



*TECHNICAL SPECIFICATIONS*

## Model: WGD405



### 1. Main Technical Parameters

Model	WGD405
1.1 Test Area Size (DxWxH)	700 × 800 × 900 mm
1.2 External Size (DxWxH)	1330 × 1220 × 1900 mm
1.3 Temperature Range	- 40 ~ +150℃
1.4 Temperature Fluctuation	±0.5℃
1.5 Controller	LED touch screen programmable controller
1.6 Test Data Record	Test data is downloaded to user's U disk
1.7 Operation mode	Fix & Programmable & Cycling
1.8 Refrigerating Mode	Air cooling
1.9 Power	380V±38V, 50Hz, 3P, 5Kw

## 2. Heating System

2.1 Heating controlling component	SSR solid-state relay
2.2 Heater	Nickel-chromium alloy heating wire, and electric relay with over-heat protection

## 3. Chamber Structure

3.1 External Material	SPCC cold-rolled electrostatic sprayed steel plate
3.2 Test area material	BAO STEEL SUS304 stainless steel plate
3.3 Insulation material	Superfine glass wool
3.4 Door	Single-door, flat handlebars
3.5 Door seal	Resistant-to-high-temperature silicone rubber
3.6 Door window	An automatically defrosting vacuum view window
3.7 Lamp	One proof-defrost light
3.8 Shelf	2 movable stainless shelves
3.9 Port hole	Diameter 50 mm port hole on left side
3.10 Wheel	4 wheels with brakes

## 4. Refrigerating System

4.1 Compressor	<i>TECUMSEH</i> totally-closed hermetic Compressor imported from France 
4.2 Refrigerant	<i>DUPONT</i> R404a environmentally friendly refrigerant 
4.3 Refrigerating Mode	Air-cooling
4.4 Evaporator	Domestically-made evaporative condenser
4.5 Condenser	Domestically-made condenser
4.6 Other refrigerating components	expansion relief valve electromagnetic control valve

	drying filter
	pressure controller and pressure controller

## 5. Air Circulation System

5.1 Blower	Stainless steel long-axial fan
5.2 Air circulation	Blown into test area from the bottom and blown out from fan

## 6. Controlling System (Controller)

### 6.1 Temperature Controller

The temperature controller is **LCD-Touch-Screen** temperature controller. It has also the PID function of the controller can automatically control the temperature and correct the deviations. It can store the test data as well.

6.2 Controller Language	<b>English, Chinese and digits</b>
6.3 Display of controller	target temperature
	real temperature
	operating time
	alarm
	program curves

6.4 Setting Accuracy	..... Temperature:0.1℃ Time:1min
6.5 Operating mode	<b>Constant and programmable</b>
6.6 Program Volume	Maximum 180 programs Each program has maximum 99 steps, each step has maximum 99 hours 59 minutes Each program can be linked or cycled together

7. Test Data Record	
7.1 USB	Test data is continuously downloaded to <b>USB</b> disk. Test data includes target temperature, actual temperature and the operating time.
7.2 Ethernet port	User can monitor, start and stop the chamber on PC through Ethernet port.

8. Measuring System	
8.1 Temperature sensor	Pt100 platinum resistance temperature sensor
8.2 Other controlling components	SIEMENS <i>AC contactor</i> ; <i>OMRON</i> relay; <i>Delixi</i> breaker; .....

9. Safety device	
(1)	Over-heat protection
(2)	Over-pressure of fan protection
(3)	Over-load of compressor protection
(4)	Short-circuit protection
(5)	Lack phrase protection

(6) Ground protection

(7) Water-shortage alarm

(8) Leakage protection

## 10. Operation Ambient Condition

10.1 Power Supply 380V±38V, 50Hz, 3P

10.2 Ambient temperature 5 ~ 30°C

10.3 Ambient ≤85%R.H

10.4 No Inflammable, explosive, volatible, corrosive goods, and the goods that might release dangerous gas shall be close to the chamber.

10.5 The chamber shall be placed in a lab with good air ventilation. At least 1 m space around the chamber shall be left for ventilation, operation and maintenance.