

EXPERIENCED
MANUFACTURER & EXPLORER OF
ENVIRONMENTAL
TEST CHAMBERS IN
CHINA



- TWENTY YEARS EXPERIENCE IN ENVIRONMENT SIMULATION
- · TWO YEARS WARRANTY WITH LIFETIME TECHNICAL SUPPORT
- ADVANCED MANUFACTURING FACILITIES
- STRICTEST QUALITY CONTROL SYSTEM



# A bout us

Symor Instrument Equipment Co., Ltd (Climatest Symor® below) is China leading environment simulation testing equipment manufacturer, Climatest Symor® integrates state-of-the-art R&D, Marketing with Production and Shipping. We have initially built ISO9001:2008 Quality Management System. Besides, we insist on the principle "Build trust Before Business", comprehensively implement the service idea of "stand by customers' side and consider for them", we provide one-stop service ranging from custom-made climatic chambers, full technical support, to after sale service.

Climatest Symor® brings in advanced manufacturing facilities and technique in China, such as CNC Machine, Bending Machine, Lathes, Laser Cutting Machines, we adopts original Germany/France imported compressors, well-known brands of LCD controllers, our engineers are well trained with 15-20 years experience in this industry, at present, we are developing our exclusive controller, integrating computer control technology with touch screen display for more convenient operation, we aim to manufacture most reliable climate test chambers in China.

Climatest Symor® specializes in manufacture and design climate simulation test chambers, including Temperature Humidity Chamber, Thermal Shock Chamber, Fast Temperature Change Chamber, Salt Spray Chamber, UV Weathering Chamber, Ozone Test Chamber, Walk-in Chamber, etc. Most products are CE and ISO certified, our engineers are much experienced, and sales team are well trained to serve customers, our climatic chambers are mainly applied on Electronics, Semiconductor, Automobile Telecommunication, Aerospace, Pharmacy Industries.

We export climatic chamber to more than 20 countries. Our professional pre-sale and after-sale teams are ready to support you, Symor Instrument Equipment Co., Ltd strives to build cooperative partnership with you in climate simulation industry!



# PROGRESS 测试是为了进步! Test is for your progress!













温度试验箱 TGDJ Series



# Product Introduction

Temperature Chamber dedicates to test products performance by simulating extreme temperature cycling condition, it is able to evaluate whether the products meet specified standard and also provides a good reference in R&D stage, it is widely applied on Electronics, Telecommunication, Automobile, Packaging, Aerospace industries.

Model	TGDJ-50	TGDJ-100	TGDJ-150	TGDJ-250	TGDJ-500	TGDJ-800	TGDJ-1000		
Interior Dimension W*D*H(mm)	350×320×450	500×400×500	500×500×600	600×500×810	800×700×900	1000×800×1000	1000×1000×1000		
Exterior Dimension W*D*H(mm)	950×950×1400	1050×1030×1750	1050×1100×1850	1120×1100×2010	1350×1300×2200	1560×1410×2240	1560×1610×2240		
Temperature Range	Model A :-20°0	Model A :-20°C~+150°C   Model B: -40°C~+150°C   Model C: -70°C~+150°C							
Temperature Fluctuation	≤±0.5°C	≤±0.5°C							
Temperature Uniformity	≤2.0°C	≤2.0°C							
Heating Rate	2.0~3.0°C/mir	2.0~3.0°C/min							
Cooling Rate	0.7~1.0°C/mir	0.7~1.0°C/min							
Interior Material	Anti-corrosion	Anti-corrosion SUS#304 mirror stainless steel							
Exterior Material	Reinforced Ste	eel plate with elec	trostatic spraying	9					
Insulation	Superfine fiber	rglass wool / poly	urethane foam						
Programmable Controller	7" Japan origir	nal imported UNIC	QUE(UMC) touch	screen controller					
Circulation System	Low-noise, hig	jh temperature re	sistant motors, si	ngle cycle, long a	xis and stainless	steel multi-leaf ty	pe centrifuge fan		
Heating System	NiCr heater, in	dependent syste	m						
Refrigeration System		France "TECUMSEH" Hermetic Refrigeration Compressors ,Unit cooling mode / Dual cooling mode (air-cooled), Refrigerant R404A/R23							
Protection Devices		Leakage and outage protection, compressor over-pressure, overheat, over-current protection, overload fusing protection, audio, signal alarm							
Power Supply	AC220V/380V	±10%, 50Hz/60H	z						

 $<sup>\</sup>cdot$ Permissible environmental condition: temperature (18 to 30°C) and relative humidity > 85% RH.

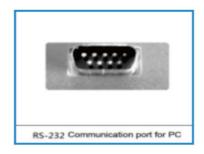
<sup>·</sup>All data are under ambient temperature 20°C, unload.

#### Controller

7" Japan UNIQUE UMC programmable controller Resolution: temperature:  $\pm\,0.1\,^{\circ}\text{C}$ ; humidity:  $\pm\,1\%\text{RH}$  Program:99 programs,999 sections,999 steps RS232 communication port



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## Refrigeration

Original France imported "Tecumseh" compressor Single compressor for -20 $^{\circ}$ C, Double compressors (cascade) for -40 $^{\circ}$ C and -70 $^{\circ}$ C





## Details















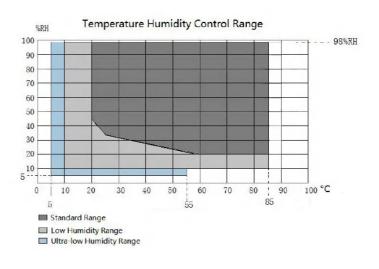




# **Temperature Humidity Test Chamber**

#### 温湿度试验箱 TGDJS Series





# Product Introduction

Temperature Humidity Chamber aims to test products performance by simulating high low temperature and humidity environment condition, it analyzes whether the products meet required standard and provides a good reference in R&D stage, it's widely applied on Electronics, Aerospace Telecommunication, Automobile, Packaging Industries.

Model	TGDJS-50	TGDJS-100	TGDJS-150	TGDJS-250	TGDJS-500	TGDJS-800	TGDJS-1000		
Interior Dimension W*D*H(mm)	350×320×450	500×400×500	500×500×600	600×500×810	800×700×900	1000×800×1000	1000×1000×1000		
Exterior Dimension W*D*H(mm)	950×950×1400	1050×1030×1750	1050×1100×1850	1120×1100×2010	1350×1300×2200	1560×1410×2240	1560×1610×2240		
Temperature Range	Model A :-20°C	Model A :-20°C~+150°C							
remperature Kange	Temperature F	Temperature Fluctuation;≤±0.5°C Temperature Uniformity; ≤2.0°C							
Heating Rate	2.0~3.0°C/mir	2.0~3.0°C/min							
Humidity Range	20% ~ 98% R.H	20% ~ 98% R.H(10%RH is available) Humidity Bias: +2/-3% R.H							
Cooling Rate	0.7~1.0°C/mir	0.7~1.0°C/min							
Interior Material	Anti-corrosion	Anti-corrosion SUS#304 mirror stainless steel							
Exterior Material	Reinforced Ste	Reinforced Steel plate with electrostatic spraying							
Insulation	Superfine fiber	glass wool / poly	urethane foam						
Controller	7" Japan origin	al imported UNIC	QUE(UMC) touch	screen controller					
Circulation System	High temperate	ure resistant moto	ors, single cycle,	long axis and stai	nless steel multi-	leaf type centrifu	ge fan		
Humidification	Shallow slot hu	midification, stea	am humidification	mode, automatic	water supply with	h shortage alarm			
Dehumidification	Refrigeration d	ehumidification r	mode						
Heating System	NiCr heater, in	dependent system	m						
Refrigeration System	France "TECU Refrigerant R4		Refrigeration Co	mpressors ,Unit o	cooling mode / Du	ial cooling mode (	air-cooled),		
Security Devices		Leakage and outage protection, compressor over-pressure, overheat, over-current protection, overload fusing protection, audio signal alarm, water shortage alarm							
Power Supply	AC220V/380V	±10%, 50Hz/60H	z						

- ·Permissible environmental condition: temperature (18 to 30°C) and relative humidity > 85% RH.
- ·All data are under ambient temperature 20°C, unload.

#### Controller

7" Japan UNIQUE UMC programmable controller Resolution: temperature: ± 0.1 °C; humidity: ± 1%RH Program:99 programs,999 sections,999 steps RS232 communication port



3		Program Edit								
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		4	1	0	40.0	1	0	0	0	
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TS	Link	Off	Time	0	0	0	0	0	0	



## Refrigeration

Original France imported "Tecumseh" compressor Single compressor for -20°C, Double compressors (cascade) for -40°C and -70°C





## Details



















#### **Thermal Shock Test Chamber**

冷热冲击试验箱 TS2/TS3 Series



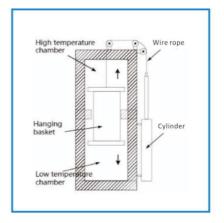
#### Product Introduction

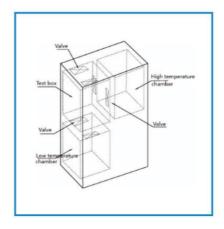
Thermal Shock Chamber tests products performance to withstand continuous temperature cycles, the purpose is to analyze and evaluate products safety performance and screen unqualified ones, it can finalize products chemical changes/physical damage caused by heat expansion and cold contraction principle, the test is mandatory from precise IC to mechanical parts.

# Working Chamber











# Controller

LCD programmable controller

Original Germany imported "Bock" compressor Cascade system







Model	TS3-100	TS3-210	TS3-300	TS3-500				
Interior Dim. W*D*H(mm)	500×500×400	600×700×500	780×700×550	800×900×700				
Exterior Dim. W*D*H(mm)	1950×1150×1950	2100×1350×2200	2250×1350×2300	2250×2500×2150				
Model	TS2-162	TS2-340	TS2-500					
Interior Dim. W*D*H(mm)	450×450×450	600×600×600	800×800×800					
Exterior Dim. W*D*H(mm)	1350×1250×1450	1480×1450×1700	1700×1650×2010					
Basket Size W*D*H (mm)	250×250	400×400 600×600						
Pre-heat Room	Pre-heating Temperature (Upper limit)	200°C						
	Heating Time	RT ~ +200°C/about 40min (unload	1)					
Pre-cooling Room	Pre-cooling Temperature (Lower limit)	-75°C						
	Cooling Time	RT ~ -70°C/about 90min (unload)						
Thermal Shock		-20°C,-40°C,-55°C~+150°C						
Mantine Objects	Temperature Range	-20 0,-40 0,-33 0 1100 0						
Working Chamber	Temperature Fluctuation	≤±0.5°C	±0.5°C					
	Temperature Bias	≤±3.0°C						
Transfer Time & Recovery 1	ime	≤15S ≤5min						
Temperature Recovery	TS3-100	10kg						
	TS3-210	15kg Exposed 30min under +150°C,exposed 5min under RT, exposed 30min						
Condition & Load-bearing	TS3-300	25kg under -55°C						
•	TS3-500	35kg						
	TS2-162,TS2-340,TS2-500	Exposed 30min under +150°C,exposed 30 min under -55°C,25kg specimen						
	Interior Material	Stainless steel (SUS304)						
Material	Exterior Material	Double side steel with surface pa	inting					
	Insulation Material	Superfine fiberglass wool / polyur	ethane foam					
Refrigeration System	Cascade refrigeration system	n, Germany imported "Bock" compr	essor					
Controller		7" Japan original imported UNIQU	JE(UMC) touch screen controlle	er				
Accessories		2 zone&3 zone: Over temperature protector, halogen light, cumulative timer,castors,4 adjustable holders 3 zone: two SUS#304 shelves, one 50mmΦcable hole						
Safety Device		Overload protection: compressor over-pressure protection, over-current protection, short phase protection, water shortage protection, low voltage protection, independent over-temperature protection						
Power Supply		AC380V±10%·50HZ/60HZ						

 $<sup>\</sup>cdot Permissible\ environmental\ condition:\ temperature\ (18\ to\ 30\,^{\circ}C)\ and\ relative\ humidity > 85\%\ RH.$ 

<sup>·</sup>All data are under ambient temperature 20°C, unload.









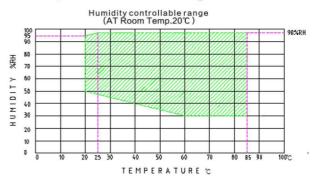


# **Constant Temperature Humidity Test Chamber**

恒温恒湿试验箱 THS Series



#### **¥** Temperature Control Range



#### Product Introduction

Constant Temperature Humidity Chamber tests products ability to withstand extreme temperature and humidity, it analyzes and evaluates whether the components and materials can bear long-term high low temperature storage, transportation, and usage in terminal market without damage.

# Controller

7" Japan UNIQUE UMC programmable controller RS232 communication port



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		No	Hour	Min	Temp	T.R	TS1	TS2	TS3
		1	1	0	80.0	1	0	0	0
		2	2	0	80.0	1	0	0	0
		3	0	30	40.0	1	0	0	0
		4	1	0	40.0	1	0	0	0
Add	Del	41			1			1	
Ren	Сору			Type1	Type2	Type3	Type4	Type5	Type6
-		On		0	0	未标题	0	0	0
TS	Link	Off	Time	0	0	0	0	0	0





# Woring Chamber

Mirror stainless steel sus#304





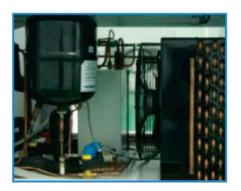


# Refrigeration

Original France imported "Tecumseh" compressor







Model	THS-50	THS-100	THS-150	THS-250	THS-500	THS-800	THS-1000		
Interior Dimension W*D*H(mm)	350×320×450	500×400×500	500×500×600	600×500×810	800×700×900	1000×800×1000	1000×1000×1000		
Exterior Dimension W*D*H(mm)	950×950×1400	1050×1030×1750	1050×1100×1850	1120×1100×2010	1350×1300×2200	1560×1410×2240	1560×1610×2240		
Temperature Range	0°C~+100°C	Temperature FI	uctuation: ±0.5°C	Temperature U	Jniformity: ≤2.0°C				
Humidity Range	20% ~ 98% R.H	Humidity Bias	:2/-3% R.H						
Heating Rate	2.0~3.0°C/min	2.0~3.0°C/min							
Cooling Rate	0.7~1.0°C/min								
Interior Material	Anti-corrosion	Anti-corrosion SUS#304 mirror stainless steel							
Exterior Material	Reinforced Ste	Reinforced Steel plate with electrostatic spraying							
Insulation	Superfine fiber	Superfine fiberglass wool / polyurethane foam							
Controller	7" Japan origin	al imported UNIO	QUE(UMC) touch	screen controller					
Circulation System	Low-noise mot	ors, single cycle,	long axis and sta	inless steel multi	-leaf type centrifu	ige fan			
Water Supply	Automatic water	er supply, with wa	ater shortage alar	m function					
Humidification	Shallow slot hu	midification, elec	ctric heating stear	m humidification r	mode				
Dehumidification	Refrigeration d	ehumidification r	mode						
Heating System	NiCr heater, in	dependent syste	m						
Refrigeration System		France "TECUMSEH" Hermetic Refrigeration Compressors ,Unit cooling mode / Dual cooling mode (air-cooled), Refrigerant R404A/R23							
Standard Configuration		One observe window(Resistant to high and low temperature, toughened glass window), a humidity proof fluorescent lamp, two shelves, $\Phi$ 50mm test hole							
Power Supply	AC220V/380V	±10%, 50Hz/60H	z						

- $\cdot$ Permissible environmental condition: temperature (18 to 30°C) and relative humidity > 85% RH.
- ·All data are under ambient temperature 20°C, unload.



# **Salt Spray Corrosion Test Chamber**

盐雾腐蚀试验箱 TQ Series













# Product Introduction

Salt Spray Corrosion Test Chamber tests products protective layers' resistance to salt spray corrosion, the chamber is widely applied on enclosure of electronics, metal materials and industrial products, the chamber is made by imported reinforced PP plates, which are aging resistant, anti-corrosion, and easy to clean without leakage.

# Technical Parameters

Model	TQ-150	TQ-250	TQ-750	TQ-010	TQ-016	TQ-020				
Capacity	108L	270L	495L	663L	816L	1080L				
Interior Dimension W*D*H(mm)	600×450×400	900×600×500	1100×750×500	1300×850×600	1600×850×600	2000×900×600				
Exterior Dimension W*D*H(mm)	1150×560×1100	1400×850×1200	1650×950×1300	2000×1100×1400	2400×1150×1500	2800×1200×1500				
Temperature Range	RT+5 °C ~ +55 °C	RT+5 °C ~ +55 °C (PID control)								
Temperature Uniformity	≤2.0°C	≤2.0°C								
Temperature Fluctuation	± 0.5°C	± 0.5°C								
Spray Quantity	1~2 ml / 80cm2	1~2 ml / 80cm2								
Spray Mode	Continuous, periodic(Alternative)									
Test Timing Range	1~99(S,M,H)									
Salt Fluid Collection	Standard funnel a	Standard funnel and hoppe								
Salt Fluid Preheat	Preheat salt fluid	to keep same tempe	erature as test cham	ber						
Spray System	Tower type spray	device ,no crystal n	iozzle							
Controller	LED controller(PI	D+SSR)								
Interior Material	Import PP board,	anti-corrosion, high	temperature resista	ant ,aging resistant	and high-intensity					
Exterior Material	Import PP board,	anti-corrosion, high	temperature resista	ant ,aging resistant	and high-intensit					
Tank Cover Material	Import transparen	t PVC board, anti-c	orrosion, high-inten	sity						
Sealing	Watertight sealing	g structure without	salt mist overflow							
Protection Devices	Over-temperature	e, default phase pro	tection, water short	age protection						
Standard Configuration	One "V" type sam	One "V" type sample holder, one pole, two nozzles, two funnels, two measuring cups								
Remark	Humid salt spray	Humid salt spray chamber, cyclic salt fog test chamber are also available(humidity:85%-95%RH)								
Supply Voltage	AC220V/380V±10	0%, 50Hz/60Hz								

·Permissible environmental condition: temperature (18 to 30°C) and relative humidity > 85% RH.

·All data are under ambient temperature 20°C, unload.

#### **Alternating Salt Spray Test Chamber**

交变盐雾试验箱 TS Series



# Product Introduction

Alternating Salt Spray Corrosion Test Chamber test products protective layers' resistance to alternating salt spray corrosion, the chamber is widely applied on outer shell of electronics, marine craft, metal materials and industrial products, the chamber is made by imported reinforced PP plates (or PVC), which are aging resistant, anti-corrosion, and easy to clean without leakage.

Model	TS-150	TS-250	TS-750	TS-010	TS-016					
Interior Dimension (W*D*H)mm	600×450×400	900×600×500	1100×750×500	850×1300×600	850×1600×600					
Exterior Dimension (W*D*H)mm	1600×950×1050	1900×1100×1150	2180×1250×1260	2500×1350×1390	2800×1380×150					
Controller	7" Programmable LCD	7" Programmable LCD controller								
Temperature Range	Salt spraying environm	Salt spraying environment: 35°C ~ 55°C; Damp heat environment: 40°C; Ambient environment: 23°C								
Saturated Bucket Temp. Range	Rt+10°C~60°C	Rt+10°C ~ 60°C								
Working Chamber Hum. Range	Salt spraying: 95% ~ 98	Salt spraying: 95% ~ 98% Damp heat: 93% Ambient: 45% ~ 55%								
Temperature Uniformity	≤±2.0°C									
Temperature Fluctuation	≤± 0.5°C									
Temperature Bias	+2 -3%RH									
Spray Quantity	1~2 ml / 80 cm2/h	1~2 ml / 80 cm2/h								
Spray Mode	Continuous, periodic	Continuous, periodic								
Test Timing Range	1~999(S,M,H)									
Temperature Humidity Sensor	PT100									
Heating system	Full independent M typ	e air heater								
Refrigeration	France Tecumseh com	pressor								
Salt Solution Collection	Standard funnel and m	easuring tank								
Spray System	Tower type spray, Crys	tallization free nozzle								
Salt Solution Preheat	Preheat salt solution to	keep same temperature	as that in test chamber							
Interior Material	Import PP board(or PV	C), anti-corrosion, high te	mperature resistant ,agin	g resistant and high-inten	sity					
Exterior Material	Import PP board(or PV	C), anti-corrosion, high te	mperature resistant ,agin	g resistant and high-inten	sity					
Tank Cover Material	Import transparent PVC	board, anti-corrosion, hi	gh-intensity							
Sealing	Watertight sealing struc	cture without salt mist ove	rflow							
Protection Devices	Over-temperature, defa	ult phase protection, wat	er shortage protection, ov	erload protection						
Standard Configuration	One set of "V" type sample holder, and one set of poles									
Power Supply	AC380V±10%·50HZ/60	HZ								

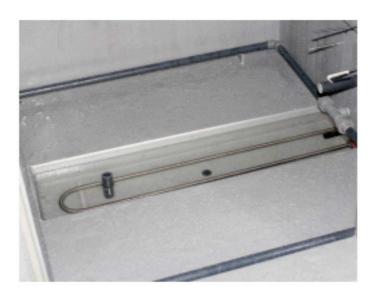
 $<sup>\</sup>cdot$ Permissible environmental condition: temperature (18 to 30 °C) and relative humidity > 85% RH.

<sup>·</sup>All data are under ambient temperature 20°C, unload.

#### **Sulfur Dioxide Test Chamber**

#### 二氧化硫试验箱 SO2 Series





# Product Introduction

Sulfur Dioxide Chamber is used to test anti-corrosion performance of materials and coating layers, it tests corrosion resistance ability on certain products, which is widely applied on Electronic, Metal Protection Layers, Auto Parts and Industrial Products.

Model	SO2-300	SO2-600	SO2-900						
Interior Dimension W*D*H(mm)	600×550×900	850×750×950	1000×900×1000						
Exterior Dimension W*D*H(mm)	850×900×1200	850×900×1200 1000×1100×1250 1300×125							
Temperature Range	RT+10 °C ~ +50 °C								
Humidity Range	85%-95%RH								
Temperature Uniformity	≤2.0°C	≤2.0°C							
Temperature Fluctuation	± 0.5°C	± 0.5°C							
Gas Generating Mode	Air Cylinder	Air Cylinder							
Power Consumption	2.5KW	2.5KW 4KW							
Testing Time	0.1-999.9(S,M,H) adjustable	0.1-999.9(S,M,H) adjustable							
Gas Concentration	0.1~1%,50ml~5000ml adjustable								
Controller	LED digital display (PID+SSR								
Heating	Independent heating system with NiC	Cr heater							
Specimen Angle	15 ° and 30 °								
Gas Control	High precision flow controller								
Chamber Material	Germany imported high temperature	resistant and aging resistant plates							
Door Material	Tempered observation glass window	impact resistance							
Insulation	Aging resistant fluorosilicon rubber s	ealing							
Protection Device	Over current, short circuit, water short	age, over temperature protections, etc							
Supply Voltage	AC220V/380V±10%, 50Hz/60Hz	AC220V/380V±10%, 50Hz/60Hz							
Complied Standard	Complied Standard IEC60068-2-42-2003,GB/T-9789-2008,GB/T2423.33,GB/T10125-1997								

 $<sup>\</sup>cdot$ Permissible environmental condition: temperature (18 to 30 °C) and relative humidity > 85% RH.

<sup>·</sup>All data are under ambient temperature 20°C, unload.

#### **Ultraviolet Aging Test Chamber**

紫外线老化试验箱 TA Series







# Product Introduction

Ultraviolet Weathering Test Chamber takes fluorescent UV lamps as light source to simulate UV irradiation in natural light and condensation to conduct accelerated aging test on products. It simulates the UV, rain, high temperature, humidity, condensation, darkness and other environmental condition, and combine them together, carry them out automatically.

Model	TA-UV
Interior Dimension W*D*H(mm)	1170×450×500
Exterior Dimension W*D*H(mm)	1280×580×1350
Temperature Range	RT+10°C ~ +70°C ±2.0°C
Humidity Range	≥95%RH ±2.0%
Black Panel Temperature	BPT 40 °C ~ 65°C
Lamp Distance(center-center)	70mm
Specimen and Lap Distance	50mm
Humidity Range	≥95% R.H
UV Wave Length	290nm-400nm
Irradiation Source	Fluorescent UV lamps (8) - 40 W
Irradiation Contro	0.3 ~ 20 W/m² ( 340 nm / 313 nm, Double channel radiometer
Exposure	Moisture condensation, UV radiation
Water Spray	Spraying water
Protection Devices	Over temperature, short phase, water shortage, over-current
Power Supply	AC380V±10%·50HZ/60HZ

<sup>·</sup>Permissible environmental condition: temperature (18 to 30°C) and relative humidity > 85% RH.

<sup>·</sup>All data are under ambient temperature 20°C, unload.













# **Fast Temperature Change Rate Chamber**

快速温变试验箱 TFGDW Series



## Product Introduction

Fast Temperature Change Rate Chamber dedicates to test products performance by simulating rapid temperature change, the purpose is to screen unqualified products caused by defective design, manufacturing or wrong artwork in early stage, to improve products quality, minimize repair rate, Fast Temperature Change Chamber is an effective solution for environmental stress screening.

Model	TFGDW-50	TFGDW-100	TFGDW-150	TFGDW-225				
Interior Dimension (W*D*H)mm	350×320×450	450×400×550	500×500×600	600×500×750				
Exterior Dimension (W*D*H)mm	800×800×1570	800×800×1570 900×880×1670 950×940×1720 10050×1000×1870						
Model	TFGDW-408	TFGDW-408 TFGDW-500 TFGDW-800 TFGDW-010						
Interior Dimension (W*D*H)mm	800×600×550	700×800×900	800×1000×1000	1000×1000×1000				
Exterior Dimension (W*D*H)mm	1250×1100×2020	1250×1200×2020	1500×1485×2180	1520×1500×2360				
Interior Material	Stainless steelSUS304							
Exterior Materia	Double side steel with painting							
Controller	7" Japan original imported UNIQUE(UMC) touch screen controller							
Temp. Range	-70°C ~ 150°C (alternating te	emperature range -55°C ~ +85°C)						
Temp. Change Rate	5°C/min or 10°C/min or custo	omized						
Temp. Uniformity	±2.0°C							
Temp. Fluctuation	±0.5°C							
Insulation	Rapid polyurethane foam an	d glass wool						
Heating System	NiCr alloy heater, independe	nt system						
Refrigeration System	Cascade refrigeration system	n, Germany imported "Bock" comp	pressor					
Accessories	Two shelves, lead hole 1 (opti	onal),recorder(optional)						
Protection	Overload protection: compressor over-pressure, overheating, over-current protection, over-temperature protection, phase sequence protection, oil pressure protection, low voltage protection							
Power Supply	AC220V/380V±10%, 50Hz/6	0Hz						

 $<sup>\</sup>cdot$ Permissible environmental condition: temperature (18 to 30 °C) and relative humidity > 85% RH.

<sup>·</sup>All data are under ambient temperature 20°C, unload.

## **IPX3/IPX4 Rain Spray Test Chamber**

雨淋试验箱 TR Series



# Product Introduction

Water Spray Test Chamber is installed with oscillating tubes to spray water onto products by following IEC60529 standard, it tests and evaluates the protection degree provided by the products enclosure, this identified protection level against water ingress is called IP code.

## Details









Model	TR-1000	TR-1500	
Complied Standard	IEC60529		
Interior Dimension(W*D*H)mm	1020*1020*1000 1400*1400*1400		
Exterior Dimension(W*D*H)mm	1280*1720*1820	1850*1600*2250	
Oscillating Tube Radiu	TR1000:Φ500mm TR1500: Φ600mm		
Spray Hole Diameter	Ф0.4mm		
Distance Between Spray Hole	50mm		
Water Pipe Diameter	Ф16mm		
Oscillating Tube Amplitud	± 60° ± 90° ± 180°(theoretically)		
Turntable Rotation Speed	1r/min(Adjustable)		
Water Pressure Control	Settable on controller		
Water Supply	Water tank, booster pump, automatic water supply		
Protection Device	Electric leakage, short circuit, motor over-heating		
Power Supply	AC380V±10%·50HZ/60HZ		

<sup>·</sup>Permissible environmental condition: temperature (18 to 30°C) and relative humidity > 85% RH.

<sup>·</sup>All data are under ambient temperature 20°C, unload.



## **IPX5/IPX6 Rain Spray Test Chamber**

雨淋试验箱



## Product Introduction

Water Jetting Test Chamber tests and evaluates the protection degree provided by enclosure, the protection level against water ingress is called IP code, IPX5 IPX6 Water Jetting test chamber adopts a nozzle spraying water (IPX5:Φ6.3mm, IPX6:Φ12.5mm) against enclosure from every direction which should have no harmful effects, We strictly follows IEC60529 standard.

# Technical Parameters

Model	Capacity(L)	Interior Dimension W*D*H (mm)	Exterior Dimension W*D*H (mm)	
TR-IPX5/6	1000	1000×1000×1000	4850×1440×2000	
	Spray Nozzles	Two separate nozzles. Height is adjustable.		
	Rotary Table	Diameter 300mm (adjustable). RPM 1~3/min, adjustable		
Performance	Rotating Speed	1~3r/min		
	Illumination Lamp	Philips x 1 inside		
	Water Requirement	Purified and softened running water		
Exterior Material	Cold-rolled A3 (Q235) steel plates with plastics painted.			
Interior material	Stainless Steel Plates SUS304 with mirror surface			
Castors	With PU covered for protection. Fixable and moveable			
Observation Window	Toughened glass with conductive films for heating to defrost			
Door	Manually operated sliding door with unlock button			
Controller	Programmable Touch-screen controller with data logging and download function			
Water Storage	Water tank for storing water for recycling use			
Safety Devices	Power leakage protection, over-load or over-current protection/Dry burning protection			
Power Consumption	6.0kW			
Power Voltage	AC220V/380V±10%, 50Hz/60Hz			
Testing Standard	IEC 60529			

·Permissible environmental condition: temperature (18 to  $30^{\circ}$ C) and relative humidity > 85% RH. ·All data are under ambient temperature  $20^{\circ}$ C, unload.

# **IPX9K Rain Spray Test Chamber**

#### 雨淋试验箱





# Product Introduction

High Pressure Steam Wash Test Chamber simulates water spraying from all directions and under high pressure aimed at the enclosure, it can analyzes the enclosure resistance to water.

Model	<b>ІРХ</b> 9К
Interior Dimension W*D*H(mm)	1000×1000×1000
Exterior Dimension W*D*H(mm)	1550×1300×2000
Water Spray Temperature	RT+10 ~ 85°C (Adjustable)
Water Spray Angle	0°,30°,60°,90°
Spray Nozzle	4 nozzles, 30 seconds @each position
Spray Range	30° ± 5°(Single hole); Space 100-200mm
Water Pressure	8000-10000 Kpa (adjustable, set directly, it can display the real-time pressure value)
Water Flow Rate	14L-16L/min
Testing Platform Speed	1~10r/min
Test Platform Diameters	300mm(customized as per product size)
Test Platform Load	15kg(customized as per product weight)
Controller	Programmable touch screen controller with RS232 communication interface
Pressure Meter Alarm function	Power protection, timing (to be automatic stop), water protection, motor overheating protection, water temperature overheating automatic drainage, water function
Operating Environment	No corrosive gas, flat, no vibration, avoid direct sunlight, temperature: +5~+35 C; Humidity: 45~85%RH
Power Supply	AC380V±10%·50HZ/60HZ

<sup>•</sup>Permissible environmental condition: temperature (18 to 30°C) and relative humidity > 85% RH.

<sup>·</sup>All data are under ambient temperature 20  $^{\circ}$ C, unload.



#### **IP5X IP6X Sand and Dust Test Chamber**

沙尘试验箱 TDS Series



## Product Introduction

Sand and Dust test chamber simulates dust and sand climate condition to evaluate the effects on products in dust-filled environment, in order to test product sealing performance. Dust test chambers are applied in home appliance enclosure, electronic and electric products, coatings.

Climatest Symor® manufactured sand and dust chambers are specially designed to test products against dust ingress by following IEC60529 standard.

Model	TDS-500	TDS-800	TDS-1000	TDS-1500
Interior Dimension (W*D*H)mm	800×800×800	1000×800×1000	1000×1000×1000	1500×1000×1000
Exterior Dimension (W*D*H)mm	1220×1050×1550	1420×1050×1820	1420×1250×1820	1920×1250×1820
Temperature Range	RT~50°C			
Temperature Range	50um			
Nominal Distance Btw Wire	75um			
Talcum Powder Amount	2kg ~ 4kg/m3			
Shock Time	0~99H59M			
Fan Cycling Time	0 ~ 99H59M			
Specimen Power Socket	Dust-proof socket AC220V 16A			
Controller	Imported programmable controller			
Vacuum System	Equipped with a pressure gauge, air filter, pressure regulator, connecting tube(Vacuum pump as option)			
Circulating Fan	Closed alloy low noise motor, multi-blade centrifugal fan			
Dust Heating System	Stainless steel mica sheet heating jacket			
Safety Device	Electric leakage, short circuit, Over-temperature, motor overheating Over-current protection/ Power-off memory function for controller			
Power Supply	AC380V±10%·50HZ/60HZ			
Remark	Single door or double door as customer requirement			

<sup>·</sup>Permissible environmental condition: temperature (18 to 30°C) and relative humidity > 85% RH.

<sup>·</sup>All data are under ambient temperature 20°C, unload.

## **Ozone Aging Test Chamber**

臭氧老化试验箱 TOLSeries







## Product Introduction

Ozone Aging Test Chamber tests aging cracking of non-metal materials and organic materials(e.g. rubber, coating, plastic). Ozone is the killer of rubber cracking. Ozone aging test chamber simulates and strengthens the ozone content in the atmosphere, it can quickly evaluate rubber products performance against ozone aging to extend rubber products lifespan.

Model	TOL-100	TOL-250	TOL-500	TOL-010
Interior Dimension (W*D*H)mm	450×450×500	600×500×750	800×700×900	1000×1000×1000
Exterior Dimension (W*D*H)mm	870×1050×1560	1020×1120×1810	1250×1320×1950	1450×1600×2080
Temperature Range	0°C ~ 60 °C	0°C ~ 60 °C		
Humidity Range	50%-93%RH			
Temperature Fluctuation	± 0.5°C	± 0.5°C		
Temperature Uniformity	≤2.0°C	≤2.0°C		
Cooling Rate	Ambient temperature to 0°C within 50 min(nonlinear)			
Ozone Concentration	0~500PPHm,0~500PPm,0~1000PPm			
Test Apparatus	Dynamic or Static (Alternative)			
Specimen Holder Rotation	1r/min,360°C			
Air Flow Speed	12~16mm/S			
Specimen Holder Tensile Rate	5%-80%			
Specimen Holder Tensile Frequency	0.5-2 HZ			
Ozone Analysis Meter	Imported analysis meter, 4-20mA output, RS232 communication port			
Heater	U type NiCr heater			
Ozone Generator	Imported silent discharge tube			
Refrigeration System	France "TECUMSEH" hermetic compressor			
Safety Protection	Leakage, short circuit, over-temperature, motor overheat, over-current protection			
Power Supply	AC380V±10%·50HZ/60HZ			

<sup>·</sup>Permissible environmental condition: temperature (18 to 30°C) and relative humidity > 85% RH.

<sup>·</sup>All data are under ambient temperature 20°C, unload.













步入室温湿度试验箱



# Product Introduction

Walk-in test chamber tests the performance of electrical and electronic parts, machine parts, Telecommunication, Aerospace flights by simulating the temperature, humidity, light in the atmosphere, these walk-in chambers are in pieces-assembling structure, support on-site installation, commissioning and training.

#### Details







Model	<b>ІРХ</b> 9К
Interior Dimension	≥10M3
Temperature Range	-20°C,-40°C,-50°C,-70°C+100°C (+150°C)
Humidity Range	20%~98% R.H
Temperature Fluctuation	$\leq \pm 1.0^{\circ} C$
Heating Rate	2.0~3.0°C/min
Cooling Rate	0.7~1°C/min
Temperature Uniformity	$\leq \pm 2.0^{\circ} C$
Controller	TEMI2700 Programmable Touch Screen Controller
Refrigeration	Original Germany imported "Bock" semi-hermetic cascade system compressor
Protection	Leakage and outage, compressor over-pressure, overheat and over-current, water shortage alarm
Power Supply	AC380V±10%·50HZ/60HZ

<sup>·</sup>Permissible environmental condition: temperature (18 to 30°C) and relative humidity > 85% RH.

<sup>·</sup>All data are under ambient temperature 20  $^{\circ}$ C, unload.











# **Walk-in Aging Test Chamber**

#### 步入室老化试验箱







# Product Introduction

Walk-in High Temperature Aging Chamber tests the products adaptability to high temperature environment, widely used in Electronic, Telecommunication, Plastic, Automobiles. It evaluates whether the products' quality match regulated standards, and help manufacturers improve accordingly.

Model	Customized as required	
Temp. Control Range	RT~+80°C	
Temp. Fluctuation	±0.5°C	
Temp. Uniformity	≤ 3.0 °C	
Temp. Bias	$\leq \pm 2.0^{\circ} C$	
Heating Rate	1.0~3.0°C(as required)	
Exterior Material	Color steel plates	
Interior Material	Stainless steel or galvanized steel or as required	
Insulation Material	Superfine fiberglass wool or PU foam	
Base	Skid resistant steel plates or as required	
Heating System	Stainless steel electric heater	
Controller	Japan "Fuji" controller	
Standard Accessories	Glass window, lighting	
Protection Device	Over-temperature protection, leakage protection ,fan overload protection, phase sequence protection	
Optional Accessories	Temperature recorder, smoke alarm, temperature test hole, movable slope platform	
Power Supply	AC220V/380V±10%, 50Hz/60Hz	

<sup>·</sup>Permissible environmental condition: temperature (18 to 30°C) and relative humidity > 85% RH.

<sup>·</sup>All data are under ambient temperature 20°C, unload.

**Test is for your progress** 



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