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**FAITHFUL**<sup>®</sup>

Professional Laboratory Apparatus Manufacturer  
Professional Service Teams

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## FAITHFUL INSTRUMENT (HEBEI) CO.,LTD

Add: Faithful Technology Park, No.26 Road, East Development  
Zone, Huanghua, Cangzhou, Hebei Province, China  
061100

Sales: 0086-317-5337349

FAX: 0086-317-5338349

P.O.:061100

E-mail: [info@faihtful.cc](mailto:info@faihtful.cc)

Service E-mail: [service@labinstrument.cn](mailto:service@labinstrument.cn)

Website: [www.faihtful.cc](http://www.faihtful.cc)



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Entrepreneurial spirit: pragmatic, professional, innovative, high-quality  
 Development strategies: people foremost, technology based, market oriented  
 Behavior idea: sincere cooperation, enthusiastic service  
 Management idea: generous honesty, mutual benefit, develop together  
 Service idea: responsible for brand, always satisfy customers



Every laurel will accompany each step of Faithful's development  
 But Faithful always think that the honor belongs to the yesterday  
 Not represents today and tomorrow  
 The current honors only the reason for us to reach new height  
 Faithful will always make effort for better tomorrow



**FAITHFUL**<sup>®</sup>  
 FAITHFUL INSTRUMENT (HEBEI) CO., LTD

Leap over the pinnacle  
 We occupy the first-class devices  
 Elaborately Create  
 we have the advantage of first-class brand



# COMPANY INTRODUCTION

Faithful  
Instrument (Hebei) Co.,Ltd

Faithful Instruments (Hebei) Co., Ltd. was founded in 2011. The main production of laboratory equipment and medical equipment, the products in domestic and foreign research institutes and university laboratories have been widely used. After ten years of development, the company has become a collection of research and development, production, sales as one of the group high-tech enterprises.

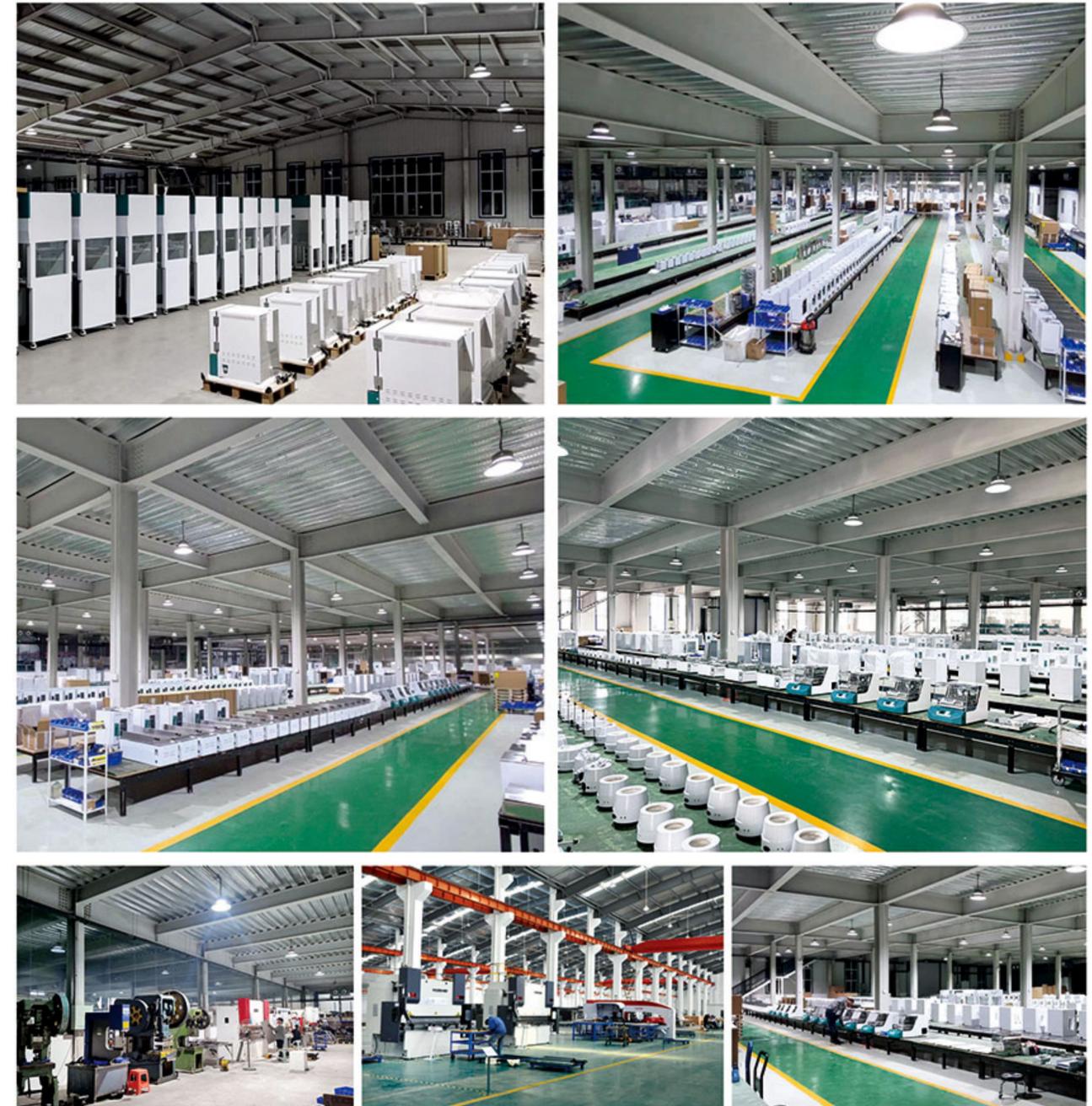
The new factory with a total investment of 120 million yuan, the standard factory of 20,000 square meters, the company has more than 100 employees, an annual output of more than 30,000 sets of various series of finished products, can achieve an annual output value of 100 million yuan, and achieve export earnings of 10 million US dollars.

The company has passed ISO9001 quality system certification and EU CE certification. The main products include: drying oven, incubator, cooling incubator, shaker, muffle furnace, laminar flow cabinet, constant temperature and humidity incubator, climate chamber with humidity control plant growth chamber, climate chamber with illumination, heating magnetic stirrer, heating mantle, water bath, water tank, heating plate, etc.

While actively developing the domestic market, we are more committed to the development of the international market. At present, there are more than one hundred agents all over the world, including Germany, France, Poland, Russia, the Netherlands, Turkey, Japan, South Korea, Malaysia, the United States, Mexico, Iraq, etc.



## ADVANCED PRODUCTION EQUIPMENT



# CONTENTS

## Drying Ovens

- Forced Air Drying Oven ..... 01
- Constant-temperature Drying Oven ..... 02
- Horizontal Drying Oven ..... 03
- Horizontal Drying Oven (Anti-corrosive Type)..... 04
- Hot Air Sterilizing Drying Oven..... 05
- Portable Drying and Sterilizing Oven ..... 06
- Drying oven/Incubator (Double function)..... 07
- Vacuum Drying Oven ..... 08
- Precision Vacuum Drying Oven ..... 09
- Automatic Precision Vacuum Drying Oven ..... 10
- Big Forced Air Drying Oven ..... 11
- Desktop Constant-temperature Drying Oven/Incubator..... 12
- 500°C/600°C High Temperature Forced Air Drying Oven ..... 13

## Incubators

- CO2 Incubator ..... 14
- Constant-Temperature Incubator ..... 15
- High Precision Constant Temperature Incubator ..... 16
- Constant-temperature Incubator ..... 17
- Portable Incubator ..... 18

## Cooling Incubators

- Precision Cooling Incubator/BOD Incubator Refrigerated Incubator ... 19
- 10°C Cooling Incubator/BOD Incubator Refrigerated Incubator ... 20
- Cooling Incubator/Refrigerated Incubator/ Bod Incubator ... 21
- Mould Cultivation Cabinet ..... 22
- Constant Temperature and Humidity Incubators ..... 23
- Climate Chamber With Illumination ..... 24
- Climate Chamber with Humidity Control Plant Growth Chamber ... 25

## Shakers

- Semiconductor Refrigeration Incubator/Peltier Incubator ..... 26
- Vertical Constant Temperature Shaker (LCD) ..... 27
- Desktop Constant Temperature Shaker(LCD) ..... 28
- Multifunctional Water Baths Shaker ..... 29
- Constant Temperature Shaking Incubator ..... 30
- Orbital Shaker ..... 31

## Ceramic Fiber Muffle Furnace

- 1200°C Ceramic Fiber Muffle Furnace ..... 32
- 1600°C Ceramic Fiber Muffle Furnace ..... 33
- 1700°C Ceramic Fiber Muffle Furnace ..... 34

## Laminar Flow Cabinets

- New Laminar Flow Cabinet ..... 35
- Mini Laminar Flow Cabinet/Mini Fume Hood ..... 36

- Laminar Flow Cabinet (Desktop Type) ..... 37
- CLASS II A2 Biosafety Cabinet ..... 38

## Magnetic Stirrers

- Magnetic Stirrer ..... 39
- Ceramic Magnetic Stirrer ..... 40
- Overhead Stirrer ..... 41
- Mini Magnetic Stirrer ..... 42
- Four Rows Magnetic stirrer ..... 42

## Heating Mantles

- Electronic Control Heating Mantle ..... 43
- Magnetic Stirring Heating Mantles ..... 43
- Digital Display Heating Mantle ..... 44
- Digital & Magnetic Stirring Heating Mantles ..... 44
- Several Rows Magnetic Stirring Heating Mantles ..... 45
- Hot Plate ..... 45
- New Hot Plate, Graphite Hot Plate ..... 46

## Water Bath, Water Tank

- Thermostatic Water Baths ..... 47
- Thermostatic Water Baths(Stretching Inner Chamber) ... 48
- Transparent Water Bath ..... 49
- Thermostatic Water Baths ..... 50
- Thermostatic water tank (Stretching Inner Chamber)..... 51
- Big Size Water Baths ..... 52

## Ultrasonic Cleaner

- Ultrasonic Cleaner Digital Model,With Timer And Heater ..... 53
- Ultrasonic Cleaner Digital Series, With timer..... 53

## Steam Sterilizer, Water Distiller

- Portable Pressure Steam Sterilizer ..... 54
- Portable Pressure Steam Sterilizer ..... 54
- Portable Pressure Steam Sterilizer ..... 54
- Vertical Pressure Steam Sterilizer ..... 55
- Stainless Steel Water Distiller (Automatic Control Type) ..... 56

## Other Product Series

- FSF-300 Basic Power Supply ..... 56
- FSF-600 Basic Power Supply ..... 57
- FSF-300C Universal Power Supply ..... 57
- FSF-600C Universal Power Supply ..... 57
- FSF-SPAT Horizontal Electrophoresis Cell ..... 58
- FSF-SPBT Horizontal Electrophoresis ..... 58
- Mini-Protean Vertical Electrophoresis Cell FSF-SCZ2+ ..... 59
- Mini-Protean Electrophoresis Cell FSF-SCZ4+ ..... 59
- Digital Centrifuge FLC-04R-C ..... 60
- Digital Tabletop Low Speed Centrifuge ..... 60

# Forced Air Drying Oven

Used for drying, baking, wax, heat treatment.

### Characteristics:

- Horizontal air circularly by double air ducts, high efficiency and high uniformity.
- PID controller, with over-temperature protection function.
- With fan switch,LED digital display,high temperature blast motor.
- New anti-hot handle

WGLL-BE series have the following characteristics other than the above functions.

- LCD temperature controller.
- 4 grades speed fan, adjustable for different requirements.
- Over-temperature protection system.
- High precision digital independent temperature limiter.
- 304:SUS304 Stainless Steel Body.
- WGLL-230BE and WGLL-625BE don't have fan switch.



Patent No. : ZL 2018 3 0094606.5

### Main Technical Parameters:

Model	WGL-30B	WGL-45B	WGL-65B	WGL-85B	WGL-125B	WGL-230B	WGL-625B	
	WGLL-30BE	WGLL-45BE	WGLL-65BE	WGLL-85BE	WGLL-125BE	WGLL-230BE	WGLL-625BE	
		WGLL-30BE(304)	WGLL-45BE(304)	WGLL-65BE(304)	WGLL-85BE(304)	WGLL-125BE(304)	WGLL-230BE(304)	
Function	Forced convection							
Temp. Range	RT+10~300°C							
Temp. Resolution Ratio	0.1°C							
Temp. Motion	± 1°C							
Temp. Uniformity	± 2.5%							
Structure	Mirror Stainless Steel							
Inner Chamber	Cold rolling steel electrostatic spraying exterior / 304:SUS304							
Outer Shell	High quality rock wool board(with CE)							
Insulation Layer	Stainless steel heater							
Heater	Stainless steel heater							
Power Rating	0.8kW	1.2kW	1.6kW	2.0kW	2.3kW	3.0kW	4.0kW	
Exhaust Hole	φ 35mm top(with function of test hole)					Rear exhaust	φ 63mm top	
Controller	Two temperature section PID intelligent							
Temp. Control Mode	Touch button setting							
Temp. Setting Mode	B model: Measuring temperature: display on the four digital tubes upper row, setting temperature: display on the lower row							
Temp. Display Mode	BE model: Measuring temperature display on upper LCD screen, setting temperature display on the lower row							
Timer	0-9999min(with timing wait function)							
Operation Function	Fixed temperature operation, timing function, auto stop.							
Additional Function	B model: Sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory							
	BE model: High precision digital independent temperature limiter,4 grades 3 speed adjustable-speed fan (230 and 625 model BE without fan speed adjustor), sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory							
Sensor	PT100							
Safety Device	B type:Over temperature sound-light alarm; BE type: Digital Independent Temp. limiter, Over temperature sound-light alarm.							
Specification	Inner Chamber Size(W*L*H)(mm)	310*310*310	350*350*350	400*360*450	450*420*450	500*450*550	600*500*750	760*660*1250
	Exterior Size (W*L*H)(mm)	450*500*690	490*540*730	540*550*830	590*610*830	640*640*930	735*835*1115	902*942*1739
	Packing Size (W*L*H)(mm)	540*575*855	580*615*895	635*625*995	680*685*1000	710*730*1100	857*885*1287	1032*1009*1925
	Volume	30L	45L	65L	85L	125L	230L	625L
	Max. Shelf Number	5	6	8	8	11	17	11
	Load Per rack	15kg						
	Shelf Space	40mm					35mm	100mm
	Power Rating (50/60HZ)	AC220V/3.6A	AC220V/5.5A	AC220V/7.2A	AC220V/9.0A	AC220V/10.5A	AC220V/13.6A	AC380V/6.0A
	NW/GW (kg)	33/37	37/43	44/49	50/56	60/66	94/120	150/190
Accessory	Shell	2						
	Shell Frame	4						
optional accessories	B type: Spare shelf, BE type: Spare shelf, RS485 interface, printer, Program controller, U-disk storage; 3.5-inch color touch screen temperature controller.							

## Constant-temperature Drying Oven

○Used for drying, baking, heat treatment .

### Characteristics:

- In the workroom, the hot air is convective naturally and cyclically.
- PID micro-computer intelligent temperature controller with functions of over-temperature protection.
- Standard highlight LED instrument running light.
- New anti-hot handle.

**WHLL-BE series have the following characteristics other than the above functions.**

- LCD temperature controller.
- Over-temperature protection system.
- High precision digital independent temperature limiter.



Patent No. : ZL 2018 3 0094606.5

### Main Technical Parameters:

Model	WHL-30B	WHL-45B	WHL-65B	WHL-85B	WHL-125B
	WHLL-30BE	WHLL-45BE	WHLL-65BE	WHLL-85BE	WHLL-125BE
Cycle Mode					
Natural convection					
Function	Temp. Range				
	RT+10~300℃				
	Temp. Resolution Ratio				
	0.1℃				
Temp. Motion					
± 1℃					
Temp. Uniformity					
± 3.5%					
Structure	Inner Chamber				
	Mirror Stainless Steel				
	Outer Shell				
	Cold rolling steel electrostatic spraying exterior				
	Insulation Layer				
High quality rock wool board(with CE)					
Heater					
Nickel chromium alloy heating wire					
Power Rating					
0.8kW      1.2kW      1.6kW      2.0kW      2.5kW					
Exhaust Hole					
φ 35mm top(with function of test hole)					
Controller	Temp. Control Mode				
	Two temperature section PID intelligent				
	Temp. Setting Mode				
	Touch button setting				
	Temp. Display Mode				
	B model: display on LED				
	BE model: display on LCD				
	Timer				
0-9999min(with timing wait function)					
Operation Function					
Fixed temperature operation, fixed timing operation, auto stop.					
Additional Function					
B model: Sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory					
BE model: High precision digital independent temperature limiter. sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory					
Sensor					
PT100					
Safety Device					
B type: Over temperature sound-light alarm;					
BE type: Digital Independent Temp. limiter, Over temperature sound-light alarm.					
Specification	Inner Chamber Size(W*L*H)(mm)				
	310*310*310	350*350*350	400*360*450	450*420*450	500*450*550
	Exterior Size (W*L*H)(mm)				
	460*510*695	500*550*735	550*550*840	590*610*830	636*680*915
	Packing Size (W*L*H)(mm)				
	540*575*855	580*615*895	635*625*995	680*685*1000	710*730*1100
	Volume				
30L	45L	65L	85L	125L	
Shelf Number					
5	6	8	8	11	
Load Per Rack					
15kg					
Shelf Space					
40mm					
Accessory	(50/60HZ)Current Rating				
	AC220V/3.6A	AC220V/5.5A	AC220V/7.2A	AC220V/10.5A	AC220V/10.5A
NW/GW (kg )					
33/37	37/43	44/49	50/60	60/66	
Shelf					
2					
Shelf Frame					
4					
Optional Accessories					
B type: Spare shelf; BE type: Spare shelf, RS485 interface, printer, Program controller, U-disk storage; SUSS304 body, 3.5-inch color touch screen temperature controller.					

## Horizontal Drying Oven

○High precision and large density sample drying treatment.

### Characteristics:

- Horizontal air type, high space utilization and good temperature uniformity.
- 101: Forced fan cooling intake structure, the maximum working temperature <50 ℃, the fan long-term longevity operation.
- 202:Classical natural convection drying method.
- New anti-hot handle.



Patent No. : ZL 2018 3 0094606.5

### Main technical parameters:

Model	101-0A/101-0AB	101-1A/101-1AB	101-2A/101-2AB	101-3A/101-3AB
	202-0A/202-0AB	202-1A/202-1AB	202-2A/202-2AB	202-3A/202-3AB
Cycle Mode				
101 means Forced convection; 202 means Natural convection				
Function	Temp. Range			
	RT+10~250℃			
	Temp. Resolution Ratio			
	0.1℃			
Temp. Motion				
± 1℃				
Temp. Uniformity				
101 model ± 2.5%, 202 model ± 3.5%				
Structure	Inner Chamber			
	B model:High quality stainless steel;			
	without B model:High strength galvanized sheet			
	Outer Shell			
	Cold rolling steel electrostatic spraying exterior			
Insulation Layer				
High quality rock wool board(with CE)				
Heater				
101 model with Stainless steel electric heating tube;				
202 model with Nickel chromium alloy heating wire				
Power Rating				
1.2kW	1.6kW	2.3kW	3.0kW	
Exhaust Hole				
φ 35mm top(with function of test hole)				
Controller	Temp. Control Mode			
	Two temperature section PID intelligent			
	Temp. Setting Mode			
	Touch button setting			
	Temp. Display Mode			
	LED Digital display			
Timer				
0-9999min(with timing wait function)				
Operation Function				
Fixed temperature operation, fixed timing operation, auto stop.				
Additional Function				
Sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory				
Sensor				
PT100				
Safety Device				
Over temperature sound-light alarm				
Specification	Inner Chamber Size(W*L*H)(mm)			
	350*350*350	450*350*450	550*450*550	600*500*750
	Exterior Size (W*L*H)(mm)			
	652*472*587	752*472*687	852*572*786	902*622*986
	Packing Size (W*L*H)(mm)			
	745*605*745	845*605*850	945*705*950	955*755*1150
	Volume			
	43L	71L	136L	225L
	Max Shelf Number			
	9	13	17	25
	Load Per Rack			
	15kg			
Shelf Space				
25mm				
(50/60HZ)Current Rating				
AC220V/5.5A	AC220V/7.3A	AC220V/9.1A	AC220V/13.6A	
NW/GW (kg )				
40/46	45/50	62/68	77/96	
Accessory	Shelf			
	2			
Shelf Frame				
4				
Optional Accessories				
Shelves				

## Horizontal Drying Oven (Anti-corrosive Type)

○ Used to High precision and large density sample drying treatment

### Characteristics:

- Horizontal air type, high space utilization and good temperature uniformity.
- SUS304 seal motor, Forced fan cooling intake structure, the maximum working temperature <50°C, so that the fan can run for a long time.
- SUS316 inner chamber and shelves, ensure the Anti-corrosion.
- New Anti-hot handle.



### Main technical parameters:

Model	101-43F	101-71F	101-136F	101-225F	
<b>Circulation Mode</b>	Forced Convection				
<b>Function</b>	Used Temp.Range	RT+10-250°C			
	Temp.Resolution	0.1°C			
	Temp.Fluctuation	± 1°C			
	Temp.Uniformity	± 2.5%			
<b>Structure</b>	Inner Chamber	SUS316 stainless steel			
	Outer Shell	Cold rolling steel electrostatic spraying exterior			
	Insulation Layer	High quality rock wool board(with CE)			
	Heater	Stainless steel electric heating tube			
<b>Controller</b>	Power Rating	1.2kW	1.6kW	2.3kW	3.0kW
	Exhaust Hole	Exhaust Hole φ 35mm top(with function of test hole)			
	Temp. Control Mode	Two Temperature Section PID Intelligent			
	Temp. Setting Mode	Touch button setting			
	Temp. Display Mode	Measuring Temperature: Display on the upper row; Setting Temperature: Display on the lower row (LED)			
	Timer	0-9999min(with timing wait function)			
	Operation Function	Fixed Temperature Operation, Timing Function, Auto Stop			
	Additional function	Sensor Deviation Correction, Temperature Overshoot Self-tuning, Internal Parameter Locking, Power-Off Parameter Memory			
	Sensor	pt100			
	<b>Safety Device</b>	Over Temperature Sound-light Alarm			
<b>Specification</b>	Inner Chamber Size(W*L*H)(mm)	350*350*350	450*350*450	550*450*550	600*500*750
	Exterior Size(W*L*H)(mm)	652*472*587	752*472*687	852*572*786	902*622*986
	Packing Size(W*L*H)(mm)	745*605*745	845*605*850	945*705*950	955*755*1150
	Volume	43L	71L	136L	225L
	Max Shelf Number	9	13	17	25
	Load Per Rack	15kg			
	Shelf Space	25mm			
	Current Rating(50/60HZ)	AC220V/5.5A	AC220V/7.3A	AC220V/9.1A	AC220V/13.6A
NW/GW(KG)	33/37	45/50	62/68	77/96	
<b>Accessory</b>	Shelf	2			
	Shelf Frame	4			
<b>Optional Accessories</b>	Shelves , Program Controller				

## Hot Air Sterilizing Drying Oven

○ Easy to operate efficient dry heat sterilizer.

### Characteristics:

- Horizontal air circularly by double Air ducts, high efficiency and high uniformity.
- PID controller, with over-temperature protection function.
- With fan switch,LED digital display,high temperature blast motor.
- New anti-hot handle.

**GXBE series have the following characteristics other than the above functions.**

- LCD temperature controller.
- 4 grades speed fan, adjustable for different requirements.
- Over-temperature protection system.
- High precision digital independent temperature limiter.
- 304:SUS304 Stainless Steel Body.



Patent No. : ZL 2018 3 0094606.5

### Main Technical Parameters:

Model	GX-30B	GX-45B	GX-65B	GX-85B	GX-125B	GX-230B	
	GX-30BE(304)	GX-45BE(304)	GX-65BE(304)	GX-85BE(304)	GX-125BE(304)	GX-230BE	
<b>Cycle Mode</b>	Forced convection						
<b>Function</b>	Temp. Range	RT+10-300°C					
	Temp. Resolution Ratio	0.1°C					
	Temp. Motion	± 1°C					
	Temp. Uniformity	± 2.5%					
<b>Structure</b>	Inner Chamber	Mirror Stainless Steel					
	Outer Shell	Cold rolling steel electrostatic spraying exterior, 304: SUS304					
	Insulation Layer	High quality rock wool board (with CE)					
	Heater	stainless steel heater					
<b>Controller</b>	Power Rating	0.8kW	1.2kW	1.6kW	2.0kW	2.3kW	3.0kW
	Exhaust Hole	φ 35mm top (with function of test hole)					
	Temp. Control Mode	Two temperature section PID intelligent					
	Temp. Setting Mode	Touch button setting					
	Temp. Display Mode	B model:LED Digital Display BE model: LCD Digital display					
	Timer	0-9999min(with timing wait function)					
	Operation Function	Fixed temperature operation, fixed timing operation, auto stop.					
	Additional Function	B model: Sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory BE model: High precision digital independent temperature limiter,4 grades 3 speed adjustable-speed fan (GX230BE without fan speed adjustor), sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory					
	Sensor	PT100					
	<b>Safety Device</b>	B type: Over temperature sound-light alarm; BE type: Digital Independent Temp. limiter, Over temperature sound-light alarm.					
<b>Specification</b>	Inner Chamber Size(W*L*H)(mm)	310*310*310	350*350*350	400*360*450	450*420*450	500*450*550	600*500*750
	Exterior Size (W*L*H)(mm)	460*510*695	500*550*735	550*550*840	590*610*830	636*680*915	735*835*1115
	Packing Size (W*L*H)(mm)	540*575*855	580*615*895	635*625*995	680*685*1000	710*730*1100	857*885*1287
	Volume	30L	45L	65L	85L	125L	230L
	Shelf Number	5	6	8	8	11	17
	Load Per Rack	15kg					
	Shelf Space	40mm					
	Current Rating(50/60HZ)	AC220V/3.6A	AC220V/5.5A	AC220V/7.2A	AC220V/9.0A	AC220V/10.5A	AC220V/13.6A
NW/GW (kg )	33/37	37/43	44/49	50/56	60/66	94/120	
<b>Accessory</b>	Shelf	2					
	Shelf Frame	4					
<b>Optional Accessories</b>	B type: Spare shelf, BE type: Spare shelf, RS485 interface, printer, Program controller, U-disk storage; 3.5-inch color touch screen temperature controller.						

## Portable Drying and Sterilizing Oven

Used for industrial and mining enterprises, scientific research institute, laboratory drying in hospital health and other units, drying of dental instruments,sterilization.

### Characteristics:

- Horizontal air circularly by double air ducts,high efficiency and high uniformity.
- 3.5 inch touch screen controller, two temperature section PID intelligent. Preset 4 operating temperatures, the temperature can be edited, select the mode, click run, run automatically, stop automatically , operation is convenient.
- Over temperature sound-light alarm,Sensor deviation correction, temperature overshoot self-tuning, power-off parameter memory.



Patent No. : ZL 2018 3 0094606.5

### Main Technical Parameters:

Model	FDS-30BE	FDS-65BE	
Cycle Mode	Forced convection		
Function	Temp. Range	RT+10-300 °C	
	Temp. Resolution Ratio	0.1 °C	
	Temp. Motion	± 1 °C	
	Temp. Uniformity	± 2.5%	
Structure	Inner Chamber	Mirror Stainless Steel	
	Outer Shell	Cold rolling steel electrostatic spraying exterior	
	Insulation Layer	High quality rock wool board	
	Heater	Stainless steel heater	
	Power Rating	0.8kW	1.6kW
	Exhaust Hole	φ 35mm top(with function of test hole)	
Controller	Temp.Control Mode	Two temperature section PID intelligent	
	Temp.Setting Mode	3.5 inch touch screen	
	Temp.Display Mode	Touch screen preset 4 mode settings, select a good mode to set the temperature time	
	Timer	0-9999min(with timing wait function)	
	Operation Function	Fixed temperature operation, fixed timing operation, auto stop	
	Additional Function	Over temperature sound-light alarm, Sensor deviation correction, temperature overshoot ,self-tuning, power-off parameter memory	
	Sensor	pt100	
	Safety Device	Over temperature alarm and cut off heating	
Specification	Inner Chamber Size(W*L*H)(mm)	310*310*310	400*360*450
	Exterior Size(W*L*H)(mm)	450*500*690	540*550*830
	Packing Size(W*L*H)(mm)	540*575*855	635*625*995
	Volume	30L	65L
	Shelf number	6	9
	Load Per Rack	15kg	
	Shelf Space	35mm	
	Power Rating(50/60HZ)	AC220V/3.6A	AC220V/7.2A
	NW/GW(kg)	33/37	44/49
	Accessory	Shelf	2
Shelf Frame		4	
Optional Accessories	Spare shelf, RS485 Communication Interface		

## Drying oven/Incubator (Double function)

Drying, baking, wax, heat treatment and bacterial culture in one chamber.

### Characteristics:

- Horizontal air circularly by double air ducts, high efficiency and high uniformity.
- PID controller, with over-temperature protection function.
- With oven/Incubator change switch, fan switch; and high temperature blast motor, LED digital display.
- New anti-hot handle.

GP-BE series have the following characteristics other than the above functions.

- LCD temperature controller.
- 4 grades speed fan, adjustable for different requirements.
- Over-temperature protection system.
- High precision digital independent temperature limiter.
- 304:SUS304 Stainless Steel Body.



Patent No. : ZL 2018 3 0094606.5

### Main Technical Parameters:

Model	GP-30B	GP-45B	GP-65B	GP-85B	GP-125B	GP-230B	
	GP-30BE	GP-45BE	GP-65BE	GP-85BE	GP-125BE	GP-230BE	
	GP-30BE(304)	GP-45BE(304)	GP-65BE(304)	GP-85BE(304)	GP-125BE(304)	GP-230BE	
Cycle Mode	Forced convection						
Function	Temp. Range	Incubator:RT+5-80°C Drying oven:80-300°C					
	Temp. Resolution Ratio	0.1°C					
	Temp. Motion	± 1°C					
	Temp. Uniformity	± 2.5%					
Structure	Inner Chamber	Mirror Stainless Steel					
	Outer Shell	Cold rolling steel electrostatic spraying exterior 304:SUS 304 embossed stainless steel shell					
	Insulation Layer	High quality rock wool board(with CE)					
	Heater	Stainless steel heater					
	Power Rating	0.8kW	1.2kW	1.6kW	2.0kW	2.3kW	3.0kW
	Exhaust Hole	φ 35mm top(with function of test hole)					
Controller	Temp. Control Mode	PID Two temperature section intelligent					
	Temp. Setting Mode	Touch button setting					
	Temp. Display Mode	B model: LED Digital Display BE model: LCD Digital display					
	Timer	0-9999min(with timing wait function)					
	Operation Function	Fixed temperature operation, timing function, auto stop.					
	Additional Function	B model: Sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory BE model: High precision digital independent temperature limiter.4 grades 3 speed adjustable-speed fan (GP230B/BE without fan speed adjustor), sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory					
Sensor	PT100						
Safety Device	B type: Over temperature sound-light alarm; BE type: Digital Independent Temp. limiter, Over temperature sound-light alarm.						
Specification	Inner Chamber Size(W*L*H)(mm)	310*310*310	350*350*350	400*360*450	450*420*450	500*450*550	600*500*750
	Exterior Size (W*L*H)(mm)	460*510*695	500*550*735	550*550*840	590*610*830	636*680*915	735*835*1115
	Packing Size (W*L*H)(mm)	540*575*855	580*615*895	635*625*995	680*685*1000	710*730*1100	857*885*1287
	Volume	30L	45L	65L	85L	125L	230L
	Shelf Number	5	6	8	8	11	17
	Load Per Rack	15kg					
	Shelf Space	40mm					
	Current Rating	AC220V/3.6A	AC220V/5.5A	AC220V/7.2A	AC220V/9.0A	AC220V/10.5A	AC220V/13.6A
	NW/GW (kg )	33/37	37/43	44/49	50/56	60/66	94/120
	Accessory	Shelf	2				
Shelf Frame		4					
Optional Accessories	B type: Spare shelf; BE type: Spare shelf, RS485 interface, printer, Program controller, remote control,U-disk storage; wireless SMS alarm, 3.5 inch color touch screen temperature controller.						

## Vacuum Drying Oven

For the design of drying heat sensitive and easy decomposition, easy oxidation material, inert gas into.



Patent No. : ZL 2018 3 0094764.0

### Characteristics:

- 4-sides heating method, temperature conduction by shelves, more efficiency.
- With inflatable port, once-forming thermostability silica gel sealant strip, with good tightness
- Double layer observation glass window, inner is toughened glass, outside is resin protection plate, more safety.
- Fastening handle, convenient for opening and closing.

### Main Technical Parameters:

Model	DZ-1BC II	DZ-2BC II	DZ-3BC II	DZ-4BC II	
<b>Heating Mode</b>	Four walls heat conduction and decompression				
<b>Function</b>	Temp.Range RT+10-250°C				
	Useful Vacuum Degree Range <133Pa				
	Temp. Resolution Ratio 0.1°C				
	Temp.motion ± 1°C				
	Heating-Up Time	80min	100min	120min	120min
<b>Structure</b>	Inner Chamber High Quality stainless steel				
	Outer Shell Cold rolling steel electrostatic spraying exterior				
	Insulation Layer High quality aluminum silicate cotton (with CE certification)				
	Heater Stainless steel electric heat tube				
	Observation Window Bullet-proof tempered glass				
	Vacuum Meter Pointer type, accuracy class 1.6%				
	Nozzle Diameter 10mm				
Power Rating	0.8kW	1.4kW	2.0kW	3.0kW	
<b>Controller</b>	Temperature Control Mode Two temperature section PID intelligent				
	Temperature Setting Mode Touch button setting				
	Temperature Display Mode Measuring temperature:display on the four digital tubes upper row; setting temperature; display on the lower row				
	Timer 0-9999min(with timing wait function)				
	Operation Function Fixed temperature operation, timing function, auto stop				
	Additional Function Sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory				
<b>Safety Device</b> Over temperature sound-light alarm					
<b>Specification</b>	Inner (W*L*H) (mm)	300*300*270	415*370*340	450*450*450	550*600*650
	Exterior (W*L*H) (mm)	480*480*606	560*540*680	640*590*780	740*740*1000
	Packing (W*L*H) mm	590*550*750	704*620*814	739*700*889	839*850*1109
	Volume	24L	52L	91L	214.5L
	Standard Shelf Number	4	6	7	8
	Load Per Rack	15kg			
	Shelf Space	40mm	40mm	50mm	70mm
	Current Rating (50/60Hz)	AC220V/3.6A	AC220V/6.3A	AC220V/9.1A	AC220V/13.6A
NW/GW kg	42/52	67/92	82/105	170/200	
<b>Accessory</b>	Shelf	2			
	Shelf Frame	4			
<b>Optional Accessories</b>	Silicone connecting tube, vacuum pump filter, vacuum pump				

## Precision Vacuum Drying Oven

### Characteristics:

- 4-sides Heating method, Temperature conduction by shelves, more efficiency.
- With inflatable port, once-forming thermostability Silica gel Sealant strip, with good tightness
- Double Observation glass window, inner is explosion - proof glass, outside is resin protection plate, more safety.
- Fastening handle, convenient for opening and closing.
- LCD controller,multiple groups of data3 display on one screen, intelligent PID control system, with PT100 sensor.
- LCD vacuum gauge, accuracy class 0.5, Mpa, Kpa, bar, Psi, KGF/cm<sup>2</sup> five pressure units optional switch.



Patent No.: ZL 2018 3 0094764.0

### Main Technical Parameters:

Model	DZ-1BIV	DZ-2BIV	DZ-3BIV	DZ-4BIV	
<b>Heating Mode</b>	Four walls heat conduction and decompression				
<b>Function</b>	Temp.Range RT+10-250°C				
	Useful Vacuum Degree Range <133Pa				
	Temp. Resolution Ratio 0.1°C				
	Temp.motion ± 1°C				
	Heating-Up Time	80min	100min	120min	120min
<b>Structure</b>	Inner Chamber High Quality stainless steel				
	Outer Shell Cold rolling steel electrostatic spraying exterior				
	Insulation Layer High quality aluminum silicate cotton (with CE certification)				
	Heater Stainless steel electric heat tube				
	Observation Window Bullet-proof tempered glass				
	Vacuum Meter LCD display, accuracy class 0.5				
	Nozzle Diameter 10mm				
Power Rating	0.8kW	1.4kW	2.0kW	3.0kW	
<b>Controller</b>	Temperature Control Mode Two temperature section PID intelligent				
	Temperature Setting Mode Touch button setting				
	Temperature Display Mode LCD Color screen Liquid crystal displays multiple groups of data on one screen				
	Timer 0-9999min(with timing wait function)				
	Operation Function Fixed temperature operation, timing function, auto stop				
	Additional Function Sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory				
<b>Safety Device</b> Over temperature sound-light alarm					
<b>Specification</b>	Inner (W*L*H) (mm)	300*300*270	415*370*340	450*450*450	550*600*650
	Exterior (W*L*H) (mm)	480*480*606	560*540*680	640*590*780	740*740*1000
	Packing (W*L*H) mm	590*550*750	704*620*814	739*700*889	839*850*1109
	Volume	24L	52L	91L	214.5L
	Number Of Shelf	4	6	7	8
	Load Per Rack	15kg			
	Shelf Space	40mm	40mm	50mm	70mm
	Current Rating (50/60Hz)	AC220V/3.6A	AC220V/6.3A	AC220V/9.1A	AC220V/13.6A
NW/GW kg	42/52	67/92	82/105	170/200	
<b>Accessory</b>	Shelf	2			
	Shelf Frame	4			
<b>Optional Accessories</b>	Silicone connecting tube, vacuum pump filter, vacuum pump				

## Automatic Precision Vacuum Drying Oven

(Pluggable shelf heating)

It is designed for drying heat-sensitive, easily decomposed and easily oxidized substances. It is widely used in medicine, food, light industry, chemical industry, agricultural scientific research, environmental protection and other experimental fields.

### Characteristics:

- SUS304 embossed stainless steel housing, SUS304 mirrored stainless steel studio, 5083 corrosion resistant aluminum plate.
- Independent pluggable shelf heating.
- Fixed value or program operation mode, true color 7.0-inch touch screen multi-section PID temperature controller, high temperature control accuracy, real-time temperature curve record, convenient for users to see the heating process. The program mode can realize temperature control and vacuum degree multi-stage programming operation to improve the experimental efficiency.
- Automatic vacuum degree control system, set the vacuum degree, automatically reach the set vacuum degree. Standard with inflatable port, manual and electric double set of exhaust device.
- Users can configure the vacuum pump, standard with the vacuum pump oil return device, convenient for customers to use, avoid the vacuum pump oil return.
- BLT type standard with vacuum pump, air pipeline equipped with air filter device, improve the service life of vacuum pump.



Patent No. : ZL 2018 3 0094764.0

### Main Technical Parameters:

Model	DZ-2BL	DZ-3BL	DZ-4BL
Heating Mode	Sheft direct heating		
Temp.Range	RT+10-250℃		
Useful Vacuum Degree Range	<133Pa		
Temp. Resolution Ratio	0.1℃		
Temp.motion	± 1℃		
Heating-Up Time	≤40 minutes		
Inner Chamber	SUS304 mirror stainless steel		
Outer Shell	SUS304embossed stainless steel, 5083 Corrosion resistant aluminum plate		
Insulation Layer	Aluminium silicate fibre		
Heater	Mica electrothermal film		
Observation Window	Bulletproof tempered glass		
Vacuum Sensor	Standard pressure sensor, absolute pressure accuracy class 0.25, vacuum touch screen display		
Exhaust device	Manual and electric double exhaust device		
Air intake port	Standard inflation port		
*BLT Vacuum Pump System (BL:without Vacuum Pump)*	Double stage rotary vane vacuum pump 2L/S	Double stage rotary vane vacuum pump 4L/S	Double stage rotary vane vacuum pump 6L/S
Nozzle Diameter	10mm		
Power Rating	BL: 1.2kW	BLT: 1.6kW	BL: 1.6kW BLT: 2.0kW BL: 2.5kW BLT: 2.9kW
Temperature Control Mode	7.0-inch LCD color touch screen multi-stage PID program temperature control		
Temperature Setting Mode	Touch Screen Type		
Temperature Display Mode	7.0-inch LCD color touch screen		
Timer	0-9999 minutes/0-9999 hours can adjust		
Operation Function	Fixed value operation, regular, automatic stop		
Fixed Value Mode	Control temperature and vacuum at the same time		
Program Mode	Control temperature and control vacuum at the same time, 30 programmable operation		
Additional Function	Vacuum pump oil return preventer		
Temperature Sensor	Real-time temperature curve recording with U disk data storage and export function		
Safety Device	Sensor deviation correction, temperature overshoot self-setting, internal parameter locking, power off parameter memory		
Inner (W*L*H) mm	415*370*340	450*450*450	550*600*650
Exterior (W*L*H) mm	635*565*796	670*645*906	770*795*650
Packing (W*L*H) mm	804*705*957	840*785*1062	940*935*1262
Volume	52L	91L	214.5L
Number Of Shelf	2		
Load Per Rack	15kg		
Shelf Space	140mm	185mm	265mm
Current Rating ( 50/60Hz )	AC220V/6.3A	AC220V/9.1A	AC220V/13.1A
NW/GW kg	BL: 67/92 BLT: 87/112	BL: 82/105 BLT: 102/125	BL: 180/210 BLT: 210/240
Shelf	2		
Shelf Frame	4		
Optional Accessories	Shelf(Independent temperature control),RS485 transfer to USB communication interface,Printer,WIFI control module		

## Big Forced Air Drying Oven

Large capacity industrial high precision drying oven to meet the requirements of military industry.

### Characteristics:

- PID or program temperature control controller, with over-temperature alarm system.
- Double doors ensure that use is convenient.
- Forced air system, with Low-noise fan, centrifugal cycle method, high temperature uniformity.



Patent No. : ZL 2018 3 0094606.5

### Main Technical Parameters:

Model	DGF-4A	DGF-5A	DGF-6A	DGF-7A	DGF-8A
	DGF-4AB	DGF-5AB	DGF-6AB	DGF-7AB	DGF-8AB
Cycle Mode	Fan - forced circulation				
Temp. Range	RT+10-250℃		RT+10-300℃		
Temp. Resolution Ratio	0.1℃				
Temp. Motion	± 1℃				
Temp. Uniformity	± 3%				
Inner Chamber	A: Iron inner chamber AB: Stainless steel inner chamber				
Outer Shell	Galvanized sheet electrostatic spraying exterior				
Insulation Layer	High quality rock wool board(with CE)				
Heater	Stainless steel heating tube				
Power Rating	6kW	6.6kW	9kW	12kW	15kW
Exhaust Hole	On top or side				
Temp. Control Mode	PID intelligent control or Multi - segment programmable control ( optional )				
Temp. Setting Mode	Touch button setting				
Temp. Display Mode	LCD Digital Display				
Timer	0-9999min (with timing wait function )				
Operation Function	Fixed temperature operation, timing function, auto stop.				
Additional Function	Temperature deviation correction, menu locked, power-off memory				
Sensor	PT100				
Safety Device	One key to start overheat power off				
Inner Chamber Size (W*L*H)(mm)	800*800*1000	1000*1000*1000	1000*1000*1300	1200*1200*1300	1600*1200*1600
Exterior Size (W*L*H)(mm)	940*1000*1400	1040*1200*1400	1230*1200*1670	1330*1400*1670	1750*1400*2070
Packing Size (W*L*H)(mm)	1060*1090*1520	1260*1290*1520	1350*1300*1890	1550*1500*1890	1950*1500*1910
Volume	640L	1000L	1300L	1870L	3070L
Max. Shelf Number	11	11	11	11	12
Load Per Rack	30kg				
Shelf Space	70mm		100mm		
Power Supply (50/60HZ)	380V				
NW/GW ( kg )	200	260	350	480	800
Shelf	2				
Shelf Frame	No				
Optional Accessories	Spare shelf, Program controller, RS485 interface, Printer Products of different specifications can be customized according to customer requirements.				

## Desktop Constant-temperature Drying Oven Desktop Constant-temperature Incubator

○ Light natural convection drying oven / incubator.

### Characteristics:

- In the workroom, the hot air is convective naturally and cyclically.
- Digital display microcomputer intelligent PID temperature controller.
- New anti-hot handle.



Patent No. : ZL 2018 3 0094606.5

### Main Technical Parameters:

Model	WHL-25A/WHL-25AB	WP-25AWP-25AB
Cycle Mode	Natural convection	
Function	Temp. Range	RT+10-300°C
	Temp. Resolution Ratio	0.1°C
	Temp. Motion	± 1°C
	Temp. Uniformity	± 3.5%
Structure	Inner Chamber	B model: mirror stainless steel; without B model: High strength galvanized sheet
	Outer Shell	cold rolling steel electrostatic spraying exterior
	Insulation Layer	High quality rock wool board(with CE)
	Heater	Nickel chromium alloy heating wire
	Power Rating	0.6kW
Controller	Exhaust Hole	φ 35mm top (with function of test hole)
	Temp. Control Mode	Two temperature section intelligent PID
	Temp. Set Mode	Touch button setting
	Temp. Display Mode	Measuring temperature: display on upper row; Setting temperature:display on the lower row
	Timer	0-9999min(with timing wait function)
	Operation Function	fixed temperature operation, timing function, auto stop
	Additional Function	Sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory
Sensor	PT100	
Safety Device	over temperature sound-light alarm	
Specification	Inner Chamber Size(W*L*H)(mm)	260*260*260
	Exterior Size (W*L*H)(mm)	380*455*568
	Packing Size (W*L*H)(mm)	515*480*640
	Volume	18L
	Shelf Number	6
	Load Per Rack	15kg
	Shelf Space	29mm
	(50/60HZ)Current Rating	AC220V/2.7A
Accessory	NW/GW (kg)	15/22
	Shelf	2
Optional Accessories	Shelf	

## 500°C/600°C High Temperature Forced Air Drying Oven

### Characteristics:

- Colour LCD display, PID controller, ensure the temperature more accurate and stable.
- SUS316 stainless steel inner chamber, four-corner semicircular arc transition, shelf can be removed freely, easy to clean.
- Ceramic fiber door seal, high temperature resistant circulating fan, long-term high temperature operation, long service life.
- B: 500°C
- BE: 600°C



### Main Technical Parameters:

Model	FG-50B/50BE	FG-91B/91BE	FG-150B/150BE	FG-208B/208BE
Circulation Mode	Forced Convection			
Function	Temp.Range	B:RT+20-500°C, BE:RT+20-600°C		
	Temp.Resolution Ratio	0.1°C		
	Temp.Motion	± 0.5°C		
	Temp.Uniformity	2.50%		
Structure	Inner Chamber	B: SUS316L; BE: SUS309S		
	Outer Shell	Cold rolling steel electrostatic spraying exterior		
	Insulation Layer	Alumina Silicate Fibre		
Heater	SUS304 Stainless steel electric heat tube			
Controller	Power Rating	3.6kW	4.5kW	4.8kW
	Exhaust Hole	φ 35mm top (with function of test hole)		
	Temp.Control Mode	Two temperature section PID intelligent		
	Temp.Setting Mode	Touch button setting		
	Temp. Display Mode	Measuring temperature display on upper LCD screen, setting temperature display on the lower row.		
	Timer	0-9999min(with timing wait function)		
	Operation Function	Fixed temperature operation, fixed timing operation, auto stop		
	Additional function	Sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory		
	Sensor	High Precision K type		
	Safety Device	Over temperature sound-light alarm		
Specification	Inner Chamber Size(W*L*H)(mm)	350*350*400	450*450*450	500*500*600
	Exterior Size(W*L*H)(mm)	781*529*645	881*629*789	931*679*939
	Packing Size(W*L*H)(mm)	901*649*845	1001*749*989	1051*799*1139
	Volume	50L	91L	150L
	Max Shelf Number	4	6	7
	Load Per Rack	15kg		
	Shelf Space	45mm		
	Current Rating(50/60HZ)	AC380V/5.5A	AC380V/6.8A	AC380V/7.3A
	NW/GW(KG)	44/54	60/75	80/95
	Accessory	Shelf	2	
Shelf Frame		4		
Optional Accessories	Spare shelf, Program controller			

## CO2 Incubator

### Characteristics:

- Full-color 5.0-inch touch screen.
- Standard imported infrared high-precision CO2 concentration sensor.
- Has three levels of authority management function, with ultraviolet sterilization, wet heat sterilization, high temperature sterilization three sterilization methods.
- Six side heating air jacket heating system, while the design of a reasonable air duct mechanism, good temperature uniformity, heating, rapid return temperature.
- Adopts chassis reservoir design with large evaporation area and fast moisture return. With a door heating device, can avoid the inner door glass condensation. The product is equipped with high efficiency filter and intake filter to ensure the cleanliness of the air in the working room.



### Main Technical Parameters:

Model	FC-50	FC-80	FC-150	FC-180
Heating Type	Air Jacket			
Temp. range	RT+5-55℃			
Temp. resolution	0.1℃			
Temp. fluctuation	±0.1℃			
Temp. uniformity	±0.3℃			
CO2 Sensor	Infrared Sensor/measuring range: 0.0~21.0%			
CO2 control range	0.0~20.0%			
CO2 control accuracy	±0.1%			
Inner Chamber	Heating steel			
Outer Shell	Cold-Roll Steel Sheet, Surface electrostatic spraying			
Insulating layer	Polyurethane			
Heater	Heating sheet			
Humidity Method	Disk humidifier			
Rated power	0.4kW	0.5kW	0.6kW	0.7kW
Gas vent	φ 27mm rear (with test hole function)			
Other	HEPA filter			
Temp. Control Mode	PID control			
Temp. Setting Mode	5.0-inch touch screen			
Temp. Display Mode	Temperature displayed on left, concentration displayed on right screen			
Timer	0-9999 minutes (with timing wait function)			
Operation Function	Fixed value operation, timed operation, automatic stop			
Sterilization function	Uv sterilization, wet heat sterilization, Sterilization at high temperature 140/180℃			
Additional function	Sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power off parameter memory			
Sensor	PT100, water level sensor, infrared CO2 sensor			
Safety device	High temperature alarm, concentration alarm, other alarm			
Inner Chamber(W*D*H)	345*375*388	404*439*454	509*472*632	540*500*670
Exterior Size(W*D*H)	500*500*655	585*585*766	593*746*842	629*791*893
Packing Size (W*D*H)	620*620*855	705*705*966	713*866*1042	749*911*1093
Volume	50L	80L	150L	180L
Max. Shelf Number	4	5	6	7
Load per Shelf	15kg			
Shelf Space	35mm			
Supply(50/60HZ)	AC220V/1.8A	AC220V/2.3A	AC220V/2.7A	AC220V/3.2A
Current Rating				
N.W/G.W(kg)	55/70	97/112	93/108	115/130
Standard Shelf number	2			
Standard Shelf rack	4			
Optional Accessories	( Optional 90℃ wet heat sterilization carbon dioxide infrared sensor ) Separator, printer			

## Constant-Temperature Incubator

● Classical bacterial microorganism incubator.



Patent No. : ZL 2018 3 0095051.6

### Characteristics:

- New panel 5 degree angle, new rotary switch for glass inner door, convenient to use.
- The double door structure adopts high quality glass, easy to observe samples, the door with magnetic strip is easy to be opened and closed, good sealing.

### Main Technical Parameters:

Model	DH3600 II	DH4000 II	DH5000 II	DH6000 II
	DH3600B II	DH4000B II	DH5000B II	DH6000B II
Cycle Mode	Natural convection			
Temp. Range	RT+5-70℃			
Temp. Resolution Ratio	0.1℃			
Temp. Motion	±0.5℃			
Temp. Uniformity	±1.5℃			
Inner Chamber	B :mirror stainless steel; without B :High strength galvanized sheet			
Outer Shell	Cold rolling steel electrostatic spraying exterior			
Insulation Layer	High quality foam board			
Heater	Mica electrothermal film			
Power Rating	0.35kW	0.45kW	0.6kW	0.7kW
Exhaust Hole	φ 35mm top with function of test hole			
Temp. Control Mode	PID Intelligent			
Temp. Setting Mode	Touch button setting			
Temp. Display Mode	Measuring temperature: LED upper row; setting temperature: LED lower row			
Timer	0-9999min (with timing wait function)			
Operation Function	Fixed temperature operation, timing function, auto stop.			
Additional Function	Sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory			
Sensor	PT100			
Safety Device	Over temperature sound-light alarm			
Inner Chamber Size(W*L*H)(mm)	350*350*350	400*350*450	500*450*550	600*580*600
Exterior Size (W*L*H)(mm)	525*480*620	575*480*720	675*580*820	775*710*870
Packing Size (W*L*H)(mm)	595*562*795	645*562*885	745*662*990	845*792*1040
Volume	45L	65L	125L	210L
Shelf Number	7	10	13	14
Load Per Rack	15kg			
Shelf Space	35mm			
Current Rating	AC220V/1.1A	AC220V/1.1A	AC220V/2.3A	AC220V/2.7A
NW/GW (kg)	27/40	32/45	45/60	55/70
Shelf	2			
Optional Accessories	Shelf			

## High Precision Constant Temperature Incubator

High precision bacterial microbial incubator.

### Characteristics:

- The double door structure adopts high quality glass, easy to observe samples, the outdoor with magnetic strip is easy to be opened and closed, good sealing, open door power-off function.
- Standard lights, UV lamps, with breeze circulation fan.
- High precision digital independent temperature limiter.
- With function of cutting off UV lamp by open door.



Patent No. : ZL 2018 3 0095051.6

### Main Technical Parameters:

Model	DH45L	DH65L	DH125L	DH210L	
Cycle Mode	Breeze circulation				
Function	Tem. Range RT+5~70℃				
	Tem. Resolution Ratio 0.1℃				
	Tem. Motion ±0.5℃				
	Tem. Uniformity ±0.8℃				
	Inner Chamber Mirror stainless steel				
Structure	Outer Shell Cold rolling steel electrostatic spraying exterior				
	Insulation Layer High quality foam board				
	Heater Mica electrothermal film				
	Power Rating	0.35kW	0.45kW	0.6kW	0.7kW
	Exhaust Hole	φ 35mm top(with function of test hole)			
Controller	Tem. Control Mode PID Intelligent				
	Tem. Setting Mode Touch button setting				
	Tem. Display Mode Digital temperature: LCD upper row; Setting temperature: the lower row				
	Timer 0-9999 min (with timing wait function)				
	Operation Function Fixed temperature operation, timing function, auto stop.				
	Additional Function Breeze Circulation fan, UV lamp, LED Floodlight, Sensor deviation correction, temperature overshoot self-tuning, power-off parameter memory				
Sensor PT100					
Safety Device Digital independent temp limiter, over temperature sound-light alarm					
Specification	Inner Chamber Size(W*L*H)(mm)	350*350*350	400*350*450	500*450*550	600*580*600
	Exterior Size (W*L*H)(mm)	525*480*640	575*480*740	675*580*840	775*710*890
	Packing Size (W*L*H)(mm)	595*562*795	645*562*885	745*662*990	845*792*1040
	Volume	45L	65L	125L	210L
	Shelf Number	7	10	13	14
	Load Per Rack	15kg			
	Shelf Space	35mm			
	Supply(50/60HZ)Current Rating	AC220V/1.6A	AC220V/2.0A	AC220V/2.7A	AC220V/3.2A
	NW/GW (kg)	27/40	32/45	45/60	55/70
	Accessory	Shelf	2		
Shelf Frame		4			
Optional Accessories				Spare shelf, Port, USB data storage	

## Constant-temperature Incubator

High precision experimental bacterial incubator.

### Characteristics:

- Unique vertical double duct supply horizontal air circulation.
- 4 grades 3 speed adjustable speed fan, LED running indicator light.
- Over-temperature protection system: LED red light on meanwhile cut off heating circuit to improve product safety when workroom temperature exceed the alarm value.
- High precision digital independent temperature limiter.
- 304:SUS304 Stainless Steel Body.



Patent No. : ZL 2018 3 0095051.6

### Main Technical Parameters:

Model	WPL-30BE	WPL-45BE	WPL-65BE	WPL-85BE	WPL-125BE	WPL-230BE	
	WPL-30BE(304)	WPL-45BE(304)	WPL-65BE(304)	WPL-85BE(304)	WPL-125BE(304)	WPL-230BE(304)	
Cycle Mode	Forced convection						
Function	Temp. Range RT+5~120℃						
	Temp. Resolution Ratio 0.1℃						
	Temp. Motion ±1℃						
	Temp. Uniformity ±1.0℃						
	Inner Chamber Mirror Stainless Steel						
Structure	Outer Shell Cold rolling steel electrostatic spraying exterior						
	Insulation Layer High quality foam board						
	Heater Stainless steel electric heating tube						
	Power Rating	0.4kW	0.5kW	0.7kW	0.9kW	1.1kW	1.5kW
	Exhaust Hole	φ 35mm top( with function of test hole)					
Controller	Temp Control Mode Two temperature section intelligent PID						
	Temp. Setting Mode Touch button setting						
	Temp. Display Mode Measuring temperature: LCD upper screen; setting temperature: LCD lower row						
	Timer 0-9999min(with timing wait function)						
	Operation Function Fixed temperature operation, fixed timing function, auto stop.						
	Additional Function Digital Independent temp. limiter, 4 grades 3 speed adjustable speed fan(230 without fan speed adjust), Sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory						
Sensor PT100							
Safety Device Over temp. sound-light alarm, Digital Independent temp. limiter							
Specification	Inner Chamber Size(W*L*H)(mm)	310*310*310	350*350*350	400*360*450	450*420*450	500*450*550	600*500*750
	Exterior Size (W*L*H)(mm)	460*510*695	500*550*735	550*550*840	590*610*830	636*680*915	735*835*1115
	Packing Size (W*L*H)(mm)	540*575*855	580*615*895	635*625*995	680*685*1000	710*730*1100	857*885*1287
	Volume	30L	45L	65L	85L	125L	230L
	Shelf Number	5	6	8	8	11	17
	Load Per Rack	15kg					
	Shelf Space	40mm					
	Current Rating	220V/1.8A	220V/2.3A	220V/3.2A	220V/4.1A	220V/5A	220V/6.8A
	NW/GW (kg)	33/37	37/43	44/49	50/56	60/66	94/120
	Accessory	Shelf Fame 4					
Shelf 2							
Optional Accessories Shelf, U-disk storage, Printer, 3.5-inch color touch screen temperature controller.							

## Portable Incubator

It is used for industrial and mining enterprises, food processing, agriculture, biochemistry, biology, medicine industry of bacteria, microbe and other small culture experiments.

### Characteristics:

- Internal naturally air convection, four sides heating method, to make inner temperature uniformity.
- Mirror stainless steel inner chamber, four corners arc transition easy to clean.
- PID controller, with over-temperature protection function, with over-temperature alarm, sensor fault alarm, fixed value operation, regular operation, deviation correction, menu locking and other functions.
- With high quality glass window and installed LED light on the door, easy to observe the sample inside, especially under dark conditions.
- Portable design, the top handle is easy to move, optional 12V vehicle power supply, vehicle 12V, 100-240V can be used.



Patent No. : ZL 2019 2 0769300.4

### Main Technical Parameters:

Model		DH2500AB	DH3000AB	
Cycle Mode		Natural convection		
Function	Temp Range	RT+5-65℃		
	Temp Resolution Ratio	0.1℃		
	Temp Motion	± 0.5℃		
	Temp Uniformity	± 1.5℃		
Structure	Inner Chamber	Mirror stainless steel		
	Outer Shell	Cold rolling steel electrostatic spraying exterior		
	Insulation Layer	Polyurethane		
	Heater	Heating Element		
	Power Rating	0.08kW	0.12kW	
Controlle	Temp Control Mode	PID Intelligent		
	Temp Setting Mode	Touch button setting		
	Temp Display Mode	Measuring temperature: LED upper row ; Setting temperature: the lower row		
	Timer	0-9999min (with timing wait function)		
	Operation Function	Fixed temperature operation, timing function, auto stop.		
	Additional Function	Sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory		
	Sensor	PT 100		
	Safety Device		Over temperature sound-light alarm	
	Specification	Inner Chamber Size(W*L*H)(mm)	230*200*200	230*200*280
		Exterior Size (W*L*H)(mm)	310*276*298	310*276*378
Packing Size (W*L*H)(mm)		350*312*377	350*312*457	
Volume		9.2L	12.8L	
Shelf Number		2		
Load Per Rack		5kg		
Shelf Space		35mm		
Supply(50/60HZ)Current Rating		AC220V/0.36A	AC220V/0.36A	
NW/GW (kg)	8\10	12\14		
Optional Accessories		Vehicular/DC12V/AC110V/AC220VSupply		

## Precision Cooling Incubator/BOD Incubator Refrigerated Incubator

Various constant temperature experiments and environmental tests, water analysis, microbe culture of BOD / bacteria, plant breeding, and sample preservation.

### Characteristics:

- Unique internal wind circulation structure design, fan breeze circulation.
- The double door structure, with high quality glass easy to observe the samples, the outer door with magnetic strip, good sealing.
- Colour LCD display and 30-stage program temperature control, double evaporators and automatic control intelligent defrosting to ensure long-term operating without defrost. standard independent temperature limiter, double protection for test safety.

### BL model additional characteristics:

- 5.0 inch touch display 30-stage program control, round move, ladder operating.
- Sensor failure alarm, temperature curve, U-disk data storage, auto start.
- UV Lamp



Patent No. : ZL 2018 3 0095051.6

### Main Technical Parameters:

Model		SPX-70BIV	SPX-150BIV	SPX-250BIV
Cycle Mode		SPX-70BL	SPX-150BL	SPX-250BL
Function		Forced convection		
Function	Temp. Range	0-65℃		
	Temp. Resolution Ratio	0.1℃		
	Temp. Motion	High Temp.: ± 0.5℃ Low Temp.: ± 1℃		
	Temp. Uniformity	± 1℃		
Structure	Inner Chamber	Mirror Stainless Steel		
	Outer Shell	Cold rolling steel electrostatic spraying exterior		
	Insulation Layer	Polyurethane		
	Heater	Stainless steel heating tube		
	Power Rating	0.8kW	1.0kW	1.2kW
	Compressor	Air cooled hermetic compressor		
	Cryogen	R134a		
	Defrost Structure	Double evaporator switching defrosting		
	Test Hole	43mm		
	Controlled External Power Supply	Universal socket (one) Built in waterproof socket ( one )		
	Temp. Control Mode	BIV: Color screen LCD program BL: 5.0 inch touch screen		
	Temp. Setting Mode	Touch button setting or Touch screen type		
	Temp. Display Mode	Measuring temperature: LCD upper screen; setting temperature: LCD lower row		
	Timer	0-99.9h*30Segment		
	Operation Function	Program operation		
Sensor	PT100			
Additional Function	BIV model: LED light, Deviation correction, Menu key lock, Power failure parameter memory			
	BL model additional character: loop self diagnosis			
Safety Device		Over temperature alarm, digital temperature limiter		
Specification	Inner Chamber Size(W*L*H)(mm)	420*350*500	500*500*600	600*500*840
	Exterior Size (W*L*H)(mm)	580*610*1190	660*760*1290	760*760*1530
	Packing Size (W*L*H)(mm)	706*698*1358	856*778*1458	878*865*1698
	Volume	70L	150L	250L
	Load Per Rack	15kg		
	Shelf Number	9	12	18
	Shelf Space	35mm		
	Power Supply Current Rating	AC220V/2.3A	AC220V/3.6A	AC220V/5.5A
Accessory	NW/GW (kg)	69/92	86/114	100/139
	Shelf	2		
Optional Accessories		Spare shelf, RS485 interface, printer, Program controller, remote control, U-disk storage		

## -10°C Cooling Incubator / BOD Incubator Refrigerated Incubator

○ Various constant temperature experiments and environmental tests, water analysis, microbe culture of BOD / bacteria, plant breeding, and sample preservation.

### Characteristics:

- Unique internal wind circulation structure design, fan breeze circulation.
- The double door structure, with high quality glass easy to observe the samples, the outer door with magnetic strip, good sealing.
- Colour LCD display and 30-stage program temperature control, double evaporators and automatic control intelligent defrosting to ensure long-term operating without defrost. standard independent temperature limiter, double protection for test safety.

### BLT model additional characteristics:

- 5.0 inch touch display 30-stage program control, round move, ladder operating.
- Sensor failure alarm, temperature curve, U-disk data storage, auto start.
- UV Lamp



Patent No. : ZL 2018 3 0095051.6

### Main Technical Parameters:

Model	SPX-70BV	SPX-150BV	SPX-250BV	
	SPX-70BLT	SPX-150BLT	SPX-250BLT	
<b>Cycle Mode</b>				
Forced convection				
<b>Function</b>	Temp. Range			
	-10-65°C			
	Temp. Resolution Ratio			
	0.1°C			
Temp. Motion				
High Temp.: ±0.5°C Low Temp.: ±1°C				
Temp. Uniformity				
±1°C				
<b>Structure</b>	Inner Chamber			
	Mirror Stainless Steel			
	Outer Shell			
	Cold rolling steel electrostatic spraying exterior			
	Insulation Layer			
	Polyurethane			
	Heater			
	Stainless steel heating tube			
	Power Rating	0.8kW	1.0kW	1.2kW
	Compressor			
	Air cooled hermetic compressor			
	Cryogen			
	R134a			
Defrost Structure				
Double evaporator switching defrosting				
Test Hole				
43mm				
Controlled External Power Supply				
Universal socket (one) Built in waterproof socket ( one )				
Temp. Control Mode				
BV: Color screen LCD program BLT: 5.0 inch touch screen				
Temp. Setting Mode				
Touch button setting or Touch screen type				
Temp. Display Mode				
Measuring temperature: LCD upper screen; setting temperature: LCD lower row				
Timer				
0-99.9h*30Segment				
Operation Function				
Program operation				
Sensor				
PT100				
Additional Function				
BV model: LED light, Deviation correction, Menu key lock, Power failure parameter memory				
BLT model additional character: loop self diagnosis				
<b>Safety Device</b>				
Over temperature alarm, digital temperature limiter				
<b>Specification</b>	Inner Chamber Size(W*L*H)(mm)			
	420*350*500			
	Exterior Size (W*L*H)(mm)			
	580*610*1190			
	Packing Size (W*L*H)(mm)			
	706*698*1358			
	Volume			
	70L			
	Load Per Rack			
	15kg			
Shelf Number				
9				
Shelf Space				
35mm				
Power Supply Current Rating				
AC220V/2.3A				
AC220V/3.6A				
AC220V/5.5A				
NW/GW (kg)				
69/92				
86/114				
100/139				
<b>Accessory</b>	Shelf			
	2			
Shelf Frame				
4				
Optional Accessories				
Spare shelf, RS485 interface, printer, remote control, U-disk storage				

## Cooling Incubator/Refrigerated Incubator/ Bod Incubator

○ Various constant temperature experiments and environmental tests at 0~65°C, water analysis, microbe culture of BOD / bacteria, plant breeding, and sample preservation.

### Characteristics:

- Unique internal wind circulation structure design, breeze circulate fan make inner chamber temperature uniformity.
- Double door seal; tempered glass silicon rubber seal inner door and magnetic rubber seal outer door, which are convenient to on/off; inner chamber with light for convenient observation.
- Intelligent defrosting function ensure device long-time run without frost.
- Fluoride-free refrigeration and gentle breeze circulation.
- Test hole of φ 52mm at left side of container.

### BX model additional characteristics:

- LCD scree 30-stage program controller, round move, ladder operating.
- Sensor failure alarm



Patent No. : ZL 2018 3 0095051.6

### Main Technical Parameters:

Cycle Model	SPX-70BIII	SPX-150BIII	SPX-250BIII	
	SPX-70BX	SPX-150BX	SPX-250BX	
<b>Function</b>				
Forced Convection				
Temp. Range				
0-65°C				
Temp. Resolution Ratio				
0.1°C				
Temp. Motion				
High Temp: ±0.5°C Low Temp: ±1°C				
Temp. Uniformity				
±1.5°C				
<b>Structure</b>	Inner Chamber			
	Mirror Stainless Steel			
	Outer Shell			
	Cold rolling steel electrostatic spraying exterior			
	Insulation Layer			
	Polyurethane			
	Heater			
	Stainless steel heater			
	Power Rating	0.8kW	1.0kW	1.2kW
	Compressor			
	Air cooled hermetic compressor			
	Cryogen			
	R134a			
Defrost Structure				
Automatic control intelligent defrosting				
Test Hole				
Inner diameter 43mm(one)				
Controlled External Power Supply				
Outer universal socket(one), inner waterproof socket(one)				
<b>Control</b>	Temp. Control Mode			
	BIII model:single-stage LCD Intelligent PID; BX model:30-stage LCD program			
	Temp. Setting Mode			
	Touch button setting			
	Temp. Display Mode			
	Measuring temperature:LCD upper row; Setting temperature:LCD lower row			
	BIII model:0-99.9h BX model:0-99.9h*30 segment(with timing wait function)			
Timer				
BIII model: fixed value operation, timing function, auto stop.				
Operation Function				
BX model:Program operation				
Sensor				
PT100				
Additional Function				
BIII model:LED light, Deviation correction, Menu key lock, Power failure parameter memory				
BX model:Loop self diagnosis, sensor fault alarm				
<b>Safety Device</b>				
Over temperature alarm				
<b>Specification</b>	Inner Chamber Size (W*L*H)(mm)			
	415*350*500			
	Exterior Size (W*L*H)(mm)			
	571*591*1051			
	Packing Size (W*L*H) ( mm )			
	680*676*1235			
	Volume			
	70L			
	Load Per Rack			
	15kg			
Shelf Number				
5				
Shelf Space				
9				
Shelf Space				
60mm				
Supply(50/60Hz)Current Rating				
AC220V/2.3A				
AC220V/3.6A				
AC220V/5.5A				
NW/GM(kg)				
69/92				
86/114				
100/139				
<b>Accessory</b>	Shelf			
	2			
Shelf Frame				
4				
Optional Accessories				
shelf, RS485 port, printer, recorder, Remote Control, wireless messaging alarm, U-Disk data storage				

## Mould Cultivation Cabinet

Constant temperature experiments and environmental tests for the need for humidity.

### Characteristics:

- Unique internal wind circulation structure design, breeze circulate fan make inner chamber temperature uniformity.
- LCD display 30-stage program control , round move , ladder operating, intelligent PID temperature control system, high precise temperature control PT100 sensor equipped, high precise and stability import humidity sensor component to control humidity automatically.
- Double door structure, with high quality stalinite to observe samples , outer door with magnetic strip, convenient to on and off, good sealing.
- Intelligent defrosting function ensure device long-time run without frost.
- Inner humidifying system with small particles , good humidity uniformity , low water consumption and function of alarm when is short of water.



Patent No. : ZL 2018 3 0095051.6

### Main Technical Parameters:

Model	MJX-70BL	MJX-150BL	MJX-250BL
<b>Function</b>	Forced convection		
Temp. Range	No humidification: 0 ~ 65°C; humidification: 10 ~ 65°C		
Temp. Resolution Ratio	0.1°C		
Temp. Motion	High Temp.: ± 0.5°C Low Temp.: ± 1°C		
Temp. Uniformity	± 1°C		
Humidity Range	45% ~ 95%RH		
Humidity Stability	± 5%RH		
<b>Structure</b>	Mirror Stainless Steel		
Inner Chamber	Cold rolling steel electrostatic spraying exterior		
Outer Shell	Polyurethane		
Insulation Layer	Stainless steel heater		
Heater	1.8kW	2.0kW	2.2kW
Power Rating	Air cooled hermetic compressor		
Compressor	R134a		
Cryogen	Automatic control intelligent defrosting		
Defrost Structure	External		
Humidifying Method	Plastic test hole Φ43mm		
Test Hole	Standard ozone-free type		
Sterilizing Lamp	Universal socket (one)		
Controlled External Power Supply	30 Segment LCD program		
Temp. Control Mode	Touch button setting		
Temp. Setting Mode	Measuring temperature: LCD upper row; Setting temperature: the lower row		
Temp. Display Mode	AUTO		
Humidity Control Mode	0-99.9h*30Segment(with timing wait function)		
Timer	Fixed value operation, timing function, auto stop, Program operation		
Operation Function	PT100		
Sensor	High precision anti-condensation		
Humidity Sensor	Deviation correction, Menu key lock, Power failure parameter memory		
Additional Function	additional character: UV light, loop self diagnosis		
<b>Safety Device</b>	Over temperature alarm, over humidity alarm, water shortage alarm		
<b>Specification</b>	Inner Chamber Size(W*L*H)(mm)		
	415*350*500	490*400*750	500*515*950
	571*591*1051	646*641*1301	656*741*1501
	680*676*1235	751*730*1490	761*830*1690
	70L	150L	250L
		15kg	
	5	9	12
		35mm	
	AC220V/8.2A	AC220V/9.1A	AC220V/10A
	69/92	86/114	100/139
<b>Accessory</b>	Shelf		
	2		
	Shelf Rack		
	4		
<b>Optional Accessories</b>	Spare shelf, Touche screen controller, RS485 interface USB interface and software, Printer, Recorder, Remote Control, U-disk storage		

## Constant Temperature and Humidity Incubators

Constant temperature experiment and environmental test of humidity range.

### Characteristics:

- Unique internal wind circulation structure design, breeze circulate fan make inner chamber temperature uniformity.
- Large LCD display, multiple data display at the same time, 30-stage program control, round move , ladder operating, with function of loop self-diagnose and sensor fault alarm.
- Intelligent PID temperature control system, high precise temperature control PT100 sensor equipped, high precise and stability import humidity sensor component to control humidity automatically.
- Double door structure, with high quality stalinite to observe samples, outer door with magnetic strip, convenient to on and off, good sealing.
- Intelligent defrosting function ensure device long-time run without frost.
- Inner humidifying system with small particles , good humidity uniformity , low water consumption and function of alarm when is short of water.



Patent No. : ZL 2018 3 0095051.6

### Main Technical Parameters:

Model	HWS-70B	HWS-150B	HWS-250B
<b>Function</b>	Forced convection		
Temp. Range	No humidification: 0-65°C; humidification: 10-60°C		
Temp. Resolution Ratio	0.1°C		
Temp. Motion	High Temp.: ± 0.5°C Low Temp.: ± 1°C		
Temp. Uniformity	± 1°C		
Humidity Range	45%~95%RH		
Humidity Stability	± 5%RH		
<b>Structure</b>	Mirror Stainless Steel		
Inner Chamber	Cold rolling steel electrostatic spraying exterior		
Outer Shell	Polyurethane		
Insulation Layer	Stainless steel heater		
Heater	1.8kW	2.0kW	2.2kW
Power Rating	Air cooled hermetic compressor		
Compressor	R134a		
Cryogen	Automatic control intelligent defrosting		
Defrost Structure	External		
Humidifying Method	Plastic test hole Φ43mm		
Test Hole	Standard ozone-free type		
Sterilizing Lamp	Universal socket (one)		
Controlled External Power Supply	30 Segment LCD program		
Temp. Control Mode	Touch button setting		
Temp. Setting Mode	Measuring temperature: LCD upper row; Setting temperature: LCD lower row		
Temp. Display Mode	AUTO		
Humidity Control Mode	0-99.9h*30Segment(with timing wait function)		
Timer	Fixed value operation, timing function, auto stop, Program operation		
Operation Function	PT100		
Sensor	High precision anti-condensation		
Humidity Sensor	Deviation correction, Menu key lock, Power failure parameter memory		
Additional Function	additional character: UV light, loop self diagnosis		
<b>Safety Device</b>	Over temp alarm, Over humidity alarm, Water shortage alarm		
<b>Specification</b>	Inner Chamber Size(W*L*H)(mm)		
	415*350*500	490*400*750	500*515*950
	571*591*1051	646*641*1301	656*741*1501
	680*676*1235	751*730*1490	761*830*1690
	70L	150L	250L
		15kg	
	5	9	12
		35mm	
	AC220V/8.2A	AC220V/9.1A	AC220V/10A
	69/92	86/114	100/139
<b>Accessory</b>	Shelf		
	2		
<b>Optional Accessories</b>	Spare shelf, USB Interface and software, printer, Recorder, remote control, U-disk storage		

## Climate Chamber With Illumination

Light culture of microorganism, cell tissue, seedling, insect and small animal.

### Characteristics:

- Double door structure, with high quality stalinite to observe sample.
- 7.0 inch true color touch screen display, convenient to view historical temperature data and appointment auto start and stop.
- Full spectrum 0-30000LX adjustable multiple levels, 30 sections programmed Temp. LUX and time controller.
- Full spectrum LED top light source design, high illumination, low thermal radiation, long service life, removable Light partition, adjustable layer space.
- The evaporator temperature is collectively controlled by the backflow valve and expansion valve, greatly prolonging the service life of the compressor.
- High precision digital independent temperature controller.
- Imported high quality temperature sensor and compressor.



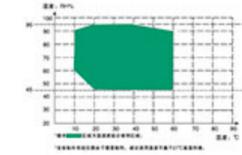
Patent No. : ZL 2018 3 0095051.6

### Main Technical Parameters:

Model	FLI250	FLI350	FLI450	
<b>Cycle Mode</b>	Forced convection, Rear micropore. Supply air in front of the plate			
<b>Function</b>	Temp. Range	Without illumination: 5-65°C; With illumination: 10-65°C		
	Temp. Resolution Ratio	0.1°C		
	Temp. Motion	± 0.5°C		
	Temp. Uniformity	± 1.0°C		
	Illumination(LX)	Full spectrum 0-30000LX many degrees for adjusting		
<b>Structure</b>	Inner Chamber	SUS304 satinless steel sheet		
	Outer Shell	Cold rolling steel electrostatic spraying exterior		
	Thermal Insulation Material	Polyurethane		
	Light barrier	Standard four layer full spectrum LED lamp board		
	Heater	Stainless steel heating tube		
	Power Rating	2.0kw	2.2kw	2.5kw
	Compressor	Imported air-cooled sealed compressor		
	Coolant	R134A		
<b>Controller</b>	Defrosting Structure	Automatic		
	Leading wire hole	The outer diameter of standard inflation port interface is 10mm		
	Temp. control mode	30 segment program		
	Temp. setting mode	Touch screen settings		
	Temp. display mode	7.0 inch true color touch screen display		
	Operation function	Fixed temperature operation, timing function, auto stop. Appointment start. Program Operation		
	Program pattern	Standard configuration		
	Sensor	PT100		
	Additional function	Make an appointment to switch on and off, query the historical temperature data curve, store and export the U disk data, correct the deviation, lock the menu key, power failure compensation, power failure memory, circuit self diagnosis and intelligent defrosting		
	<b>Safety device</b>	Over temperature will automatically cut off the heating, long-term under temperature cut off the refrigeration system, protect the sample; loop self diagnosis		
<b>Specification</b>	Inner Chamber size(W*L*H)(mm)	600*500*840	630*580*960	630*670*1100
	Exterior size (W*L*H)(mm)	794*726*1600	824*806*1720	824*896*1860
	Packing size (W*L*H)(mm)	893*863*1850	943*923*1960	923*1033*2110
	Volume	250L	350L	450L
	Load per rack	15kg		
	Shelf space	120mm		
	Supply ( 50/60Hz ) Current rating	AC220V/4.5A	AC220V/5.0A	AC220V/5.5A
<b>Accessory</b>	NW/GW ( kg )	220/250	250/290	300/340
	Shelf	4		
	Shelf plate	8		
<b>Optional accessories</b>	Light barrier, USB interface and upper computer software, printer, wireless SMS alarm, co2 concentration control			

## Climate Chamber with Humidity Control Plant Growth Chamber

Light culture of microorganism, cell tissue, seedling, insect and small animal under the control of precise humidity.



Patent No. : ZL 2018 3 0095051.6

### Characteristics:

- Double door structure, with high quality stalinite to observe sample.
- 7.0 inch true color touch screen display, convenient to view historical temperature data and appointment auto start and stop.
- Full spectrum Multi-stage adjustable, 30 sections programmed Temp. LUX ,RH controller.
- Full spectrum LED top light source design, high illumination, low thermal radiation, long service life, removable Light partition, adjustable layer space.
- Internal humidification system. Small humidifier particles, high humidity uniformity, small water consumption, with automatic water intake, water shortage alarm function.
- The evaporator temperature is collectively controlled by the backflow valve and expansion valve, greatly prolonging the service life of the compressor.
- Imported high quality temperature sensor and compressor.

### Main Technical Parameters:

Model	FPG250	FPG350	FPG450	
<b>Cycle Mode</b>	Forced convection, Rear micropore. Supply air in front of the plate			
<b>Function</b>	Temp. Range	Without illumination: 5-65°C; With illumination: 10-65°C		
	Temp. Resolution Ratio	0.1°C		
	Temp.Motion	± 0.5°C		
	Temp. Uniformity	± 1.0°C		
	Illumination(LX)	Full spectrum 0-30000LX many degrees for adjusting		
<b>Structure</b>	Humidity Range	40% - 95% RH		
	Humidity Motion	± 5% RH		
	Inner Chamber	SUS304 satinless steel sheet		
	Outer Shell	Cold rolling steel electrostatic spraying exterior		
	Thermal Insulation Material	Polyurethane		
	Light barrier	Standard four layer full spectrum LED lamp board		
	Heater	Stainless steel heating tube		
	Power Rating	2.0kw	2.2kw	2.5kw
<b>Controller</b>	Compressor	Imported air-cooled sealed compressor		
	Coolant	R134A		
	Defrosting Structure	Automatic		
	Leading wire hole	The outer diameter of standard inflation port interface is 10mm		
	Temp. control mode	30 sections program		
	Temp. setting mode	Touch screen settings		
	Temp. display mode	7.0 inch true color touch screen display		
	Operation function	Fixed temperature operation, timing function, auto stop. Appointment start. Program operation		
	Program pattern	Standard configuration		
	Sensor	PT100 Temp.Sensor, Imported chip humidity sensor		
<b>Safety device</b>	Appointment start/off, Historical temperature and humidity data curve query, U-disk data storage and export, deviation correction, Menu key locking, power failure compensation, power failure memory, loop self diagnosis, intelligent defrosting			
<b>Specification</b>	Inner Chamber size(W*L*H)(mm)	600*500*840	630*580*960	630*670*1100
	Exterior size (W*L*H)(mm)	794*726*1600	824*806*1720	824*896*1860
	Packing size (W*L*H)(mm)	893*863*1850	943*923*1960	923*1033*2110
	Volume	250L	350L	450L
	Load per rack	15kg		
	Shelf space	120mm		
	Supply ( 50/60Hz ) Current rating	AC220V/4.5A	AC220V/5.0A	AC220V/5.5A
<b>Accessory</b>	NW/GW ( kg )	225/255	260/300	310/350
	Shelf	4		
	Shelf plate	8		
<b>Optional accessories</b>	Light barrier, USB interface and upper computer software, printer, wireless SMS alarm, CO2 concentration control			

## Semiconductor Refrigeration Incubator /Peltier Incubator

Semiconductor refrigeration low temperature incubator uses Peltier (semiconductor) refrigeration technology to achieve low temperature control of the incubator, which has the advantages of energy saving, environmental protection and high efficiency, and has heating and cooling functions. It is an ideal constant temperature equipment for the cultivation of bacteria, mold and other microorganisms in a low temperature environment, as well as sample preservation, plant cultivation, plant breeding and other tests. Widely used in environmental protection, health and epidemic prevention, drug testing, agriculture and livestock, aquatic products, universities, research institutes and other fields of major laboratories.



### Characteristics:

- LCD color screen, PID control technology, temperature is accurate and stable;
- It has a glass inner door, which is convenient for experimental observation. At the same time, the chamber behind the glass door is equipped with a door control switch, and the switch is linked with the control system;
- The new semiconductor refrigeration system ensures the long-term stable operation of the refrigeration system;
- Stacking foot design. The machine can be stacked to save space, which can improve usage efficiency (same specification).

### Main Technical Parameters:

Modle		FPI-45	FPI-70
Cycle Mode		Forced Convection	
Function	Temp.Range	20°C~65°C	
	Temp.Resolution Radio	0.1°C	
	Temp.Motion	± 0.5°C	
	Temp.Uniformity	± 0.5°C(37°C)	
Structure	Inner Chamber	Mirror Stainless Steel	
	Outer Shell	Cold rolling steel electrostatic spraying exterior	
	Insulation Layer	Polyurethane	
	Heater	Heating Element	
	Refrigerator	Semiconductor Chilling Plate	
Power Rating		0.35kW	0.5kW
Controller	Temp.Control Mode	Intelligent PID	
	Temp.Setting Mode	Touch button setting	
	Temp.Display Mode	Display on LCD	
	Timer	0-9999min(with timing wait function)	
	Operation Function	Fixed temperature operation, fixed timing operation, auto stop.	
	Additional Function	Sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory	
Sensor		PT100	
Safety Device		Over temperature sound-light alarm	
Specification	Inner Chamber Size(W*L*H)(mm)	330*320*430	415*350*500
	Exterior Size(W*L*H)(mm)	415*445*758	500*475*828
	Packing Size(W*L*H)(mm)	535*565*933	620*595*1003
	Volume	45L	70L
	Current Rating(50/60HZ)	AC220V/1.6A	AC220V/2.3A
	NW/GW(KG)	20/25	35/45
Optional Accessories			

## Vertical constant temperature shaker (LCD)

### Characteristics:

- Imported compressors, imported bearings, servo motors.
- Air duct design, not direct blowing, good temperature uniformity.
- The minimum speed is 10rpm, it can start and stop at ultra-low speed to protect the sample.
- Make an appointment to start the function.
- Solenoid valve defrost function can ensure long-term low temperature operation.
- Can be set to run forward, reverse, and alternately run.



### Main Technical Parameters:

Name	Vertical constant temperature shaker (LCD)					
Model	FSI-175	FSI-175C	FSI-335	FSI-335C	FSI-580	FSI-580C
Control Mode	PID microcomputer processing chip					
Cycle Mode	Forced convection					
Shaking Mode	Convolution					
Display Mode	LCD liquid crystal display					
Drive Mode	Multidimensional drive					
	3 Axes			4 Axes		
USB data download system	Yes ( optional )					
Control System	( Standard mode; continuous mode; programmable mode (multi-stage temperature, speed, time control) )					
Rotary Speed Range ( rpm )	0, 20-350 ( Can do static training, forward and reverse )			0, 20-280 ( Can do static training, forward and reverse )		
Rotary Accuracy ( rpm )	± 1					
Amplitude ( mm )	Φ26 ( customizable Φ35 ( 20-250rpm/min), Φ50 ( 20-2000rpm/min )					
Max Capacity ( clamp )	100ml*60 or 250ml*38 or 250ml*22 or 1L*16		100ml*100 or 250ml*56 or 500ml*44 or 1L*24		250ml*90 or 500ml*72 or 1000ml*42	
Max Capacity ( stick mat )	100ml*60 or 250ml*36 or 500ml*24 or 1L*16		100ml*120 or 250ml*70 or 500ml*44 or 1L*24		250ml*112 or 500ml*76 or 1000ml*42	
Standard configuration	250ml*24		250ml*28 500ml*22		250ml*45 500ml*36	
Plate Size ( mm )	500*360		710*455		950*550	
Timer Range ( h/min )	0-9999 ( with timing function, continuous operating )					
Temperature Range ( °C )	Ambient temperature+5-65	4-65 ( 25°C )	Ambient temperature+5-65	4-65 ( 25°C )	Ambient temperature+5-65	4-65 ( 25°C )
Temperature Accuracy ( °C )	± 0.1					
Temperature Uniformity ( °C )	± 0.5 ( 37°C, Effective Working Area )					
Temperature Motion ( °C )	≤ 0.1 ( 37°C )					
Tray Quantity	( 2 pieces )					
External Size ( mm )	700*580*1280		950*700*1280		1200*800*1630	
Capacity ( L )	175		335		580	
Power ( W )	600	850	900	1150	1100	1400
Power Supply	AC220 ± 10% 50-60HZ					
Ambient Temperature ( °C )	5-30					
Additional Function	Ultra-low start, adjustable start speed, automatic overspeed protection, watchdog timer, parameter memory, call recovery, refrigeration unit overload protection and call delay start, automatic defrost, upper and lower limit over temperature sound and light alarm, automatic stop when the door is opened (optional), with lighting, ultraviolet disinfection function (optional), setting parameter view, monitoring temperature and correction of ambient temperature, Touch screen (optional)					

## Desktop Constant Temperature Shaker(LCD)

### Characteristics:

- Ultra-low speed start, auto-lock when speed out of control, adjustable start-up speed.
- Multi-stage speed, temperature and time control system. Can set different speed, temperature and time in one time, automatic change operating mode during working.
- Silent fan design, forced air convection mode and unique air circulation structure, ensure good temperature uniformity.
- Automatic refrigerating mode, environmental friendly cryogen, automatic control for refrigerating system on and off based on ambient temperature.
- Intelligent refrigerate without frost, automatic defrosting function, can set time and interval time for defrosting, ensure machine in stable operation under low temperature. With refrigerating delay start-up function to protect compressor.
- Three rotation mode for chose positive rotation inversion reciprocal and mutual conversion.
- LCD display temperature, time and speed on same screen.
- With fault self-diagnosis, indicating fault location and fault code, to help find problem and solve problem.
- High precision speed control PID feedback control, avoid damage from long time motor working at low speed causing motor under over heating.
- Equipped with servo motor, control speed accuracy, high and low speed performance.
- Selected imported compressors meet the international environmental protection requirements, safe fluorine free refrigeration, and low noise.
- With ultraviolet disinfection (including air duct disinfection) and lighting functions.



### Main Technical Parameters:

Desktop Constant Temperature Shaker(LCD)	
Name	FSI-70
Model	FSI-70C
Control Mode	PID Microcomputer Processing Chip
Cycle Mode	Forced Air Convection
Oscillation Mode	Cyclotron Oscillation
Display Mode	LCD Display
Drive Mode	Single-Dimensional Drive
USB Data Download System	Yes ( optional )
Control System	Standard Mode;Continuous Mode;Programable Mode(multi-stage temperature,speed and time control)
Rotary Speed Range ( rpm )	0, 20-450 ( Static Cultivate, Positive And Negative Rotation )
Rotary Accuracy ( rpm )	± 1
Amplitude ( mm )	Φ26
Max Capacity (clamp)	100ml x 23 or 250ml x 15 or 500ml x 9 or 1000ml x 6 or 2000ml x 4
Max Capacity ( stick mat )	100ml x 30 or 250ml x 20 or 500ml x 9 or 1L x 8 or 2L x 4
Standard Configuration	500ml x 3 250ml x 3 100ml x 4 50ml x 4
Plate Size ( mm )	450 x 410
Timer Range ( h/min)	0-9999 (with timing function,continuous operating)
Temperature Range ( °C )	Temperature Range+5-65      4-65 ( 25°C )
Temperature Accuracy ( °C )	± 0.1
Temperature Uniformity ( °C )	± 0.5 ( 37°C, Effective Working Area)
Temperature Motion ( °C )	≤ 0.1 ( 37°C )
Tray Number	1 piece
External Size ( mm )	750 x 710 x 520
Capacity ( L )	70
Power ( W )	550      650
Power Supply	AC220 ± 10% 50-60HZ
Ambient Temperature ( °C )	5-30
Additional Function	Ultra-low speed start, adjustable start speed, automatic over speed protection, timer monitor,parameter memory,electricity incoming recovery, refrigeration unit overload protection and electricity incoming delay start, automatic defrozing,upper and lower limits over temperature acoustooptical alarm, automatic stop by door opened (optional),LED light, UV sterilizing function (optional), parameter setting for viewing, calibration for monitor temperature and ambient temperature.

## Multifunctional Water Baths Shaker

- Low noise and steady reciprocating oscillating water bath cultivation equipment.

### Characteristics:

- Large-screen background LCD, shows the measured value, set value and the setting time and the remaining time.
- High-precision temperature control. resume operation automatically if power off unexpectedly.
- High-precision speed control: PID feedback control, motor speed stable and accurate. the precision ± 1rpm slow start design, automatically locked after speed out of control, adjustable start speed prevent splashing of shaking bottle liquid.
- Tube rack and water bath flask seat for standard configuration, with function of water bath.



Patent No. : ZL 2018 3 0095051.6

### Main Technical Parameters:

Model	FWS-30	
Mode	Reciprocating oscillation + thermostatic water bath	
Function	Operating Temp Range	RT-100°C
	Tem. Resolution Ratio	0.1°C
	Tem. Motion	± 0.1°C
	Tem. Uniformity	± 0.2°C
	Reciprocal Oscillation Amplitude	16 or 24mm (Ex-factory is 16mm)
	Reciprocating Frequency Range	20 ~ 180 ( r/min )
Structure	Reciprocating Frequency Accuracy	± 1rpm
	Water Tank	Mirror stainless steel
	Outer Shell	Cold rolling steel electrostatic spraying exterior
	Upper Cover	Mirror stainless steel
	Insulating Layer	Polyurethane
	Heater	Stainless steel electric heater tube
	Driving Mode	Crankshaft+ double link + four wheels
	Shelf	Mirror stainless steel
	Power Rating	1.5kW
	Controller	Tem. Control Mode
Reciprocating Control Mode		
Setting Mode		Touch button setting
Tem. Display Mode		
Speed Display Mode		LCD Display
Timer		0 ~ 9999 min
Operation Function		Fixed value operation, timing function, auto stop, quickly stop start
Temperature Sensor		PT100
Speed Sensor		Hoare
Additional Function		Deviation correction, menu keys locked, power-off memory
Safety Device		Over temperature alarm, menu locked, water full or shortage protection, Motor shaft lock protection;
Specification	Water Tank Size (W*L*H)(mm)	500*310*200
	Exterior Size (W*L*H)(mm)	828*360*425
	Packing Size (W*L*H)(mm)	912*480*605
	Spring Shock Basket Size ( mm )	395*250
	Shock Basket Largest Single Size (ml /piece)	100ml*12/250*8/500*6
	Inside Volume	31L
	Shock Basket Bearing	5kg/layer
	Current Rating ( 50Hz )	AC220V/6.8A
	NW/GW (kg)	20/30
	Accessories	

## Constant Temperature Shaking Incubator

Small desktop constant temperature shaking culture equipment.

### Characteristics:

- Large-screen LCD, can be continuous, accurate, real-time shows temperature, speed, working time. menu operation interface, easy to operate.
- Microcomputer control temperature and oscillation frequency with timing functions, built-in power-off protection can automatically resume operation after power on.
- Unique air duct breeze circulation, with better temperature uniformity; large observation window, Easy to observe sample, easy to be opened and closed
- Speed control : intelligent brushless DC motor, high speed accuracy, slow start design, auto lock if speed out of control. adjustable starting speed to prevent the splash of shake flask liquid.
- With function of cutting off UV lamp by open door.
- Studio at the bottom waterproof, Spills will not affect the normal operation of the machine.



Patent No. : ZL 2018 3 0095051.6

### Main Technical Parameters:

Model	FS-50B	FS-70B	
<b>Shaking Mode</b>			
Cyclotron Oscillation			
Function	Amplitude	Φ20mm	
	Temp. Resolution	0.1℃	
	Temp. Motion	± 0.1℃	
	Temp. Uniformity	± 1℃	
	Temp. Range	RT+5 ~ 65℃	4 ~ 65℃ ( 25℃ )
	Rotary Speed	30 ~ 300rpm	30 ~ 300rpm
Rotary Speed Precision	± 1rpm		
Structure	Chamber Material	Mirror Stainless Steel	
	Outer Shell	ABS	
	Observation Window Material	Imported resin	
	Thermal Insulation Material	Polyurethane	
	Cooling System	No	Yes
	Coolant	No	R134a
	Heater	Stainless steel heating tube	
	Drive Mode	Three-axis level	
	Standard Tray Style	Universal spring grid tray	
	Air Circulation Mode	Horizontal convection	
Power Rating	0.6kW	0.8kW	
Controller	Temp. Control Mode	LCD PID intelligent control	
	Cyclotron Control Mode	Automatic changes of rotation direction	
	Setting Mode	Touch button setting	
	Temp. Display Mode	LCD display	
	Speed Display Mode	0 ~ 9999min	
	Timer	Fixed value operation, timing function, bidirectional automatic switchover, auto stop, quick stop start	
	Operation Function	PT100	
	Temperature Sensor	Hoare	
	Speed Sensor	Yes	
	Gating System	Deviation correction, menu keys locked, power-off memory	
<b>Safety Device</b>			
over temperature alarm, menu locked, gating system, power-off protection, plugging turn protection			
Specification	Inner Chamber Size (W*L*H)(mm)	455*380*290	560*390*320
	Exterior Size (W*L*H)(mm)	500*640*480	600*770*500
	Packing Size (W*L*H)(mm)	802*620*685	913*720*698
	Shelf Size ( mm )	380*320	480*315
	Max capacity of Shelf for single specification(ml/pc)	100ml*16/250ml*9/500ml*5/1000ml*4	100ml*24/250ml*12/500ml*8/1000ml*6
	Inside Volume	50L	70L
	Shelf Load Bearing	≤10kg/layer	≤15kg/layer
	Shelf Layer	1	
	Power Supply ( 50/60Hz ) Current Rating	AC220V/2.5A	AC220V/3.5A
	NW/GW ( kg )	45/55	65/85
Optional Flask Clip Tray Wireless Short Message Alarm System			
	100ml*16/250ml*9/500ml*5/1000ml*4	100ml*24/250ml*12/500ml*6/1000ml*6	

## Orbital shaker

Experiment of sample shake in solution, fixation of electrophoretic gel separate band, oscillate shaking of coomassie blue dyeing and decolorization, Immobilization, staining and development of silver nitrate.

### Characteristics:

- Temperature setting, measuring, and running state show on one large LCD screen, with rotary encoder switch.
- The operating parameters can be remembered and protected. automatically resume operation if the power supply cut off.
- Speed control : intelligent brushless DC motor, high speed accuracy, slow start design, auto lock if speed out of control. adjustable starting speed to prevent the splash of shake flask liquid.



### Main Technical Parameters:

Model	FBS-O10	FBS-O20	
<b>Shaking Mode</b>			
Cyclotron oscillation			
Function	Amplitude	φ 10mm	φ 20mm
	Rotary Speed Range	100~500rpm	30~250rpm
	Rotary Speed Precision	± 1rpm	
Structure	Out Shell	ABS	
	Motor Type	Brushless motor	
	Tray	Anodizing Alluminum	
	Driving Mode	Four horizontal points	
	Power Rating	0.03kW	
Controller	Cyclotron Control Mode	LCD, PID intelligent control	
	Cyclotron Setting Mode	Rotary coding switch	
	Speed display Mode	LCD display	
	Timer	0 ~ 9999 min ( with timing function )	
	Operation Function	Fixed value operation, timing function, bidirectional automatic switchover, auto stop, quick stop start	
	Speed Sensor	Hoare	
Additional Function	Deviation calibration, power-off memory		
<b>Safety Device</b>			
Intelligent low speed start, blocking protection			
Specification	Exterior Size (W*L*H)(mm)	365*450*222	
	Packing Size (W*L*H)(mm)	470*550*325	
	Tray Size ( mm )	320*320	
	Load Per Tray	≤5kg	
	Tray Number	1	
	Supply ( 50/60Hz ) Current Rating	AC220V/0.14A	
	NW/GW ( kg )	10/15	
<b>Optional Type</b>			
Universal spring grid tray			
Flask Clip Tray 250ml*9/500ml*4			

## 1200°C Ceramic Fiber Muffle Furnace

○ Sintering, melting, elemental analysis and physical measurement within 1200°C of precise control.

### Characteristics:

- Mirror stainless steel mouth, long-term use will not change color.
- Imported double insulated ceramic liner, stable performance.
- Vacuum forming polycrystalline mullite fiber furnace, high efficiency insulation.
- In the double shell, the air sleeve is insulated, and the double guiding air passage.
- High-precision micro-computer controller and precision sensor are perfectly integrated, and the temperature is accurate.

### SX4 model also has the following characteristics:

- Import time control system and high precise sensor with sensitive response, high precision and good stability.
- Adding exhaust devices is beneficial to ashing.
- Split design, circuit detachable, easy to maintenance and repair.
- P model is program temperature control type. program temperature controller can programme multistage program, Simplifies the experimental process and realizes automatic control and operation.



Patent No. : ZL 2015 3 0282033.5

### Main Technical Parameters:

Model	SX3-2.5-12	SX3-5-12	SX3-8-12	SX3-10-12	SX3-36-12	
	SX3-2.5-12B	SX3-5-12B	SX3-8-12B	SX3-10-12B		
Model	SX4-2-12	SX4-7-12	SX4-12-12	SX4-16-12	SX4-36-12	
	SX4-2-12B	SX4-7-12B	SX4-12-12B	SX4-16-12B		
Model	SX4-2-12P	SX4-7-12P	SX4-12-12P	SX4-16-12P	SX4-36-12P	
	SX4-2-12PB	SX4-7-12PB	SX4-12-12PB	SX4-16-12PB		
<b>Heating Mode</b>						
Alloy wire heating in three sides left; right; top side.						
<b>Function</b>	Temp. Range	100-1200°C				
	Temp. Resolution Ratio	1°C				
	Temp. motion	± 1°C				
	Temp. Rising time to max temp	≤ 30min				
<b>Structure</b>	Chamber material	Ceramic fiber				
	Outer shell	Without B: Cold rolling steel electrostatic spraying exterior; B type: SUS 304 Embossed stainless steel				
	Insulation layer	Ceramic fiber				
	Heater	Alloy heating wire				
	Power rating	1.5kw	3.0kw	4.5kw	6.0kw	9.0kw
Exhaust hole φ 30mm(chimney size 80*60mm)						
<b>Controller</b>	Temp. control mode	SX3 Type : domestic Xianmen Yudian single-stage temperature controller SX4 Type:Japaness conduction single-stage temperature controller SX4-P:Japaness Fuji color LCD 64- segment programmed temperature controller				
	Temp. setting mode	Touch button setting				
	Temp. display mode	Measuring temperature: the upper row, setting temperature: the lower row				
	Timer	Without P: No Timing Function; SX4-P: 0-99 hours and 59 minutes(with Timing Waiting Function) SX3: 00-3200min				
	Operation function	Fixed temperature operation, timing function, auto stop.				
	Additional function	Sensor deviation correction, Temperature overshoot self-tuning, Internal parameter locked, Power-off parameter memory				
Sensor High precision K-type sensor						
<b>Safety device</b>						
Manual door security lock, over temperature sound-light alarm, door opening electrical outage, over-temperature protection, thermocouple failure						
<b>Specification</b>	Inner Chamber size(W*L*H)(mm)	120*200*80	200*300*120	200*300*200	250*400*160	300*400*300
	Exterior size (W*L*H)(mm)	450*685*600	530*785*640	530*785*720	600*895*700	630*885*820
	Packing size (W*L*H)(mm)	570*770*740	650*870*780	655*875*865	720*980*845	750*970*965
	Volume	2L	7L	12L	16L	36L
	Current rating (50/60HZ)	AC220V/6.6A	AC220V/13.6A	AC220V/20.4A	AC380V/9.9A	AC380V/13.6A
	NW/GW (kg)	33/37	45/50	62/68	77/96	87/106
<b>Optional type</b>						
Air port, USB interface, 5.0inch ture color screen, programmable controller with USB date storage function						

## 1600°C Ceramic Fiber Muffle Furnace

○ It is used for sintering, melting and analyzing metal, nonmetal and other compound materials in laboratories of universities, research institutes and industrial and mining enterprises.

### Characteristics:

- Mirror stainless steel furnace mouth, long-term use will not change color.
- Vacuum-forming polycrystalline mullite fiber furnace, high efficiency insulation.
- Double shell, the air sleeve heat insulation, and double air guiding passage.
- High-purity silicon-molybdenum rod heating, and with standard exhaust chimney.
- High precision program controller, with imported sensor and imported voltage regulating module.
- With leakage protection, thermocouple failure, door opening electrical outage, over-temperature protection and sound-light alarm safety device.
- Lockable handle, quick detachable structure,easy to maintenance and repair.
- Standard with insulated gloves, crucible tongs and Alumina load bearing board.



### Main Technical Parameters:

Model	30 segment Domestic controller	SX4-2-16	SX4-4-16	SX4-8-16	SX4-12-16	SX4-20-16	SX4-36-16
	64 Segment Import Controller (Model With P)	SX4-2-16P	SX4-4-16P	SX4-8-16P	SX4-12-16P	SX4-20-16P	SX4-36-16P
Model	30 Segment 7.0 Inch Touch Screen controller(Model With PL)	SX4-2-16PL	SX4-4-16PL	SX4-8-16PL	SX4-12-16PL	SX4-20-16PL	SX4-36-16PL
	<b>Function</b>	Temp. Range	Max 1600°C ( Long time continuous working temperature 1500°C )				
Temp. Accuracy		± 1°C					
Temp. Resolution Ratio		1°C					
Temp. RISING Time To Max Temp		≤ 130min					
<b>Structure</b>	Furnace Body	Polycrystalline Mullite Fiber					
	Outer Shell	Cold rolling steel with electrostatic Spraying exterior					
	Chamber Size	150*90*150	150*150*150	300*150*150	300*200*200	300*260*260	300*400*300
	Exhaust Hole	OD φ 22, ID φ 18					
	Heater	Silicon Molybdenum Rod					
Heating Power	3KW	5.5KW	9KW	10KW	12KW	15KW	
<b>Controller</b>	Temp. Control	No Letter Model : LED Programmed Controller; P Type: LCD Imported Programmed Controller; PL Type: 7.0-inch touch screen program controller, with curve viewing and USB data storage functions.					
	Temp. Control Mode	Intelligent Microcomputer PID Control					
	Display Mode	No Letter Model: 4 keys Settings P Type: 5 keys Settings PL Type: Touch Type Operation					
	Timer	No Letter Model: 0-9999min P Type: 0-99 hour 59min PL Type: 0-9999min					
	Operation Function	Constant Value Operation Or Program Operation					
	Sensor	S-type Thermocouple					
Additional Function	Heating Start Stop Button, Sensor Fault Aarm, Temperature Overshoot Self Setting, Temperature Correction						
<b>Safety Device</b>							
Overtemperature Alarm,Leakage Protection, Door Opening Heating							
<b>Specification</b>	Exterior Size (W*L*H)(mm)	600*755*1100	600*815*1100	750*815*1100	750*865*1150	750*925*1210	750*1065*1250
	Packing Size (W*L*H)(mm)	760*925*1310	760*985*1310	910*985*1310	910*1045*1360	910*1105*1420	910*1265*1460
	Volume	2L	4L	8L	12L	20L	36L
	Current Rating (50/60HZ)	AC220V 50Hz		AC220V/AC380V		AC380V 50Hz	
	Nw/Gw (kg)	70/90	80/100	110/130	150/170	175/195	270/320
	<b>Optional Type</b>						
485 Communication ,U Disk Data Storage							

## 1700°C Ceramic Fiber Muffle Furnace

It is used for sintering, melting and analyzing metal, nonmetal and other compound materials in laboratories of universities, research institutes and industrial and mining enterprises.

### Characteristics:

- Mirror stainless steel furnace mouth, long-term use will not change color.
- Vacuum-forming polycrystalline mullite fiber furnace, high efficiency insulation.
- Double shell, the air sleeve heat insulation, and double air guiding passage.
- High-purity silicon-molybdenum rod heating, and with standard exhaust chimney.
- High precision program controller, with imported sensor and imported voltage regulating module.
- With leakage protection, thermocouple failure, door opening electrical outage, over-temperature protection and sound-light alarm safety device.
- Lockable handle, quick detachable structure, easy to maintenance and repair.
- Standard with insulated gloves, crucible tongs and Alumina load bearing board.



### Main Technical Parameters:

Model	30 segment Domestic controller	SX4-2-17	SX4-4-17	SX4-8-17	SX4-12-17	SX4-20-17	SX4-36-17
	64 Segment Import Controller (Model With P)	SX4-2-17P	SX4-4-17P	SX4-8-17P	SX4-12-17P	SX4-20-17P	SX4-36-17P
Function	30 Segment 7.0 Inch Touch Screen controller (Model With PL)	SX4-2-17PL	SX4-4-17PL	SX4-8-17PL	SX4-12-17PL	SX4-20-17PL	SX4-36-17PL
	Temp. Range	Max 1700°C (Long time continuous working temperature 1650°C)					
Temp. Accuracy	± 1°C						
Temp. Resolution Ratio	1°C						
Temp. RISING Time To Max Temp	≤ 140min						
Structure	Furnace Body	HHR Polycrystalline Mullite Fiber					
	Outer Shell	Cold rolling steel with electrostatic Spraying exterior					
	Chamber Size	150*90*150	150*150*150	300*150*150	300*200*200	300*260*260	300*400*300
	Exhaust Hole	Di φ 22, De φ 18					
	Heater	Silicon Molybdenum Rod					
Heating Power	3KW	5.5KW	9KW	10KW	12KW	15KW	
Controller	Temp. Control	No Letter Model : LED Programmed Controller; P Type: LCD Imported Programmed Controller; PL Type: 7.0-inch touch screen program controller, with curve viewing and USB data storage functions.					
	Temp. Control Mode	Intelligent Microcomputer PID Control					
	Display Mode	No Letter Model: 4 keys Settings P Type: 5 keys Settings PL Type: Touch Type Operation					
	Timer	No Letter Model: 0-9999min P Type: 0-99 hour 59min PL Type: 0-9999min					
	Operation Function	Constant Value Operation Or Program Operation					
	Sensor	B-type					
	Additional Function	Heating Start Stop Button, Sensor Fault Alarm, Temperature Overshoot Self Setting, Temperature Correction					
	Safety Device	Overtemperature Alarm, Leakage Protection, Door Opening Heating					
	Specification	Exterior Size (W*L*H)(mm)	600*755*1100	600*815*1100	750*815*1100	750*865*1150	750*925*1210
Packing Size (W*L*H)(mm)		760*925*1310	760*985*1310	910*985*1310	910*1045*1360	910*1105*1420	910*1265*1460
Volume		2L	4L	8L	12L	20L	36L
Current Rating (50/60Hz)		AC220V 50Hz			AC380V 50Hz		
Nw/Gw (kg)		70/90	80/100	110/130	150/170	175/195	270/320
Optional Type		485 Communication ,U Disk Data Storage					

## New Laminar Flow Cabinet

Vertical flow, airflow direction in the work space down from top to bottom.

### Characteristics:

- Vertical manifold and quasi-closed 304 stainless steel table surface can effectively prevent external gas penetration into the operating clean area.
- Centrifugal fan, stable speed, low noise, light touch air volume control system, five-stage wind speed control, speed 0.2-0.6m/s adjustable, (initial: 0.6m/s; Final: 0.2m/s).
- High quality air filter without partition, good purification effect.
- LCD color screen controller (with sterilization timer, built-in socket instrument controllable switch, front window status display, can set three interlock, cumulative work timing, remote control).
- CJ-1DIII, CJ-2DIII, CJ-1SIII, CJ-2SIII: wind speed sensor.
- Automatic cutting off UV lamp function by opening glass.



### Main Technical Parameters:

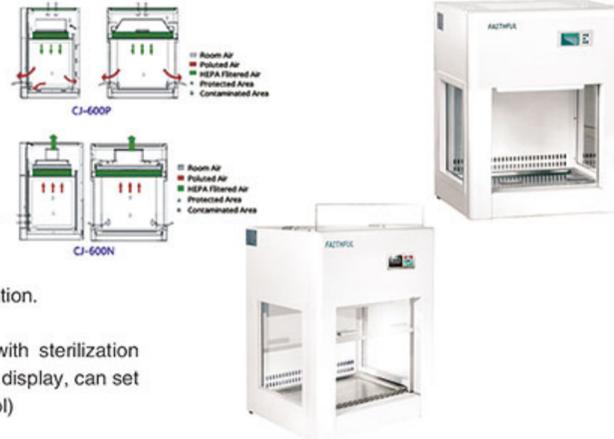
Model	CJ-1D II	CJ-1S II	CJ-2D II	CJ-2S II	
	CJ-1D III	CJ-1S III	CJ-2D III	CJ-2S III	
Applicable Station	one person one side	one operator two side	two person one side	two person two side	
Airflow Direction	Vertical				
Function	Cleanliness	Class 100			
	Collection Efficiency	0.3um partical ≥ 99.995%			
	Colony count	≤ 0.5/Vessel ( petri dish is φ 90mm )			
	Wind Speed	initial: 0.6; final: 0.2 ( m/s )			
	Wind Speed Range	0.2-0.6 ( m/s )			
	Noise Level	≤ 62db			
	Vibration Semi-peak Value	≤ 3um			
	Illumination Intensity	≥ 500LX ( Activity Center			
Composition	Work Surface	50kg			
	Inner Chamber	SUS304 Stainless steel plate			
	Outer Shell	Cold rolling steel electrostatic spraying exterior			
	Operation Door	Tempered Glass			
	HEPA filter ( mm )	900*640*50 one piece	1300*640*50 one piece		
	Pre-Filter	464*360*5 one piece	712*360*5 one piece		
	Fluorescent Lamp	16W*2	24W*2		
	UV Lamp	20W*1	30W*1		
	Top Fan	180W one piece	180W two pieces		
	Rated Power	240W	440W		
Controller	Display	LCD color screen			
	Wind Speed Control	Intelligent multi-level adjustable			
	Additional Function	Built in 2 multi-purpose sockets, high-efficiency filter, sterilization lamp replacement prompt, foot level adjustment, lighting sterilization one key on/off			
Specification	Inner Size ( W*L*H )	920*690*650	920*690*650	1320*690*650	1320*690*650
	Exterior Size ( W*L*H )	1060*763*1834	1060*763*1834	1460*763*1834	1460*763*1834
	Packing Size ( W*L*H ) mm	1210*885*1999	1210*885*1999	1610*885*1999	1610*885*1999
	Max power of universal socket	Single socket: 800W			
	Current Rating ( 50/60Hz )	AC220V/1.8A		AC220V/3.6A	
	NW/GW kg	160/200	165/205	200/250	205/255
Optional Accessories	NO.				

## Mini Laminar Flow Cabinet Mini Fume Hood

Table type clean equipment.

### Characteristics:

- HEPA filter with efficiency: 99.995% at 0.3um.
- Microprocessor control system, LED Display.
- Manual front window is 5mm toughened glass, anti-oxidation.
- Air speed adjustable.
- Desktop type, with a handle, saving space and easy to move.
- Pre-filter is polyester fiber, washable and anti-ultraviolet radiation.
- Automatic cutting off UV lamp function by opening glass.
- CJ-600PII, CJ-600NII have color screen LCD controller (with sterilization timing, built-in socket controllable switch, front window status display, can set three position interlock, cumulative work timing, remote control)



Patent No. : ZL 2018 3 0095053.5

### Main Technical Parameters:

Model	CJ-600P	CJ-600N		
	CJ-600PII	CJ-600NII		
Applicable Scope	Protect experiment samples	Protect operator and environment		
Airflow Direction	Vertical			
Function	Cleanliness	Class 100		
	High Efficiency Filter	0.3um particle ≥99.999%		
	Colony count	≤0.5↑/vessel ( petri dish is φ 90mm )		
	Wind Speed	initial: 0.6;final:0.2 ( m/s )	>0.5 ( m/s )	
	Wind Speed Range	0.2-0.6 ( m/s )		
	Noise Level	≤62db		
	Vibration Semi-peak Value	≤3um		
	Work Surface Bearing	10kg		
	Composition	Inner Chamber	SUS304 Stainless steel plate	
		Outer Shell	Cold rolling steel electrostatic spraying exterior	
Operation Door		Tempered Glass		
Operation Door Biggest Opening		310mm		
Pre-Filter		Polyurethane		
LED Lamp		8W*1		
UV Lamp		8W*1		
Controller	Top Fan	90W one piece		
	Display	LED (Model II: LCD color screen)		
	Wind Speed Control	Intelligent multi-level adjustable		
Specification	Additional Function	One key to open and close lighting sterilization		
	Inner Size ( W*L*H ) ( mm )	480*340*370		
	Exterior Size ( W*L*H ) ( mm )	550*460*700		
	Packing Size ( W*L*H ) mm	680*590*850		
	Max Power	110W		
	Current Rating ( 50/60Hz )	AC220V/0.5A		
	NW/GW kg	36/41		
Optional Accessories	CJ-600PII, CJ-600NII: wind speed sensor			

## Laminar Flow Cabinet (Desktop Type)

Table type clean equipment.

### Characteristics:

- HEPA filter with efficiency: 99.995% at 0.3um.
- Microprocessor control system, LED Display, Air speed adjustable, HEPA filter and sterilization lamp replacement reminder function
- Desktop type, which can place higher equipment inside. Standard with universal power socket, optional internal and external USB port.
- Pre-filter is polyester fiber, washable and anti-oxidation.
- Working plate can load up to 50KG, UV lamp will be turn off automatically when open the glass window to protect users.



Patent No.: ZL 2019 2 0769812.0

### Main Technical Parameters:

Model	CJ-1DZ	
Applicable Station	one person one side	
Airflow Direction	Vertical	
Function	Cleanliness	Class 100(ISO Class 5)
	Collection Efficiency	0.3um particle ≥99.995%
	Colony count	≤0.5/vessel ( petri dish is φ 90mm )
	Wind Speed	initial: 0.5;final: 0.2 ( m/s )
	Wind Speed Range	0.2-0.5 ( m/s )
	Noise Level	≤62db
	Vibration Semi-peak Value	≤3um
	Illuminat Lntensity(Lx)	≥500LX( Activity Center )
	Work Surface	50kg
	Composition	Inner Chamber
Outer Shell		Cold rolling steel electrostatic spraying exterior
Operation Door		Tempered Glass
HEPA Filter ( mm )		780*533*50 one piece
Pre- Filter ( mm )		532*446*5 one piece
Fluorescent Lamp		8W*1
UV Lamp		8W*1
Top Fan		160W one piece
Controller	Rated power	180W
	Display	LED
Specification	Wind Speed Control	Intelligent multi-level adjustable
	Additional Function	Buit in 1 multi-purpose socket,high-efficiency filter,sterilization lamp replacement prompt,foot level adjustment, open the door and cut off UV function
Optional	Inner Size ( W*L*H)mm	788*613*700
	Exterior Size (W*L*H)mm	852*749*1062
	Packing Size( W*L*H )mm	972*870*1292
	Max power of universal socket	800W
	Current Rating ( 50/60Hz )	AC220V/0.8A
	NW/GW kg	90/120
		USB internal and external data connection socket, color LCD controller, Special configuration for 3D printer

## CLASS II A2 Biosafety Cabinet

○ Table type clean equipment.

### Characteristics:

- Color 7.0 inch touch screen controller
- Standard with high precision thermal wind sensor
- With reservation timing sterilization function, three-level authority management function, high efficiency filter, sterilization lamp service life display, built-in socket instrument controllable switch function, front window status display function, can set three position interlock function, cumulative work timing function.
- Optional: ULPA Filter



### Main Technical Parameters:

Model	FS-600IIA2	FS-950IIA2	FS-1350IIA2	FS-1550IIA2	FS-1850IIA2	
Classification	A2: 30% efflux, 70% internal circulation					
Function	Cleanliness	Class 100				
	Collection Efficiency	0.3um partical ≥ 99.995%				
	Colony count	≤ 0.5 ↑ / vessel ( petri dish is φ 90mm )				
	Noise Level	≤ 67db				
	Vibration Semi-peak Value	≤ 5um				
	Downflow Velocity	0.33 ± 0.025m/s				
	Inflow Velocity	0.53 ± 0.025m/s				
	Lumination	Average luminance ≥ 650lx, the measured value of each illuminance ≥ 430lx				
Total air exhaust of system	230m³/h	363m³/h	500m³/h	591m³/h	705m³/h	
Composition	Work surface	SUS304Stainless steel plate				
	Outer Shell	Cold rolling steel electrostatic spraying exterior				
	Operation Door	Tempered Glass				
	HEPA filter ( mm )	570*380*69 570*460*69	520*420*69 980*495*69	920*420*69 1380*470*69	1120*420*69 1580*495*69	1420*420*69 1880*495*69
	Fluorescent Lamp Power	8W*2 ( LED )	8W*2 ( LED )	16W*2 ( LED )	16W*2 ( LED )	16W*2 ( LED )
	UV Light Power	15W*1	15W*1	40W*1	40W*1	40W*1
	Fan	125W one piece	734W one piece	734W one piece	860W one piece	860W one piece
	Rated Power	1030W	1600W	1800W	2200W	2200W
	Working height of front window	200mm	200mm	200mm	200mm	200mm
	Maximum height of front window	280mm	440mm	440mm	440mm	440mm
Controller	Display	Full color 7.0-inch touch screen				
	Additional Function	Reservation timing sterilization function, three-level authority management function, high efficiency filter, sterilization lamp service life display, built-in socket controller to control switch function, front window status display function, three position interlock function, cumulative work timing function				
Specification	Operating Area Size ( W*L*Hmm )	600*500*540	950*625*628	1350*652*600	1550*625*628	1850*625*628
	Exterior size ( W*L*Hmm )	700*650*1919	1100*795*2250	1500*772*2235	1700*795*2250	2000*795*2250
	Packing Size ( W*L*Hmm )	830*780*1362	1230*925*1655	1630*902*1680	1830*925*1655	2130*925*1655
	Max Power of Universal Socket	Single socket: 800W				
	NW/GW kg	160/200	294/354	320/400	368/428	401/461

## Magnetic Stirrer

○ Magnetic mixing equipment with heating.

### Characteristics:

- Heating power and stirring speed is stepless adjustable.
- With adjustable thermometer rack, stainless steel rods and the stir bar.
- SH-(C) series: Ceramic Plate



### Main Technical Parameters:

Patent No. : ZL 2018 3 0095053.5

Model	SH-2A	SH-2B	SH-2	SH-3A	SH-3B	SH-3	
	SH-2A ( C )	SH-2B ( C )	SH-2 ( C )	SH-3A ( C )	SH-3B ( C )	SH-3 ( C )	
Function	Max. Volume (ml)	-	2000	2000	-	5000	5000
	Speed (r.p.m)	-	100-2000		-	100-2000	
	Working Time	Continuous					
	Minimum Revolution (r.p.m)	-	100	100	-	100	100
	Max.Temp. ( °C )	380	-	380	380	-	380
Structure	Exterior	Cast aluminium, Surface spraying / Ceramic Coated					
	Plate Size(mm)	120 × 120			170 × 170		
	Driving Mode	-	Motor		-	Motor	
	Motor Power (W)	-	10		-	20	
	Heating Power(kW)	0.18	-	0.18	0.5	-	0.5
Controller	Stir Bar	-	PTFE		-	PTFE	
	Continuous Operation	Yes					
	Setting Mode	Scale					
	Speed Display Mode	-	Scale		-	Scale	
	Timer	No					
Specification	Operation Function	No					
	Temp. Sensor	No					
	Exterior Size (W*L*H)(mm)	200 × 120 × 90			265 × 185 × 190		
	Packing Size (W*L*H)(mm)	250 × 180 × 120			280 × 210 × 220		
	Plate Size ( mm )	120 × 120			170 × 170		
	Plate Load	3KG			10KG		
	Power Supply ( 50/60Hz )	110V or 220V					
Current Rating							
NW/GW (kg)	1.9/3	1.9/3	1.9/3	2.2/3.4	2.2/3.4	2.2/3.4	

## Ceramic Magnetic Stirrer

○ Magnetic stirring ceramic equipment with heating.

### Characteristics:

- Stretched shell and cover prevent leaking.
- Heating and stirring can proceed simultaneously, Fully enclosed heating plate, no flame, fast heating, strong durability.

### ■ New digital model Ceramic Magnetic Stirrer with the following function:

#### ■ SH-4C

- Setting temperature precisely.
- large LCD display, temperature and rotate speed can be displayed simultaneously.
- Double sensor: outer PT100 sensor to control liquid temperature precisely, inner K model sensor to control hot plate temperature.

#### ■ SH-II-4C

- Setting temperature and stirrer speed precisely and no button of stirrer speed.
- With speed switch to start or stop the stirring at any time.
- Timing function (0-9999min), time adjustable under artificial requirement. Audible and visual alarm equipped.
- Double sensor: outer PT100 sensor to control liquid temperature precisely, inner K model sensor to control hot plate temperature.
- One key to shift inside and outside sensor easily and precisely.
- Large display can indicate temperature, rotational speed and timing at the same time.



Patent No. : ZL 2018 3 0095053.5

### Main Technical Parameters:

Model		SH-4A	SH-4B	SH-4	SH-4C	SH-II-4C
Mode		Heating	Stirring	Heating + Stirring	Digital+ Heating + Stirring	
Function	Max. Volume (ML)	-	5000	5000	5000	5000
	Speed (r.p.m)	-	200 ~ 2000			
	Working Time	Continuous				
	Minimum Revolution ( R.P.M.)	-	200	200	200	200
	Max. Temp ( °C )	380	-	380	350	350
Structure	Exterior	Iron plate welding, surface spraying				
	Heating Plate	Ceramic coated				
	Driving Mode	-	Motor			
	Motor Power (W)	-	20	20	20	20
	Heating Power(kW)	0.6	-	0.6	0.6	0.6
	Stir Bar	no	PTFE			
Controller	Continuous Operation	yes				
	Setting Mode	Scale			Digital	
	Speed Display Mode	Scale			Digital	Digital
	Timer	no				yes
	Operation Function	no				yes
	Sensor	no			PT100	PT100
Specification	Exterior Size (W*L*H)(mm)	320 x 190 x 125				
	Packing Size (W*L*H)(mm)	390 x 240 x 230				
	Plate Size ( mm )	190 x 190				
	Plate Load	10KG				
	Power Supply( 50/60Hz ) Current Rating	110V or 220V				
	NW/GW (kg)	5/6	5/6	5/6	5/6	5/6

## Overhead Stirrer

○ Large capacity mechanical mixing equipment.

### Characteristics:

- Stainless steel head restraints, more durable.
- Digital display model, stirring has three modes: positive, reverse, positive and negative alternating.
- Digital type: brushless motor.
- SH-II-8C is new big power type, high torque, can be used for mixing mud.



Patent No. : ZL 2021 3 0287232.0

### Main Technical Parameters:

Model		SH-II-6	SH-II-6C	SH-II-7C	SH-II-8C
Function	Max. Volume (L)	20	20	40	40
	Digital	-	LCD	LCD	LCD
	Speed (r.p.m)	100~2500	100~2500	100~2500	100~2500
	Working Time	Continuous			
	Minimum Resolution (r.p.m)	100	100	100	100
Structure	Exterior	Plastic shell			
	Driving Mode	Motor			
	Motor Power (kW)	0.06	0.06	0.08	0.12
Controller	Continuous Operation	Yes			
	Setting Mode	Scale	Digital	Digital	Digital
	Speed Display Mode	Scale	Digital	Digital	Digital
	Timer	No	Yes	Yes	Yes
	Max. Viscosity(Mpas)	10000	10000	15000	50000
Specification	Exterior Size (W*L*H)(mm)	115 x 95 x 240			
	Packing Size (W*L*H)(mm)	400 x 250 x 210			
	Plate Size ( mm )	200 x 300			
	Plate Load	50KG			
	Power Supply ( 50/60Hz ) Current Rating	100~240V			
	NW/GW (kg)	7/8	7/8	7.5/8.5	8/9

## Mini Magnetic Stirrer

○ Beautiful mini mixing equipment.

### Characteristics:

- Shell is all plastic material ( ABS ), lightweight and durable.
- Mixing smoothly and fast, stirring speed stepless adjustable
- SH-II-2: with LED light      ● SH-II-3: without LED light



Patent No. : ZL 2015 3 0547467.3

### Main Technical Parameters:

Model Mode		SH-II-2 With light	SH-II-3 Without light
Function	Max. Volume (ml)	1000	
	Speed (r.p.m)	100 ~ 500 or 100 ~ 2000	
	Working Time	Continuous	
	Minimum Resolution ( R.P.M.)	100	
Structure	Exterior	Plastic	
	Driving Mode	Motor	
	Motor Power	0.01kW	
	Continuous Operation	Yes	
Controller	Setting Mode	Scale	
	Speed Display Mode	Scale	
	Timer	No	
	Operation Function	No	
Specification	Speed &Temp. Sensor	No	
	Exterior Size (W*L*H)(mm)	φ 138*60	
	Packing Size (W*L*H)(mm)	210*170*88	
	Plate Size ( mm )	φ 128	
	Power Supply ( 50/60Hz ) Current Rating	100V~240V	
	NW/GW (kg )	0.6/0.7	

## Four Rows Magnetic stirrer

○ Magnetic mixing equipment.

### Characteristics:

- 4 unit stainless hotplate can work together or separately.
- Stirring speed is stepless adjusted.



Patent No. : ZL 2015 3 0547467.3

### Main Technical Parameters:

Model		SH-6	SH-7
Function	Max. Volume (ml)	1000ml*4	3000ml*4
	Speed (r.p.m)	100 ~ 2000	
	Working Time	Continuous	
	Minimum Resolution	100	
Structure	Exterior	Cold plate spraying, stainless steel plate	
	Driving Mode	Motor	
	Motor Power	0.01kW	0.02kW
	Continuous Operation	Yes	
Controller	Setting Mode	Scale	
	Speed Display Mode	Scale	
	Timer	No	
	Operation Function	No	
Specification	Exterior Size (W*L*H)(mm)	300*270*80	400*320*120
	Packing Size (W*L*H)(mm)	340*310*110	440*360*150
	Plate Size ( mm )	300*250	400*300
	Plate Load	5KG	20KG
	Power supply ( 50/60Hz ) Current Rating	110 or 220V	
	NW/GW (kg )	3/3.6	6/7

## Electronic Control Heating Mantle

○ Up to 450 °C general heating.

### Characteristics:

- Electronic temperature regulation mode with characteristics of stepless speed adjustable.



Patent No. : ZL2019 2 0769431.2

### Main Technical Parameters:

Model		98-I-B									
Function	Capacity(ml)	50	100	250	500	1000	2000	3000	5000	10000	20000
	Heating Mode	Surface heat-conduction									
	Surface Max.Temp.( °C)	450°C									
Structure	Heating Element	Nichrome wire									
	Shell	Cold roller steel plate, surface spraying									
	Insulation Layer	High quality aluminum silicate cotton									
	Heat Power (kW)	0.08	0.1	0.15	0.25	0.35	0.45	0.6	0.8	1.2	2.5
Controller	Working Mode	Continuous									
	Exterior Size (mm)	c 220 x 165			c 280 x 220		c 330 x 230	c 340 x 245	c 350 x 250	c 425 x 320	c 470 x 340
Specification	Packing Size (mm)	230 x 230 x 195			290 x 290 x 300		340 x 340 x 350	360 x 360 x 300	390 x 390 x 310	430 x 430 x 350	510 x 510 x 380
	Voltage(V)	100 ~ 120V or 200 ~ 240V					200 ~ 240V				
	N.W.(Kg)	2.5			5.5		6.5	7.5	8	9.8	16
	G.W.(Kg)	2.8			6		7	8	9.2	12	20

● We can produce different size heating mantle as customer' s requirement. For example: 4000ml,6000ml,50 liters, 100 liters and etc.

## Magnetic Stirring Heating Mantles

○ Up to 450 °C general heating equipment.

### Characteristics:

- Heating and stirring can be used simultaneously, stepless speed adjustable.



Patent No. : ZL2019 2 0769431.2

### Main Technical Parameters:

Model		98-II-B									
Function	Capacity(ml)	50	100	250	500	1000	2000	3000	5000	10000	20000
	Heating Mode	Surface heat-conduction									
	Surface Max.Temp.(°C)	450°C									
Structure	Speed Range	0 ~ 1600rpm									
	Heating Element	Nichrome wire									
	Stir Bar	PTFE									
	Insulation Layer	High quality aluminum silicate cotton									
Controller	Shell	Cold roller steel plate,surface spraying									
	Motor Power	0.01kW									
Specification	Heating Power (kW)	0.08	0.1	0.15	0.25	0.35	0.45	0.6	0.8	1.2	2.5
	Working Mode	Continuous									
	Exterior Size (mm)	c 220 x 165			c 280 x 220		c 330 x 230	c 340 x 245	c 350 x 250	c 425 x 320	c 470 x 340
	Packing Size (mm)	230 x 230 x 195			290 x 290 x 300		340 x 340 x 350	360 x 360 x 300	390 x 390 x 310	430 x 430 x 350	510 x 510 x 380
Specification	Voltage(V)	100 ~ 120V or 200 ~ 240V					200 ~ 240V				
	N.W. (Kg)	2.5			5.5		6.5	7.5	8	9.8	16
	G.W. (Kg)	2.8			6		7	8	9.2	12	20

● We can produce different size heating mantle as customer' s requirement. For example: 4000ml,6000ml,50 liters, 100 liters and etc.

## Digital Display Heating Mantle

Up to 450 °C general heating equipment.

### Characteristics:

- PID single screen temperature controller. fast heating, good temperature uniformity and high precise temperature control.
- Several rows type, produce as customer inquiry, beautiful shape, easy to operate and effective. Beautiful shape, easy to operate and effective.
- PT100 Temperature sensor, with adjustable sensor rack and stainless rods.



Patent No. : ZL2019 2 0769431.2

### Main Technical Parameters:

Model		98-II-C									
Function	Capacity(ml)	50	100	250	500	1000	2000	3000	5000	10000	20000
	Heating Mode	Surface heat-conduction									
	Surface Max.Temp.(°C)	450°C									
	Temperature control range	RT+20 ~ 250°C									
Structure	Heating Element	Nichrome wire									
	Insulation Layer	High quality aluminum silicate cotton ( with CE )									
	Shell	Cold roller steel plate,surface spraying									
	Heating Power (kW)	0.08	0.1	0.15	0.25	0.35	0.45	0.6	0.8	1.2	2.5
Specification	Working Mode	Continuous									
	Exterior Size (mm)	c 220 x 165		c 280 x 220		c 330 x 230	c 340 x 245	c 350 x 250	c 425 x 320	c 470 x 340	
	Packing Size (mm)	230 x 230 x 195		290 x 290 x 300		340 x 340 x 350	360 x 360 x 300	390 x 390 x 310	430 x 430 x 350	510 x 510 x 380	
	Voltage(V)	100 ~ 120V or 200 ~ 240V					200 ~ 240V				
	N.W. (Kg)	2.5		5.5		6.5	7.5	8	9.8	16	
	G.W. (Kg)	2.8		6		7	8	9.2	12	20	

● We can produce different size heating mantle as customer' s requirement. For example: 4000ml,6000ml,50 liters, 100 liters and etc.

## Digital & Magnetic Stirring Heating Mantles

Up to 450 °C general heating equipment.

### Characteristics:

- PID single screen temperature controller.
- Heating and stirring can be used simultaneously, stepless speed adjustable.
- PT100 temperature sensor, with adjustable sensor rack and stainless rods.



Patent No. : ZL2019 2 0769431.2

### Main Technical Parameters:

Model		98-III-B									
Function	Capacity(ml)	50	100	250	500	1000	2000	3000	5000	10000	20000
	Heating Mode	Surface heat-conduction									
	Surface Max.Temp.(°C)	450°C									
	Temperature control range	RT+20 ~ 250°C									
Structure	Speed Range	0 ~ 1600rpm									
	Heating Element	Nichrome wire									
	Stir Bar	PTFE									
	Insulation Layer	High quality aluminum silicate cotton									
	Shell	Cold roller steel plate,surface spraying									
	Motor Power	0.01kW									
Specification	Heating Power (kW)	0.08	0.1	0.15	0.25	0.35	0.45	0.6	0.8	1.2	2.5
	Working Mode	Continuous									
	Exterior Size (mm)	c 220 x 165		c 280 x 220		c 330 x 230	c 340 x 245	c 350 x 250	c 425 x 320	c 470 x 340	
	Packing Size (mm)	230 x 230 x 195		290 x 290 x 300		340 x 340 x 350	360 x 360 x 300	390 x 390 x 310	430 x 430 x 350	510 x 510 x 380	
	Voltage(V)	100 ~ 120V or 200 ~ 240V					200 ~ 240V				
	N.W. (Kg)	2.5		5.5		6.5	7.5	8	9.8	16	
G.W. (Kg)	2.8		6		7	8	9.2	12	20		

● We can produce different size heating mantle as customer' s requirement. For example: 4000ml,6000ml,50 liters, 100 liters and etc.

## Several Rows Magnetic Stirring Heating Mantles

Up to 450 °C general heating stirring equipment.

### Characteristics:

- 98-IV-B: Electronic temperature regulation heating mode.
- 98-V-B: Electronic temperature regulation heating mode.heating and stirring can proceed simultaneously; stepless speed adjustment.
- 98-V-B model without 100ml



### Main Technical Parameters:

Model		98-IV-B/98-V-B											
Function	Specification (ml)	2 x 100	2 x 250	2 x 500	2 x 1000	4 x 100	4 x 250	4 x 500	4 x 1000	6 x 100	6 x 250	6 x 500	6 x 1000
	Heating Mode	Surface heat conduction											
	Surface Max. Temperature	450°C											
	Temp. Range	Rt+vfc20 ~ 250°C											
Structure	Speed Range	98-IV-B :no / 98-V-B :0-1400rpm											
	Heating Element	Nickel chromium alloy wire											
	Stir Bar	98-IV-B :no / 98-V-B :PTFE											
	Outer Shell	Cold rolled steel plate, surface spraying											
Specification	Motor Power	98-IV-B :no / 98-V-B :0.01kW											
	Heating Power (kW)	2 x 0.1	2 x 0.15	2 x 0.25	2 x 0.35	4 x 0.1	4 x 0.15	4 x 0.25	4 x 0.35	6 x 0.1	6 x 0.15	6 x 0.25	6 x 0.35
	Work Model	Continuous											
	Exterior Size (mm)	280*140*106	320*160*170	360*180*180	420*210*200	530*140*160	610*160*170	690*180*180	810*210*200	820*140*160	940*160*170	1060*180*170	1240*210*200
Specification	Packing Size (mm)	320*180*190	360*190*200	400*220*210	570*180*190	570*180*190	650*190*200	730*220*210	850*250*230	860*180*190	980*190*200	1100*220*210	1280*250*230
	Voltage	100 ~ 120V or 200 ~ 240V											
	N.W. (Kg)	4	4	4	7	8	8	8	14	12	12	12	21
	G.W. (Kg)	5	5	5	8	10	10	10	16	15	15	15	24

- Accessories: Adjustable Sensor Rack with Stainless Steel Rods or Horizontal rods.
- We can produce different rows heating mantle as customer' s requirement.

## Hot Plate

Uniform temperature hot plate.

### Characteristics:

- Aluminum hot plate, uniform surface temperature
- Heating up fast and uniform, heating power is stepless adjustable
- Digital hot plate has the more functions as follows:  
Digital display can read the temperature more clearly.



Patent No. : ZL 2019 2 0769297.6

### Main Technical Parameters:

Model		SH-5A/5C	SH-6A/6C	SH-7A/7C	SH-8A/8C	SH-9A/9C
Structure	Working Time	Continuous				
	Max Temp. ( °C )	350°C				
	Outer Shell	Iron plate welding, surface spraying				
	Hot Plate	Aluminum tensile				
Controller	Heating Power(W)	1200	1800	2000	2600	3000
	Continuous Operation	Yes				
	Setting Method	Scale / Digital				
	Timer	No / Digital				
	Operation Function	No				
	Temperature Sensor	K Mode				
	Exterior Size (W*L*H)(cm)	30*30*18	35*45*18	40*40*18	35*60*18	40*60*18
	Packing Size (W*L*H)(cm)	34*37*22	42*50*22	45*47*22	42*65*22	47*65*22
	Plate Size ( mm )	300*300	350*450	400*400	350*600	400*600
	Plate Load	20KG	30KG	30KG	38KG	40KG
Power Supply ( 50/60Hz )	220V					
NW/GW (kg)	6.2/7	8.4/9.6	8.5/9.8	11/13	12/14.2	

## New Hot Plate, Graphite Hot Plate

### Characteristics:

- Aluminum hot plate or Graphite hot plate, uniform surface temperature.
- Heating up fast and uniform.
- Digital hot plate: digital display indicating temperature of hot plate clearly.



Patent No. : ZL 2019 2 0769297.6

### Main Technical Parameters:

Model	SH-5	SH-8	SH-9
	SH-5B	SH-8B	SH-9B
	SH-II-5B	SH-II-8B	SH-II-9B
Max Temp. (°C)	SH-5,SH-8,SH-9: 320°C SH-5B,SH-8B,SH-9B: 350°C SH-II-5B,SH-II-8B,SH-II-9B: 400°C		
Outer Shell	Iron plate welding, surface spraying		
Hot plate	Aluminum tensile: SH-5, SH-5B,SH-8,SH-8B, SH-9, SH-9B: Graphite Plate: SH-II-5B, SH-II-8B,SH-II-9B:		
Heating power(W)	SH-5: 800 SH-5B: 1200 SH-II-5B: 1800	SH-8: 1500 SH-8B: 2400 SH-II-8B: 3000	SH-9: 2200 SH-9B: 3500 SH-II-9B: 4500
Setting method	Scale: SH-5, SH-8, SH-9 Digital: SH-5B,SH-8B,SH-9B, SH-II-5B, SH-II-8B, SH-II-9B		
Timer	No / Digital		
Temperature sensor	K model		
Temp. accuracy	SH-5,SH-8,SH-9: ± 10% SH-5B,SH-8B,SH-9B,SH-II-5B,SH-II-8B,SH-II-9B: ± 1%		
Plate Temp. Uniformity	SH-5,SH-8,SH-9: ± 15% SH-5B,SH-8B,SH-9B,SH-II-5B,SH-II-8B,SH-II-9B: ± 10%		
Exterior size (W*L*H) (mm)	340*370*220	420*500*220	470*650*220
Packing size (W*L*H) (mm)	SH-5 / SH-5B: 520*380*250 SH-II-5B: 550*410*270	SH-8 / SH-8B: 560*520*250 SH-II-8B: 600*560*270	SH-9 / SH-9B: 660*620*250 SH-II-9B: 700*660*270
Plate size (mm)	300*300	450*350	600*400
Plate load	20KG	30KG	40KG
Power supply (50/60Hz)	220V		
NW/GW (kg)	SH-5 / SH-5B: 9 / 10 SH-II-5B: 12 / 13.5	SH-8 / SH-8B: 11 / 12 SH-II-8B: 19 / 20	SH-9 / SH-9B: 15 / 17 SH-II-9B: 28 / 30

Note: SH-9B, SH-II-9B: without plug.

## Thermostatic Water Baths

○ Used for precision constant temperature and auxiliary.



### Characteristics:

- Inner tank: 1 hole, 2 holes, 2 rows & 4 four holes, 2 rows & 6 holes are stainless steel stretching inner chamber.
- 1 row & 4 holes, 1 row & 6 holes, 2 rows & 8 holes are stainless steel inner chamber.

### Main Technical Parameters:

Name	1 hole	1 row & 2 holes	1 row & 4 holes	1 row & 6 holes	2 rows & 4 holes	2 rows & 6 holes	2 rows & 8 holes	
Model	WB-3-1	WB-7-2	WB-13-4	WB-19-6	WB-12-4	WB-18-6	WB-23-8	
Heating mode	Bottom heating, water temperature natural convection							
Function	Temp. Range	Rt+5~100°C						
	Temp. Resolution Ratio	0.1°C						
	Temp. Motion	± 0.5°C						
	Temp. Uniformity	± 1°C						
Structure	Water Sink	Stainless steel, surface electrolysis treatment						
	Outer Shell	Cold rolled steel plate, surface electrostatic powder spray						
	Heater	Stainless steel U type heating tube						
Power Rating	300W	600W	1000W	1500W	800W	1200W	2000W	
Controller	Temp. Control Mode	PID						
	Temp. Setting Mode	Touch button setting						
	Temp. Display Mode	Measuring temperature: display on the three digital tubes upper row, setting temperature: display on the lower row						
	Timer	0~999 min (with timing function)						
	Timing Function	Fixed temperature operation, timing function, auto stop.						
	Program Schema	Optional: multi-section program control						
Additional Function	Deviation correction, menu key lock, power failure back-up, power-off parameter memory, PID adjustable							
Sensor	Thermal resistor							
Safety device	Over-temperature alarm, short-circuit protection							
Specification	Inner Chamber Size(W*L*H)(mm)	160*160*130	305*160*130	600*165*130	900*165*130	305*305*130	470*305*130	600*300*130
	Exterior Size (W*L*H)(mm)	200*210*210	340*210*210	635*165*210	930*210*210	340*350*210	510*350*210	635*340*210
	Packing Size (W*L*H)(mm)	270*270*275	405*275*275	715*260*275	1000*260*275	415*415*275	575*410*275	700*415*275
	Internal Volume	3.3L	6.3L	12.8L	19.3L	12L	18.6L	23.4L
	Cover Aperture	∅ 120mm						
	Cover Material	PP Plastic						
	Cover Number Per Hole	5						
	Power Supply (50/60Hz) Current Rating	AC220V 1.4A	AC220V 2.7A	AC220V 4.5A	AC220V 6.8A	AC220V 3.6A	AC220V 5.4A	AC220V 6.8A
	NW/GW (kg)	3KG/3.5KG	4KG/5KG	7KG/8KG	8KG/10KG	6KG/7KG	8KG/9KG	9KG/11KG

## Thermostatic Water Baths (Stretching Inner Chamber)

○ Used for precision constant temperature and auxiliary.



Patent No. : ZL201920769902X

### Characteristics:

- Stainless steel stretching inner container and roof cover.
- Intelligent temperature controller with PID program, digital tube display and function of timing and over-temperature protection.
- Add the electric drain switch, one-button operation, convenient to drain, Note:single hole water baths have no drain function.
- Power off when water shortage to ensure the safe operation of the product.

### Main Technical Parameters:

Classification Specifications		1 hole	1 row & 2 holes	2 rows & 4 holes	2 rows & 6 holes
Model	DK-2000-IIIIL	√	√	√	√
Heating Mode		Nature water convection heat transfer			
Function	Temp. Range	RT+5 ~ 100°C			
	Temp. Resolution Ratio	0.1°C			
	Temp. Motion	± 0.5°C			
	Temp. Uniformity	± 1.0°C			
Structure	Inner Chamber	Stainless steel			
	Outer Shell	Cold - rolled steel plate, resistance to chemical reagents coating on the surface			
	Heater	Stainless steel heating tube			
	Power Rating	0.4kW	0.5kW	1.0kW	1.5kW
Controller	Temp. Control Mode	PID			
	Temp. Setting Mode	Touch button setting			
	Temp. Display Mode	Measuring temperature displays on the three digital tubes upper row, set temperature displays on the lower row			
	Timer	0 ~ 9999min ( with timing wait function )			
	Operation Function	Fixed temperature operation, timing function, auto stop.			
	Program Mode	Optional			
	Additional Function	Deviation Correction, menu key locked, power failure back-up, power-off memory			
	Sensor	NTC			
Specification	Safety Device		Over temperature alarm		
	Inner Chamber Size(W*L*H)(mm)	150*135*150	300*135*150	325*300*150	500*300*150
	Exterior Size (W*L*H)(mm)	170*154*210	318*168*210	350*318*210	524*322*210
	Packing Size (W*L*H)(mm)	240*230*280	390*240*280	420*390*280	600*390*280
	Volume	3.4L	6.1L	14.6L	22.5L
	Load Per Rack	5kg			
	Shelf Number	1			
	Power Supply ( 50/60Hz ) Current Rating	AC220V/1.8A	AC220V/2.3A	AC220V/4.5A	AC220V/6.8A
	NW/GW (kg )	3.3/4	4.5/5	6/7	7.5/9

## Transparent Water Bath

○ Used for precision constant temperature and auxiliary.



Patent No. : ZL201920769902X

### Characteristics:

- Using innovative design structure, effectively prevent steam leakage.
- Intelligent temperature control instrument with high brightness digital display, light-touch type key has the advantages of simple operation and high precision temperature control.
- Shell, interior and cover of the product are all made of transparent engineering plastics, can clearly see the object to be heated.
- Power off when water shortage to ensure the safe operation of the product.

### Main Technical Parameters:

Model	DK-98-IV				
Capacity	2.6L	6L	9L	12L	20L
Voltage (V)	200-240V/100-120V				
Power (kW)	0.4	0.5	0.8	1.0	1.5
Temp. Motion (°C)	± 0.5	± 0.5	± 0.5	± 0.5	± 0.5
Temp. Range (°C)	Rt+5~100				
Temp. Sensitivity (°C)	≤ ± 1	≤ ± 1	≤ ± 1	≤ ± 1	≤ ± 1
Shelves Height (mm) Distance from bottom	100mm	100mm	100mm	150mm	100mm
Shelves Holes Diameter	φ 18.7mm*16	φ 18.7mm*32	φ 18.7mm*48	φ 18.7mm*48	φ 18.7mm*96
Inner Chamber Size (L*W*H)	143*130*150	290*145*150	280*220*150	285*225*200	485*285*150
Exterior Size (L*W*H)	254*190*193	401*190*193	400*260*190	401*276*242	610*338*200
Packing Size (L*W*H)	295*270*275	457*270*275	450*350*270	450*350*300	640*410*230
N.W.(KG)	2.1	3.1	3.5	3.9	6
G.W. (KG)	2.7	3.8	5	4.8	8.5

## Thermostatic Water Baths

○ Used for precision constant temperature and auxiliary.



**Characteristics:**

- SHHW21.420All model cover for the two holes water bath, can be used as a digital two holes water bath.
- SHHW21.600All model cover for the six holes water bath, can be used as a digital six holes water bath.

Patent No. : ZL201920769902X

**Main Technical Parameters:**

Model		HHW21.420All	SHHW21.420All	HHW21.600All	SHHW21.600All
Function	Temp Range	RT+5 ~ 65℃	RT+5 ~ 100℃	RT+5 ~ 65℃	RT+5 ~ 100℃
	Temp Resolution Ratio	0.1℃			
	Temp Motion	± 0.5℃			
	Temp Uniformity	± 1.0℃			
Structure	Inner Chamber	High quality hairline stainless steel plate			
	Outer Shell	Cold rolling steel electrostatic spraying exterior			
	Cover	High quality hairline stainless steel plate			
	Cover Circle	Without	With	Without	With
Controller	Test Tube Rack	Without	With	Without	With
	Heater	Stainless steel heating tube			
	Power Rating	0.5kW	1kW	0.75kW	2kW
	Temp Control Mode	PID			
	Temp Setting Mode	Touch button setting			
	Temp Display Mode	Measuring temperature: display on the three digital tubes upper row ; setting temperature: display on the lower row			
	Timer	0 ~ 999min			
	Operation Function	Fixed temperature operation, timing function, auto stop.			
	Program Function	No			
	Additional Function	Deviation correction, Menu key lock, Power-off compensation, Power failure memory			
Specification	Sensor	NTC			
	Safety Device	Over temperature alarm			
	Sink Size(W*L*H)(mm)	420*180*140		600*300*200	
	Exterior Size (W*L*H)(mm)	570*230*270		750*350*360	
	Packing Size (W*L*H)(mm)	720*320*380		900*440*440	
	Volume	11L		36L	
	Supply ( 50/60Hz ) Current Rating	AC220V/2.3A	AC220V/4.5A	AC220V/6.8A	AC220V/9.1A
NW/GW (kg)	8/9.5	8.5/10	17/19	18/20	
Optional Accessories	Different sizes can be customized, can add power off protection function when water shortage.				

## Thermostatic water tank (Stretching Inner Chamber)

**Characteristics:**

- The inner liner and water bath cover are processed using high-quality stainless steel stretching technology, and the surface is treated with anti-corrosion technology. The top cover is made of high-temperature resistant plastic material, which is lightweight and beautiful.
- Add a water discharge switch, one click operation, convenient for water discharge.
- The anti dry burning (water shortage and power outage) function ensures the safe operation of the product.



**Main Technical Parameters:**

Mode		HHW11L	SHHW11L	HHW30L	SHHW30L
Heating Mode		Nature water convection heat transfer			
Function	Temp. Range	RT+5-65℃	RT+5-100℃	RT+5-65℃	RT+5-100℃
	Temp. Resolution Ratio	0.1℃			
	Temp. Motion	± 0.5℃			
	Temp. Uniformity	± 1.0℃			
Structure	Inner Chamber	SUS304 stretching			
	Outer Shell	Cold rolling steel electrostatic spraying exterior			
	Heater	Stainless steel heating tube			
	Power Rating	0.3kW	0.6kW	1.0kW	1.5kW
Controller	Temp.Control Mode	PID			
	Temp. Setting Mode	Touch button setting			
	Temp. Display Mode	Measuring temperature displays on the three digital tubes upper row, set temperature displays on the lower row			
	Timer	0-9999min (with timing wait function)			
	Operation Function	Fixed temperature operation, timing function, auto stop.			
	Program Mode	Optional			
	Additional Function	Deviation Correction, menu key locked, power failure back-up, power-off memory			
	Sensor	NTC			
Safety Device		Over temperature alarm			
Specification	Inner Chambersize(W*L*H)(mm)	295*235*150	295*235*150	500*296*200	500*296*200
	Exterior Size(W*L*H)(mm)	360*297*345	360*297*345	565*358*395	565*358*395
	Packing Size(W*L*H)(mm)	390*327*395	390*327*395	595*388*445	595*388*445
	Volume	11L		30L	
	Load Per Rack	5kg			
	Shelf Number	1			
	Power Supply(50/60Hz)Current Rating	AC220V/1.3A	AC220V/2.7A	AC220V/4.5A	AC220V/6.8A
	Nw/GW (kg)	3.3/4	4.5/5	6/7	7.5/9

## Big Size Water Baths

### Characteristics:

- The enclosure of the product is formed and machined by using high-quality steel plate. Static electric spraying process is adopted on the surface, which is sturdy and durable. The inner container is finished by the stainless steel stretching.
- The liner and upper cover are made of high-quality stainless steel plate, featuring strong corrosion resistance.
- U-shaped heating pipe is adopted for direct heating in water. The temperature rise is quick and the thermal loss is small.
- Single-row digital display or intelligent temperature controller boasts simple operation and favorable application effect.



### Main Technical Parameters:

Model	DK-98-IVL
Supply voltage	220V/60HZ
Power(W)	2.4kw
Temp-motion(°C)	+0.5°C
Temp-range(°C)	RT+5 ~ 100°C
Senility of Temp Control(°C)	≤ ± 1
Display error(°C)	≤ ± 2.5
Chamber Size(mm)	620*500*200mm
Products Size(mm)	681*560*301mm
Packing Size(mm)	595*388*445mm
N.W.(Kg)	15KG
G.W.(Kg)	20KG

## Ultrasonic Cleaner Digital Model, With Timer And Heater

### Characteristics:

- 1. Use ordinary tap water, alcohol or solvent as cleaning;
- 2. High power transducer cleaning effect significantly, usable macroscopic observation;
- 3. After cleaning objects shine light;
- 4. Digital LCD control boot time;
- 5. The stainless steel shell, bladder and cover, more upscale;
- 6. Waterproof properties is greatly improved, more safety products last;
- 7. With constant temperature system with heating;
- 8. The stainless steel ultrasonic cleaning basket (optional).



### Main Technical Parameters:

Model	FSF-010S	FSF-020S	FSF-030S	FSF-031S	FSF-040S	FSF-060S	FSF-080S	FSF-100S
Frequency	40KHz							
Timer	0-30 min							
Heater	RT-80°C							
Transducer(PCS)	1	2	3	3	4	6	8	10
Capacity	2L	3.2L	4.5L	6.5L	10L	15L	22L	30L
Ultrasonic Power(W)	80	120	180	180	240	360	480	600
Heating Power	150W	150W	200W	200W	450W	450W	600W	600W
Tank size (L*W*H MM)	150*135*100	240*135*100	300*150*100	300*150*150	300*240*150	300*300*150	500*300*150	500*300*200
Unit Size (L*W*H MM)	175*160*210	265*165*220	325*180*220	325*180*280	325*265*280	360*325*285	530*325*285	530*325*325
Packing size (L*W*H MM)	260*260*290	340*245*310	410*255*310	410*255*355	435*360*350	460*410*340	635*405*340	635*405*390
G.W/N.W	2.4/2.9	3.6/4.3	4.6/5.5	5.4/6.3	7.3/8.4	9.1/10.3	12.6/14	14.4/16

## Ultrasonic Cleaner Digital Series, With timer

### Characteristics:

- 1. Use just tap water, or industrial alcohol and solvent cleaner for more higher cleaning requirement.
- 2. Digital timer, clear digital LCD display.
- 3. Power supply can be either AC 100 120V or AC 200 240V.
- 4. Industrial control chip microcontroller. flexible circuit boards control, more secure & stable.
- 5. Stainless steel made, resistance to wear.
- 6. Warranty time: 12 months.



### Main Technical Parameters:

Model	Frequency	Transducer (PCS)	Capacity	Ultrasonic Power(W)	Timer	Tank Size (L*W*H MM)	Unit Size (L*W*H MM)	G.W/N.W
FSF-008	42KHz	1	0.8	50	0-30 min	150*85*65	180*110*150	1.3/1

## Portable Pressure Steam Sterilizer

### Characteristics:

- 1.Fully stainless steel structure.
- 2.Double scale indication pressure gauge.
- 3.Electric heated.
- 4.Easy to operate, safe and reliable.

### Main Technical Parameters:

Model	Capacity	Working Pressure	Working Temperature	Max.Safety Pressure	Heat Average	Power	Packing Size	G.W/N.W
FSF-18LD	18L Φ280*260mm	0.14-0.16Mpa	126℃	0.165Mpa	≤ ± 0.1℃	2KW/ AC200V.50Hz	410*410*520mm	18kg/16kg
FSF-24LD	24L Φ280*390mm						410*410*630mm	19kg/17kg



## Portable Pressure Steam Sterilizer

( Electric or LPG heated )

### Characteristics:

- 1.Fully stainless steel structure.
- 2.Electric or LPG heated.
- 3.Double scale indication pressure gauge.
- 4.Easy to operate, safe and reliable.

### Main Technical Parameters:

Model	Capacity	Working Pressure	Working Temperature	Max.Safety Pressure	Power	Packing Size(mm)	G.W/N.W
FSF-18LM	18L	0.14-0.16Mpa	126℃	0.165Mpa	AC220V.50Hz/2Kw	410*410*430	16/14KG
FSF-24LM	24L					410*410*550	17/15KG



## Portable Pressure Steam Sterilizer

### Characteristics:

- 1.Fully stainless steel structure.
- 2.Hand wheel type of quick-open door structure.
- 3.Indicator light indicates working state.
- 4.Double scale indication pressure gauge.
- 5.Time scope:0-60min.
- 6.Automatically shut off with beep reminding after sterilization.
- 7.Electric heated.
- 8.Easy to operate, safe and reliable.

### Main Technical Parameters:

Model	Capacity	Working Pressure	Working Temperature	Temp. range	Max.Safety Pressure	Timer range	Heat average	Power	Packing Size(mm)	G.W/N.W
FSF-18LDJ	18L	0.14-0.16Mpa	126℃	126℃	0.165Mpa	0-60min	≤ ± 1℃	AC220V.50Hz/2Kw	410*410*430	16/14KG
FSF-24LDJ	24L								410*410*550	17/15KG



## Vertical Pressure Steam Sterilizer

### Characteristics:

- 1.Fully stainless steel structure.
- 2.Hand wheel type of quick-open door structure.
- 3.Door safety lock system.
- 4.Digital display of working status,touch of key.
- 5.Self-inflating type seal.
- 6.Over temperature&over pressure auto-protection.
- 7.Safe protection of water lacking.
- 8.Automatically shut off with beep reminding after sterilization.
- 9.Auto discharge the cool air,and steam discharging auto matically after sterilization.
- 10.Used for sterilization of medical instruments, medical cotton products.
- 11.Fully stainless steel SUS304/AISI 304 -3mm.
- 12.Possible to install drying system according request.

### Main Technical Parameters:

Model	FSF-35HD	FSF-50HD	FSF-75HD	FSF-100HD
Capacity	35L (Φ318*450)mm	50L (Φ340*550)mm	75L (Φ400*600)mm	100L (Φ440*650)mm
Working pressure	0.22Mpa			
Working temperature	134℃			
Max.working pressure	0.23Mpa			
Heat average	≤ ± 1℃			
Timer	0-99min or 0-99hour59 min			
Temp.range	105℃~134℃			
Power	2.5KW/AC220V.50Hz	3KW/AC220V.50Hz	4.5KW/AC220V.50Hz	
Exterior size	450*450*1010mm	510*470*1130mm	560*560*1120mm	540*560*1250mm
Packing size	570*550*1150mm	590*590*1280mm	650*630*1280mm	680*630*1370mm
G.W/N.W	72kg/56kg	88kg/68kg	100kg/80kg	110kg/85kg



FSF-35HD/50HD/75HD/100HD

## Stainless Steel Water Distiller [Automatic Control Type]

○ This product uses tap water as the source water and uses electric heating distillation method to produce distilled water, which is suitable for medical treatment, chemical industry, scientific research, laboratories and etc.

### Characteristics:

- The whole shell is designed in stainless steel, and the evaporation tank, condenser and heater are all made of stainless steel, which are resistant to corrosion and aging.
- With water shortage protection function, when the liquid level is too low, it will automatically alarm and quickly cut off the heating, to ensure that the heater will not burn out, it is easy to operate, safe and reliable.
- Automatic water replenishment function, when the cooling water is restored to supply water, it will automatically enter the evaporation bucket, to ensure that the float switch automatically controls the power supply, and automatically restore the output of distilled water.



DZ

### Main Technical Parameters:

Model	Voltage(V)	Output(L/H)	Heating Power(kw)	G.W(kg)	N.W.(kg)	Exterior Size (DiaxH) mm	Packing Size (LxWxH) mm
DZ-5LIII	220	≥ 5	4.5	9.5	6	φ 305 × 730	380 × 350 × 870
DZ-10LIII	380	≥ 10	7.5	10.5	7.5	φ 335 × 830	390 × 350 × 900
DZ-20LIII	380	≥ 20	15	13.5	11	φ 405 × 980	410 × 410 × 1055

## FSF-300 Basic Power Supply

### Characteristics:

- Molding shell, touch keys, microprocessor intelligent control.
- With automatic memory function.
- With standard, timing operation function.
- Automatic detection of no-load, over-load.



### Specifications:

Type of Output	Output range	Increment	Timer Range	Display	Output jacks
Constant-Voltage, Current	5~300V, 1~300mA, Maximum 90W	1V, 1mA	1min~9hr, 59min	LED	Two sets of output jacks

## FSF-600 Basic Power Supply

### Characteristics:

- Molding shell, touch keys, microprocessor intelligent control.
- With automatic memory function.
- With standard, timing operation function.
- Automatic detection of no-load, over-load.



### Specifications:

Type of Output	Output range	Increment	Timer Range	Display	Output jacks
Constant-Voltage, Current	5~300V, 1~300mA, Maximum 90W	1V, 1mA	1min~9hr, 59min	LED	Two sets of output jacks

## FSF-300C Universal Power Supply

### Characteristics:

- Molding shell, touch keys, microprocessor intelligent control.
- With automatic memory function.
- With standard, timing operation function.
- Automatic detection of no-load, over-load.



### Specifications:

Type of Output	Output range	Increment	Timer Range	Display	Output jacks
Constant-Voltage, Current or Power	5~300V, 1~400mA 1~120W	1V, 1mA	1min~99hr, 59min	LCD display with backlight	Four sets of output jacks

## FSF-600C Universal Power Supply

### Characteristics:

- Molding shell, touch keys, dual core microprocessor intelligent control
- It can store 10 electrophoresis methods; With automatic memory function.
- With constant voltage, constant current, constant power, misoperation, fault intelligent prompt functions.
- Automatic detection of no-load, over-load, short circuit, rapid resistance change, ground leak and system overheating.



### Specifications:

Type of Output	Output range	Increment	Timer Range	Display	Output jacks
Constant-Voltage, Current or Power	10~600V, 1~500mA 1~300W	1V, 1mA	1min~99hr, 59min	LCD display with backlight	Four sets of output jacks

## FSF-SPAT Horizontal Electrophoresis Cell

### Characteristics:

- Abundant buffer not only guarantees cooling effect, but also keeps the pH Value stable during the whole experiment process.
- Unfolded electrodes make repair and replacement easy and quick.
- With the sample background color design on the tray, convenient to adding the sample.
- Safety cover open button design, convenient opening the cover.
- The transparent top lid effectively prevents liquid in the cell from volatilizing and avoids electricity leakage.
- Auto-switch-off when the lid is removed.



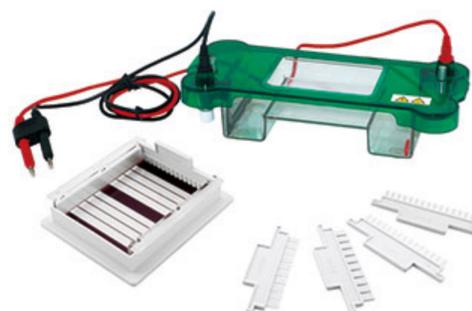
### Specifications:

Gel Size (W*L)	Sample volume	Buffer Volume	Dimension(L*W*H)	Net weight
48*75mm	3,5,9,1	~150ml	250*90*50(mm)	0.4kg

## FSF-SPBT Horizontal Electrophoresis

### Characteristics:

- Abundant buffer not only guarantees cooling effect, but also keeps the pH Value stable during the whole experiment process.
- Unfolded electrodes make repair and replacement easy and quick.
- With the sample background color design on the tray, convenient to adding the sample.
- The transparent top lid effectively prevents liquid in the cell from volatilizing and avoids electricity leakage.
- Auto-switch-off when the lid is removed.



### Specifications:

Gel Size (W*L)	Sample volume	Buffer Volume	Dimension(L*W*H)	Net weight
78*100mm	10,15	~400ml	365*105*55(mm)	0.6kg

## Mini-Protean Vertical Electrophoresis Cell FSF-SC22+

### Characteristics:

- The installation of the glass plate in just 15 seconds, and does not need the knob, fast and convenient.
- With a gel casting in original position, no need to move glasses from gel making to electrophoresis running. It is more convenient to observe gel preparing through both sides of the glasses.
- High transparent polycarbonate material injection molding, impact resistance, high temperature resistance, corrosion resistance.
- Safety cover open button design, convenient opening the cover.
- With the background color, easy to be observed in the sample adding and electrophoresis process.
- Abundant buffer not only guarantees cooling effects, but also keeps the pH Value stable during the whole experiment process.
- Auto-switch-off when the lid is removed.



### Specifications:

Glass plate size ( W x L )	Gel Size ( W x L )	Gel thickness	Gel amount	Sample volume	Buffer Volume	Dimension ( L x W x H )	Net weight
100 x 100 mm	82 x 88 mm	0.75、1.0、1.5 ( mm )	1 ~ 2 ( pieces )	( 0.75mm ) 11、15 wells; ( 1.0mm ) 11、15wells; ( 1.5mm ) 11、15wells	~ 750 ( ml )	150 x 120 x 115 ( mm )	1.5 ( kg )

## Mini-Protean Electrophoresis Cell FSF-SC24+

### Characteristics:

- The installation of the glass plate in just 15 seconds, and does not need the knob, fast and convenient.
- With the gel making device of normal position, don't should to moving the glass plate from the process of making gel to electrophoresis, convenient for observation the gel preparation from the glass on both sides, ensures fast set up times and leak-free operation.
- Safety cover open button design, convenient opening the cover;
- With the background color, easy to be observed in the sample adding and electrophoresis process;
- Abundant buffer not only guarantees cooling effects, but also keeps the pH Value stable during the whole experiment process.
- Auto-switch-off when the lid is removed.



### Specifications:

Glass plate size ( W x L )	Gel Size ( W x L )	Gel thickness	Gel amount	Sample volume	Buffer Volume	Dimension ( L x W x H )	Net weight
100 x 100 mm	82 x 88 mm	1.0、1.5 ( mm )	1 ~ 4 ( pieces )	( 1.0mm ) 11、15wells; ( 1.5mm ) 11、15wells	~ 1000 ( ml )	220 x 170 x 120 ( mm )	2.5 ( kg )

## Digital Centrifuge FLC-04R-C

### Characteristics:

- 1.Fixed angle rotor with capacity for 6 tubes of 15 mL (dimensions 16x100 mm)
- 2. Transparent polycarbonate lid for visualization and control of rotor.
- 3. LED display for adjustment and visualization of operation time and speed.
- 4. Safety switch that avoids centrifugation if the lid is open and that automatically stops operation in case of opening the lid.
- 5. Elastic suspension motor to assure a soft operation.
- 6. Sucker feet for a good fixation to the working surface.



### Main Technical Parameters:

Model	FLC-04R-C
Control	Digital
Rotor	Fixed-angle
Speed	1000-4000 rpm (steps of 500 rpm)
Time	1-59 min (steps of 1 min)
Capacity	6x15 ml
Max. RCF	1790 g
Consumption	80 W
Power	220 V - 50 Hz

## Digital Tabletop Low Speed Centrifuge

### Characteristics:

- 1.DC brushless motor drive, digital display speed and running time
- 2.Mechanical door lock
- 3.Used for fat graft purification, PRP and other cosmetic surgery fields.



### Main Technical Parameters:

Model	FTD-4C
Maximum speed	4000r/min
Maximum RCF	2350 × g
Max volume	12 × 15ml
Power supply	AC 220V 50HZ
Timer	1 ~ 99min
Noise	≤55dBA
Exterior Size (mm)	270 × 290 × 230
Packing Size (mm)	350x340x360
N.W / G/W (KG)	8 / 9



## CORPORATE CULTURE

Company Philosophy

Innovativeness development is of overriding

Entrepreneurship

Practice of scientific management courage to dare to offer bold and innovative

Concentrate on doing business focus on development

Cultural ideas

Heavy responsibilities visionary strategist