

Comprehensive Environmental Test System

Description:

The chamber can simulate temperature, humidity and vibration simultaneously to conduct a combined test by matching up with a vibration shaker.

Applied tests: high temperature test, low temperature test, temperature & humidity test, high–low temperature test, high-low temperature & humidity test, environment stress screening test, reliability evaluation and acceptance test.

Features:

- Fast temperature changing rate with maximum mechanical refrigeration rate up to 15°C/min;
- Assisted with a liquid nitrogen refrigeration system, the cooling rate can reach 30 °C/min;
- The electronic expansion valve can control the cooling capacity to realize stepless regulation of temperature, which is energy saving;
- High control precision with fluctuation $\leq 0.5^{\circ}\text{C}$ and temperature deviation $\leq \pm 1.5^{\circ}\text{C}$;



* Main technical parameters (ambient temperature +25 °C and circulate water temperature +25 °C, no specimen)

Model		CW/T0670W5	CW/T1270W5	CW/T2770W5
with humidity-CW		CW/T0670W10	CW/T1270W10	CW/T2770W10
without humidity-CT		CW/T0670W15	CW/T1270W15	CW/T2770W15
Chamber volume (L)		613	1200	2730
Performance	Temperature range	-70 °C ~ +150 °C		
	Humidity range (only humidity type)	(20 ~ 98) %RH/ (20 ~ 85) °C		
	Temp. fluctuation	$\leq 0.5^{\circ}\text{C}$ (according to GB/T5170.2-2008)		
	Temp. deviation	$\pm 1.5^{\circ}\text{C}$		
	Humidity deviation (only humidity type)	$\pm 3.0\%RH$ (humidity > 75%RH), $\pm 5.0\%RH$ (humidity $\leq 75\%RH$)		
	Temperature change rate	5/10/15 °C/min (The whole process is average with standard load , and measured at the control point of inlet area under -55 °C ~ +70 °C)		
	Standard load	15kg aluminium ingots, 350W heating power	50kg aluminium ingots, 700W heating power	100kg aluminium ingots, 1000W heating power
Internal dimensions (mm)	W	800	1000	1300
	H	1100	1200	1500
	D	700	1000	1400
Power supply	380V (three phase four wires + protective grounding wire)			
Condensing method	Water-cooled			



EWJ Series

High/Low Temperature & Humidity Test Chamber

Description:

Environmental simulation chamber for testing materials by simulating conditions at desired temperature and humidity levels

This series of test chambers are designed to meet demanding testing needs while keeping operation efficient and quiet. Each test chamber benefits from a 3D-engineered design that refines the internal structure, airflow system, and cooling performance. These improvements help achieve consistent results, reduce energy consumption, and maintain low noise during operation, making them a dependable choice for temperature and humidity evaluations across different industries.

Our temperature and humidity test chamber models comply with the following standards:

EN IEC 61000-6-2:2019

EN IEC 61000-6-4:2019

EN 61010-1:2010+A1:2019

Typical Test Applications

- High-temperature exposure
- Low-temperature testing
- Constant temperature and humidity conditions
- Alternating high and low temperatures
- Combined temperature and humidity cycling

* For air-cooled models, performance specifications are based on an ambient temperature of +25°C and relative humidity of ≤85% measured with the chamber empty. For water-cooled models, reference conditions are an ambient temperature between +15°C and +35°C, relative humidity of ≤85%, and cooling water temperature of ≤+28°C, also measured without test samples inside the chamber.

Model									
		EW/T0140J	EW/T0240J	EW/T0440J	EW/T1040J	EW/T0180J	EW/T0280J	EW/T0480J	EW/T1080J
with humidity---EW									
without humidity---ET									
Chamber volume (L)		100	200	400	1000	100	200	400	1000
Performance	Temperature range	-40°C ~ +180°C				-80°C ~ +180°C			
	Temperature fluctuation	≤0.5°C							
	Temperature deviation	±1.5°C (≤150°C时) 、 ±2°C (>150°C时)							
	Temperature uniformity	2°C (≤150°C时) 、 3°C (>150°C时)							
	Humidity deviation (only humidity type)	(20~98%)RH / (10~98) °C							
	Relative humidity deviation (only models with humidity control)	±2.0%RH(humidity >75%RH时) , ±3.0%RH(≤humidity75%RH时)							
	Temperature rise rate	-35→+150 °C	-40→+150°C			-70→+150°C			
		≤45min	≤45min		≤60min	≤50min			
Temperature drop rate	+20→-35°C	+20→-40°C			+20→-70°C				
	≤45min	≤40min	≤60min		≤70min				
Internal dimensions (mm)	W	500	500	600	1000	500	500	600	1000
	H	480	730	830	980	480	730	830	980
	D	500	600	800	1000	500	600	800	1000
External dimensions (without protrusion) (mm)	W	700	700	800	1200	700	700	800	1200
	H	1581	1786	1886	2036	1581	1786	1886	2036
	D	1479	1507	1707	1928	1479	1507	1707	1928
Power supply		380V (three phase four wire + protective grounding wire)							
Condensing method		Air-cooled/water-cooled							

QW Series Rapid-Rate Thermal Cycle Test Chamber

Description:

Environmental simulation chamber for tests requiring quick changes of temperature.

With our rapid-rate thermal cycle test chambers, it's possible to create fast and precise temperature transitions that help assess how products handle sudden shifts in climate. The combination of efficient cooling technology and responsive controls supports testing routines that demand both speed and accuracy.

Features:

- Supports rapid temperature shifts, achieving cooling rates up to 15°C per minute with mechanical refrigeration alone. When combined with liquid nitrogen assistance, cooling speeds can reach 30°C per minute.
- Provides precise control, maintaining temperature fluctuation within $\pm 0.5^\circ\text{C}$ and deviation better than $\pm 1.5^\circ\text{C}$ throughout the test cycle.

Our temperature and humidity test chamber models comply with the following standards:

EN IEC 61000-6-2:2019 EN 61010-1:2010+A1:2019

EN IEC 61000-6-4:2019



* For air-cooled models, performance specifications are based on an ambient temperature of $+25^\circ\text{C}$ and relative humidity of $\leq 85\%$ measured with the chamber empty. For water-cooled models, reference conditions are an ambient temperature between $+15^\circ\text{C}$ and $+35^\circ\text{C}$, relative humidity of $\leq 85\%$, and cooling water temperature of $\leq +28^\circ\text{C}$, also measured without test samples inside the chamber.

Model		QW/T0270W/A5T	QW/T0570W/A5T	QW/T1070W2T	QW/T2470W2T	
with humidity----QW		QW/T0270W/A10	QW/T0570W10T	QW/T1070W5T	QW/T2470W5T	QW/T12065W5
without humidity---QT		QW/T0270W/A15	QW/T0570W15T	QW/T1070W10T	QW/T2470W10T	QW/T12065W10
		T	T	QW/T1070W15T	QW/T2470W15T	
Chamber volume (m ³)		0.21	0.5	1.0	2.36	12.6
Performance	Temperature range	-70°C ~ +150°C (180°C)				-65°C ~ +125°C (180°C)
	Humidity deviation (only humidity type)	(20 ~ 98)%RH/(20 ~ 85)°C				
	Temperature fluctuation	$\leq 0.5^\circ\text{C}$				$\leq 0.6^\circ\text{C}$
	Temperature deviation	$\pm 1.5^\circ\text{C}$				$\pm 2.0^\circ\text{C}$
	Relative humidity deviation (only models with humidity control)	$\pm 3.0\%RH$ (humidity > 75%RH), $\pm 5.0\%RH$ (humidity $\leq 75\%RH$)				
	Temperature change rate (mechanical cooling)	2/5/10/15°C/min (average under standard load condition over the range of -55°C to +70°C/85°C measured at air inlet)				
Standard load		12.5kg aluminum ingot	15kg aluminum ingot	50kg aluminum ingot	100kg aluminum ingot	200kg steel
Internal dimensions (mm)	W	600	800	1000	1300	2000
	H	700	900	1000	1300	2100
	D	500	700	1000	1400	3000
Power supply		380V (three phase four wire + protective grounding wire)				
Rated power (KW)		W5:19 / A5:20 W10:22 / A10:25 W15:25 / A15:28	W5:25 / A5:25 W10:36 / W15:47	W2:27 / W5:43 W10:56/W15:77	W2:37 / W5:56 W10:85/W15:115	W5:105/W10:160
Condensing method		Air-cooled/water-cooled (Models ending with "A" indicate air-cooled units, while those ending with "W" are water-cooled. For example: QT0270A5 is an air-cooled model, and QT0270W5 is a water-cooled model.)				
Chamber door		Single hinged door				Double hinged doors