



ONE-STOP TESTING SOLUTION SUPPLIER

High-efficiency, energy-saving, and environmentally-friendly



KUNSHAN DANBO INSTRUMENT CO., LTD

ABOUT US

Founded in 2012 and headquartered in Suzhou, **Danble** is a leading innovator specializing in the R&D, manufacturing, and sales of environmental test equipment and laboratory testing solutions.

We offer a full range of standard and custom-designed temperature test chambers which can aid reliability testing by subjecting products to real-world climate and wear extremes like temperature, humidity, altitude, vibration, and more.

Over the past decade, we have built a robust reputation for delivering high-performance, reliable testing systems across diverse industries, including new energy, photovoltaics, automotive, 3C electronics, aerospace, and third-party testing.

10000 +
Facility

100+
Sets/M

60+
Patents

13 years
Experience

110+
Employees

1000+
Clients



LOW-PRESSURE TEMEPRATURE TEST CHAMBER

Support Non-standard Customization

This chamber is designed to enable users to conduct temperature and altitude condition tests within a combined testing chamber, creating multiple simultaneous conditions to meet diverse testing requirements. This equipment is crucial for the testing applications of satellites, rockets, airplanes, or helicopters, as modern aircraft experience significant pressure during operation



Temperature and humidity range
-70°C-150°C
20%RH-95%RH

Heating and cooling rate
Heating : 1-3°C/min
Cooling: 0.7-1.0°C/min

Standard volume
150L 252L 512L
1000L

Main Technical Parameters

TYPE	DBTL-150	DBTL-252	DBTL-512	DBTL-1000
Internal Size (W*D*H mm)	500×500×600	600×600×700	800×800×800	1000×1000×1000
External Size (W*D*H mm)	870×1700×1750	970×1800×1850	1170×2000×1950	1470×2200×2150
Altro-Low Temperature	A: 0°C B: -20°C C:-30°C D: -40°C E: -55°C F: -70°C			
Humidity Range	20%RH~95%RH (standard atmospheric pressure)			
Heating Rate/Cooling Rate	1~3°C/min 0.7~1°C/min (standard atmospheric pressure)			
Temperature Resolution	0.1°C			
Temperature Fluctuation	≤±0.5°C (standard atmospheric pressure)			
Temperature Uniformity	≤2°C (standard atmospheric pressure)			
Pressure Reduction Rate	≤15s (75.2kPa~18.8kPa) ≤30min(std atmospheric perssure~1kPa)			
Pressure-resistance Method	Internal pressure resistance			
Door Sealing	Double-layer O-shaped solid silicone rubber sealing strip			
Insulation Material	Vacuum Insulation Composite Pressure-bearing Panel			
Cooling Method	Water Cooling			
Internal Material	SUS304			
External Material	SPCC+Power Coating			
Insulation Material	Glass Wool+ Phenolic Foam Board/ Rock Wool+ Phenolic Foam Board			
Refrigerant	R404A / R23			
Standard Reference	GB/T 2423.1;GB/T 2423:2;GB/T 2423:3;GB/T 2423:4;GB/T 5170:2; GB/T 5170:5; GB/T 11158; GB/T 10589; GB/T 10592; GB/T 10586; IEC60068-3-5			

TWO-ZONE THERMAL SHOCK TEST CHAMBER

Support Non-standard Customization

This series adopts a structure of cold and hot zones and utilizes a bucket rapidly transforming specimens to the test area. It allows endurance tests of over 1,000 cycles to be run without defrosting. This shock mode reduces thermal load during cold and hot impact and shortens temperature recovery time to the greatest extent.



Temperature Shock Range
-65°C~ + 180°C

Basket Switching
Vertical Lifting /Horizontal Sliding

Standard Volume
48L 80L
150L 245L

Main Technical Parameters

TYPE	DBST-48	DBST-80	DBST-150	DBST-245
Internal Size (W*D*H mm)	400×400×300	500×400×400	600×500×500	700×700×500
External Size(W*D*H mm) Lifting basket	1400×2550×1850	1500×2550×2050	1600×2650×2250	1700×2850×2250
External Size(W*D*H mm) Lateral Lifting basket	2300×1500×2100	2500×1500×2200	2700×1700×2300	2900×1900×2300
Pre-heating Zone Heating Rate	+ 60°C~ + 220°C			
Heating-Time	+ 60°C→ + 220°C ≤45min			
Pre-cooling Zone cooling Rate	-80°C~ + 0°C			
Cooling Time	+ 20°C→-80°C ≤45min			
Temperature Fluctuation	≤±0.5°C			
Temperature Shock Range	A:-20°C ~ + 180°C B: -40°C~ + 180°C C: -55°C~ + 180°C D: -65°C~ + 180°C			
Basket Transfer Time	≤10S			
Recovery Time	1min~5min			
Dwell Time	15~60min			
Temperature Resolution	0.1°C			
Temperature Uniformity	≤2°C			
Standard Reference	JESD22-A106B; GJB-150-A; MIL-STD-810G; MIL-STD-202G			

TEMP/HUMID/VIBRATION TEST CHAMBER

Support Non-standard Customization

Combined with temperature, humidity and vibration functions, it can be applied to the performance indicators of aerospace products, auto parts, electronic information instruments and other samples under harsh comprehensive conditions.



Temperature+Humidity+
Vertical/Horizontal Vibration

-70°C~+150°C
10%RH~98%RH



Heating and Cooling Rate

Heating up : 1.0~3.5°C/min
Cooling : 0.7~1.2°C/min
Rapid Temperature Change:
1~30°C/min



Comprehensive Test
Temperature + Humidity
+ Vertical Vibration
Temperature + Humidity
+ Horizontal Vibration

Main Technical Parameters

TYPE	DBSH-1000	DBSH-1700	DBSH-3375
Internal Size (W*D*H mm)	1000×1000×1000	1200×1200×1200	1500×1500×1500
External Size (W*D*H mm)	1270×2700×1200	1470×2900×1400	1770×3400×1700
Temperature range	-70℃ ~ + 150℃		
Humidity range/Resolution	10%~98%R.H	0.1%R.H	
Temperature Fluctuation/Uniformity	≤±0.5℃	≤2℃	
Humidity Deviation	±3%RH (> 75%RH) , ±5%RH (≤75%RH)		
Heating rate	1.0~3℃/min ; Rapid 3~30℃/min		
Cooling rate	0.7~1.0℃/min ; Rapid 1~30℃/min		
Internal/External Material	SUS304	SPCC+Power Coating	
Temperature Deviating/Resolution	≤2℃	0.1℃	
Cooling Method	Water-cooling		
Chamber Moving Mechanism	Portal Frame		
Insulation Material	Glass Wool+ Phenolic Foam Board/ Rock Wool+ Phenolic Foam Board		
Refrigerant	R404A、R23		
Standard Reference	GB/T 2423.1;GB/T 2423.2;GB/T 2423.3;GB/T 2423.4;GB/T 5170.2; GB/T 5170.5; GB/T 11158; GB/T 10589; GB/T 10592; GB/T 10586; IEC60068-3-5		

CONSTANT TEMPERATURE (HUMIDITY) TEST CHAMBER

Support Non-standard Customization

This series of test chamber can simulate various extreme environments to test products. It has wide temperature & humidity range and high control accuracy, and can meet the GB and IEC related test standards.



Temperature and
Humidity Range

-70°C~180°C
10%RH~98%RH



Heating and
Cooling Rate

Heat: 1-3°C /min
Cooling: 0.7-1.2°C/min



Volume

135L 252L 504L
720L 960L 1000L

Main Technical Parameters

TYPE	DBH-135	DBH-252	DBH-504	DBH-720	DBH-960	DBH-1000
Internal Size (W*D*H mm)	500×450×600	600×600×700	800×700×900	900×800×1000	1200×800×1000	1000×1000×1000
External Size (W*D*H mm)	780×1500×1720	900×1780×1750	1080×1880×1870	1180×1980×1970	1380×1980×1970	1350×2200×1970
Temperature range	A: 0 °C B: -20 °C C: -30 °C D: -55 °C F:- 70 °C					
Humidity range	10%~98% R.H					
Temperature Accuracy	0.1°C					
Temp Fluctuation	≤±0.5°C					
Temperature Uniformity	≤2°C					
Heating rate/Cooling rate	1.0-3.0°C/min / 0.7-1.2°C/min					
Humidity Accuracy	0.1%RH					
Humidity Deviation	±3.0%RH (> 75%RH) ; ±5.0%RH (≤75%RH)					
Noise	≤69bB					
Refrigerant	R404A / R23 / R508B					
Power	AC380V±10% 50Hz±10% Three-phase, five wire system					
Standard Reference	GB/T 2423.1;GB/T 2423.2;GB/T 2423.3;GB/T 2423.4;GB/T 5170.2; GB/T 5170.5; GB/T 11158; GB/T 10589; GB/T 10592; GB/T 10586; IEC60068-3-5					

SEMICONDUCTOR
TEMPERATURE TEST CHAMBER



SEMICONDUCTOR TEMPERATURE TEST CHAMBER

▼ Support Non-standard Customization

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Semiconductor Refrigeration Technology
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Energy-Saving 1kWh
- 

Space-Saving 30%
- 

Low Noise ≤50dB
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Low Heat Dispersion

TEMPERATURE	FIXED FREQUENCY COOLING	COMPRESSOR REFRIGERATION	SEMICONDUCTOR REFRIGERATION
0℃ Constant	2.0 kWh	1.5 kWh	1.4 kWh
25℃ Constant	1.5 kWh	1.0 kWh	0.4 kWh
45℃ Constant	1.5 kWh	1.0 kWh	0.5 kWh
60℃ Constant	1.2 kWh	1.2 kWh	0.7 kWh

Note: The above data are based on a 1-hour constant test with the chamber size of W1000×D600×H650 (mm)

▼ Main Technical Parameters

ITEM	PARAMETERS
Interior Dimension (W*D*H mm)	2*W1000*D600*H650 mm
Exterior Dimension (W*D*H mm)	W1140*D1200*H1790 mm
Temperature Range	-10℃~+80℃
Temp Uniformity	≤2.0℃ (50℃~80℃, Loading 30kg aluminum)
Temp Constancy	≤1.3℃ (-5℃~50℃, Loading 30kg aluminum)
Temperature Fluctuation	≤±0.2℃ (Full range, with load of 30kg aluminum)
Power Supply	380V, 50Hz, 3/N/PE
Power	5.5kW
Cooling Method	Air cooling
Equipment Weight	About 600kg

ONE TO FOUR TEMPERATURE TEST CHAMBER

PATENT No.: ZL202410471932.8



ONE TO FOUR TEMPERATURE TEST CHAMBER

Support Non-standard Customization

- Four independent zones test chambers with synchronized control, enabling parallel testing under various environmental conditions.
- Low energy consumption with one total cooling system, reducing power usage by up to 40%~50%.
- Capable of simultaneously testing four independent samples, significantly improving efficiency.



Cost Efficiency



Space-Saving



High-Throughput Testing

Main Technical Parameters

ITEM	PARAMETERS
Interior Dimension (W*D*H mm)	W800*D600*H600 mm *4
Exterior Dimension (W*D*H mm)	W2085*D1840*H1920 mm
Temperature Range	-40~+150 ℃
Temp Uniformity	≤2 ℃
Heating Rate	1~3℃/min
Cooling Rate	0.7~1 ℃/min
Energy consumption	Four-20℃ constant 8.2<12kWh
	Four-25℃ constant 3.5<7.2kWh
	Four-45℃ constant 3.2<6.4kWh

	COOLING PERFORMANCE
Extreme load condition	Three compartments -40 ℃ One compartment -35 ℃ (with a load of 15kg aluminum)
Recommended load conditions	Three compartments -30 ℃ One compartment -40 ℃ (with a load of 20kg aluminum)



OUR ADVANTAGES

DECADE-LONG TECHNICAL ACCUMULATION



Over 13 years of R&D experience, covering mechanical, cooling & heating, electrical engineering, testing and mastered precision temperature control technologies, multi-stage refrigeration systems

INDUSTRY-SPECIFIC CUSTOMIZATION



Industry Expertise in new energy, photovoltaics, automotive, 3C electronics, aerospace, and third-party testing.

COMPLIANCE & CERTIFICATIONS



IEC60068-3-5; IEC 62619
GB/T 2423; GB/T 5170
ISO9001/ISO14001/CE

VERTICAL INTEGRATION & QUALITY ASSURANCE



80% of production processes In-House Manufacturing

COMPREHENSIVE POST-SALE SUPPORT



24/7 Remote Diagnostics
Custom training
Customer feedback integration

COST EFFICIENCY & SUSTAINABILITY



Energy Recovery and Lifecycle Support

OUR CLIENTS



TIKTOK

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