	SSR-3P4040	1 year