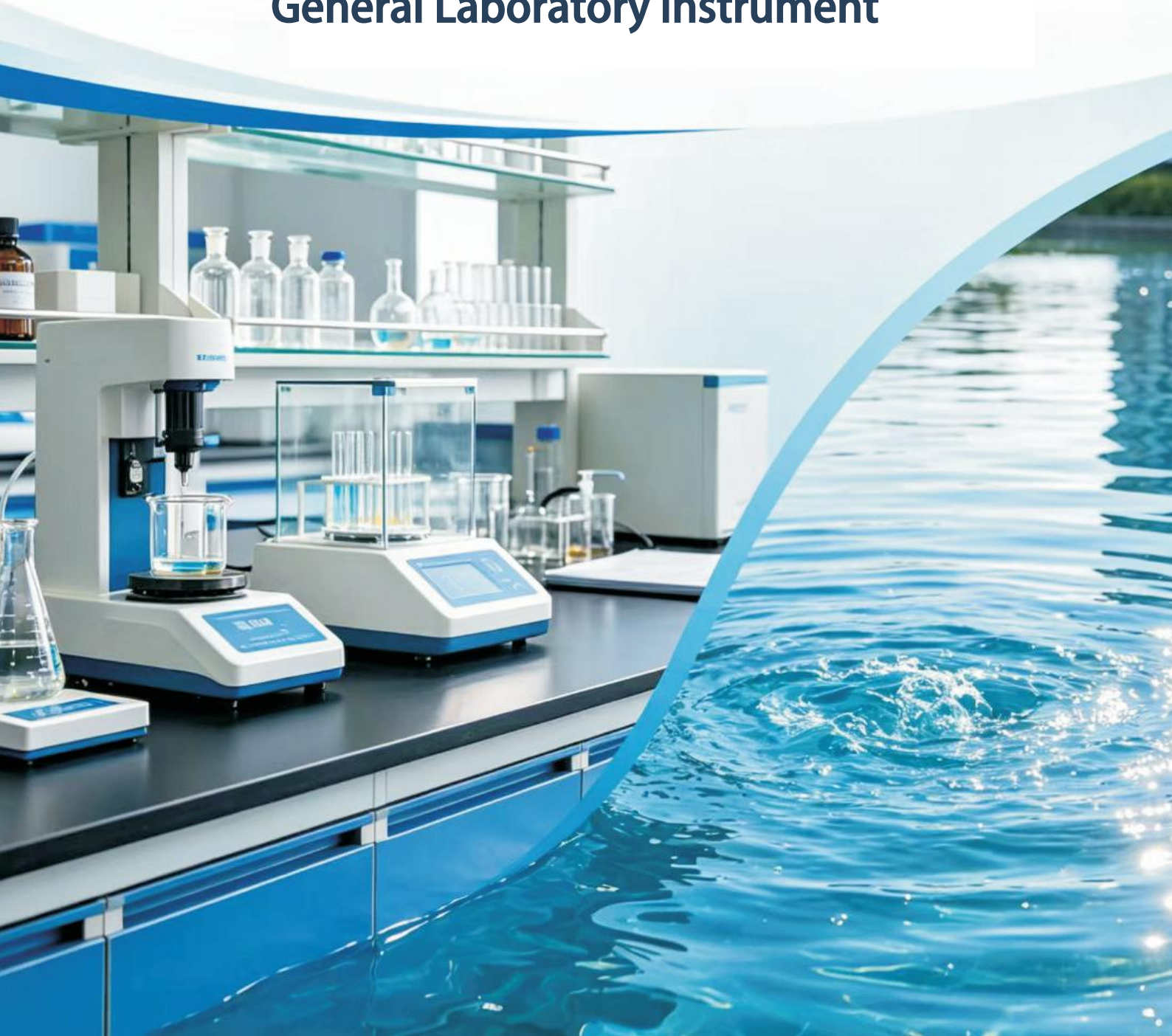




**HANGZHOU QIWEI INSTRUMENT CO., LTD.**

COMPANY BROCHURE

**General Laboratory Instrument**





## About Us

Hangzhou Qiwei Instrument Co., Ltd. was founded in 2008 and is located in Hangzhou Biomedical Industrial Park, Linping District, Hangzhou City, with a factory area of 4,000 square meters. It is a technology-based enterprise specializing in the research and development, design, production, sales and service of water quality analysis instruments, optical detection instruments, general mechanical and electrical instruments and electrochemical sensors.

The company is constantly committed to the research and development, innovation and upgrading of general instruments, and has been persistently following its own path. Since its establishment, the company has independently developed more than 500 products and has been hailed by customers as the "home of General Instruments".

We take "creating value for customers and promoting social development" as our mission, and the company will pursue "brand, quality and service". With the tenet of "pioneering, innovating, being honest and developing", we are committed to becoming a leading domestic manufacturer and service provider of scientific instruments.



## HONOR

The company holds over 50 property rights patents, including invention patents, utility model patents, design patents, and software Copyrights. It has been honored with titles such as Provincial Technology-based Small and Medium-sized Enterprise, Hangzhou High-tech Enterprise, and National High-tech Enterprise.





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## Shaker

### Introduction

This product is suitable for mixing small volumes of reagents and cell culture. It can be widely used in various biological and chemical reactions, cell culture, fermentation, hybridization, enzyme and cell tissue research (such as fixation of electrophoretic gels, Masson blue staining, decolorization, fixation of silver nitrate staining, staining, and development), as well as the cultivation of various bacteria, stain washing, and general mixing, etc., in a wide range of applications.

This product has two main features. Firstly, it has a sleek and compact design with a speed adjustment function. When it is the ST type digital timing model, you can set the working time and the speed is directly displayed. The instrument is easy to operate and has a quick response. Secondly, it uses a DC motor, which starts smoothly and has low noise.



QW-QB-23  
QW-QB-30  
QW-QB-23C  
QW-QB-30C



QW-QB-23ST  
QW-QB-30ST  
QW-QB-23STC  
QW-QB-30STC

Technical Parameter								
Model	QW-QB-23	QW-QB-23ST	QW-QB-30	QW-QB-30ST	QW-QB-23C	QW-QB-23STC	QW-QB-30C	QW-YZ-30STC
Operation Mode	up-down shaking motion							
Timing Range	No	1~999min	No	1~999min	No	1~999min	No	1~999min
Speed Range	50~210rpm							
Input Voltage	Plug-in Use: AC 110-230V				AC 110-230V, Built-in rechargeable battery			
Displayer	No	LCD displayer	No	LCD displayer	No	LCD displayer	No	LCD displayer
Load Capacity	≤5kg		≤8kg		≤5kg		≤8kg	
Tray Size	240×230mm		300×265mm		240×230mm		300×265mm	
Size	240×285×115mm		300×340×115mm		240×285×115mm		300×340×115mm	
Weight	4kg		5kg		4kg		5kg	



QW-YZ-23  
QW-YZ-30  
QW-YZ-23C  
QW-YZ-30C



QW-YZ-23ST  
QW-YZ-30ST  
QW-YZ-23STC  
QW-YZ-30STC

**Technical Parameter**

Model	QW-YZ-23	QW-YZ-23ST	QW-YZ-30	QW-YZ-30ST	QW-YZ-23C	QW-YZ-23STC	QW-YZ-30C	QW-YZ-30STC
Operation Mode	horizontal orbital motion							
Timing Range	No	1~999min	No	1~999min	No	1~999min	No	1~999min
Speed Range	50~210rpm							
Input Voltage	Plug-in Use: AC 110-230V				AC 110-230V, Built-in rechargeable battery			
Displayer	No	LCD displayer	No	LCD displayer	No	LCD displayer	No	LCD displayer
Load Capacity	≤5kg		≤8kg		≤5kg		≤8kg	
Tray Size	240×230mm		300×265mm		240×230mm		300×265mm	
Size	240×285×115mm		300×340×115mm		240×285×115mm		300×340×115mm	
Weight	4kg		5kg		4kg		5kg	



QW-WF-23  
QW-WF-30  
QW-WF-23C  
QW-WF-30C



QW-WF-30ST  
QW-WF-30STC      QW-WF-30ST  
QW-WF-30STC      QW-WF-23ST  
QW-WF-23STC

**Technical Parameter**

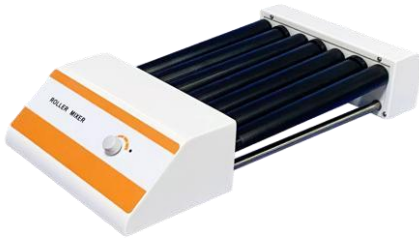
Model	QW-WF-23	QW-WF-23ST	QW-WF-30	QW-WF-30ST	QW-WF-23C	QW-WF-23STC	QW-WF-30C	QW-WF-30STC
Operation Mode	left-right reciprocating							
Timing Range	50~210rpm							
Speed Range	No	1~999min	No	1~999min	No	1~999min	No	1~999min
Displayer	No	LCD displayer	No	LCD displayer	No	LCD displayer	No	LCD displayer
Input Voltage	Plug-in Use: AC 110-230V				AC 110-230V, Built-in rechargeable battery			
Tray Size	240×225mm		290×255mm		240×225mm		290×255mm	
Size	250×285×145mm		305×340×150mm		250×285×145mm		305×340×150mm	
Weight	3.2kg		5.2kg		3.2kg		5.3kg	



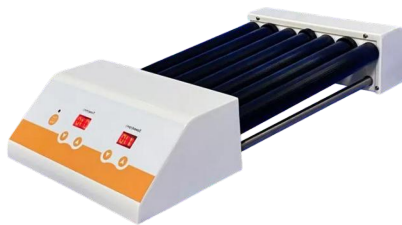
## Roller Multi-Tank Mixer

### Introduction

QW-GZ-7



QW-GZ-7T



The roller mixer adopts DC motor and microcomputer control technology. It is easy to operate and can perform rolling and swinging to mix various commonly used test tubes. The roller mixer is suitable for mixing blood, viscous liquids and liquid-solid suspensions. It is suitable for preventing blood coagulation. Blood samples can be mixed without adding anticoagulants, and it will not damage blood cells. It is widely used in preventing blood coagulation, immune precipitation and other fields.

The product has four main features. Firstly, it can simultaneously achieve rolling and swinging actions, which is suitable for blood samples, viscous substances and liquid-solid suspensions. Secondly, it uses an efficient DC speed reducer motor for driving, which runs smoothly, has low noise and has a long service life. Thirdly, it has a five/seven roller design, which is compact in structure and occupies less space, and is suitable for various places. Finally, the reasonable roller spacing design is suitable for samples of various specifications.

Model	QW-GZ-5	QW-GZ-7	QW-GZ-5T	QW-GZ-7T
Rotation Speed	20 - 110 rpm			
Time Setting	No		1 - 999 minutes	
Amplitude	22 ± 1mm			
Number of Rollers	5	7	5	7
Roller Length	280mm			
Maximum Load Capacity	4kg			
Input Power	15W			
Power Supply	AC 110-230V			
Fuse	250V / 3 A / Φ5 ×20			
Size	510×250×100mm			
Weight	3.7kg	3.8kg	3.7kg	3.8kg



## Multi-Tube Vortex Mixer



### Introduction

The multi-tube vortex mixer is a laboratory instrument that ingeniously combines oscillation and vortexing. It is suitable for various sample vortexing operations, making the experiments more convenient and efficient.

It can be equipped with multiple accessories and has three operation modes: point operation, continuous operation, and timing operation, which can meet the needs of vortex mixing for different-sized test tubes.

Technical Parameter	
Model	DXW-2500
Speed Range	500 - 2500 rpm
Timing Range	1 - 9999 minutes
Power Supply	AC 110-230V
Size	240×420×430mm
Weight	15kg



Specification Of Test Tube Rack						
Diameter	10mm	12mm	15mm	20mm	25mm	29mm
Material	Sponge					
Module Holes	50				15	
Module Size	245×132×45mm					



## Digital Electric Heating Water Bath



### Introduction

Digital electric heating water baths are widely used in drying, concentration, distillation and impregnation of chemical reagents, as well as impregnation of pharmaceuticals and biological products. They can also be used for other temperature tests, serving as essential equipment in biological, genetic, viral, aquatic, environmental protection, medical, health, biochemical laboratories, analytical laboratories, and educational and scientific research institutions.

### Feature

1. Stylish design and attractive appearance;
2. Thermal protection technology to prevent dry burning;
3. High thermal efficiency and fast heating;
4. Magnetic stirring for more uniform water temperature;
5. Timer setting for high efficiency, energy saving and safety;
6. The 304 stainless steel inner liner meets your different usage needs.

Technical Parameter				
Model	QW-FAD-WB	QW-FAD-WBC	QW-FAD-WBT	QW-FAD-WBTC
Timing Range	None		0-9999min	
Magnetic Stirring	None	have	None	have
Thermal Protection Function	have			
Temperature Control Range	Room temperature +8–90°C			
Display Resolution	0.1°C			
Display Mode	LCD backlight display			
Display Content	Actual temperature/Set temperature		Actual temperature/Set temperature/Set time	
Power Supply	AC 110-230V			
Volume	about 2.4L			
Power	500W			
Instrument Dimensions	Internal tank dimensions: $\phi$ 170×115mm Overall dimensions: 240×200×190mm			
Net Weight	about 1.2kg			
Packaging Size	Carton packaging: 280×260×225mm gross weight : about 1.8kg			



## Digital Heating Water Bath



HH-11-A  
HH-11F-A  
HH-11C-A  
HH-11FC-A



HH-12-A  
HH-12F-A  
HH-12C-A  
HH-12FC-A

### Introduction

This product is sink-type, with its inner tank and cover plate made of stainless steel; the plastic gasket can be adjusted in aperture size according to actual usage. The exterior is constructed from high-quality cold-rolled steel plate with plastic spraying. It is equipped with a PID control system and a precision temperature sensor. The actual and set temperatures inside the tank are directly displayed digitally. The product features an attractive appearance, corrosion resistance, stable temperature control, energy efficiency, practicality, and long service life.

Technical Parameter				
Specifications	Economy version	Anti-dry burning function	Magnetic stirring function	Dry burning prevention and magnetic stirring function
Model	HH-11-A	HH-11F-A	HH-11C-A	HH-11FC-A
Temperature Range	Room temperature +5-99.9°C			
Display Resolution	0.1°C			
Display Mode	LCD backlight display			
Display Content	Actual temperature / Set temperature			
Power Supply	AC 110-230V			
Volume	3L			
Power	300W			
Weight	3 kg			
Size	Internal tank dimensions: 160×160×130mm Overall dimensions: 200×200×213mm			

Technical Parameter				
Specifications	Economy version	Anti-dry burning function	Magnetic stirring function	Dry burning prevention and magnetic stirring function
Model	HH-12-A	HH-12F-A	HH-12C-A	HH-12FC-A
Temperature Range	Room temperature +5-99.9°C			
Display Resolution	0.1°C			
Display Mode	LCD backlight display			
Display Content	Actual temperature / Set temperature			
Power Supply	AC 110-230V			
Volume	6L			
Power	600W			
Weight	5kg			
Size	Internal tank dimensions: 300×160×130mm Overall dimensions: 345×200×213mm			



## Multi-Hole Water Bath

HH-24A  
HH-24F-A



HH-26A  
HH-26F-A



HH-28A  
HH-28F-A



### Introduction

This product is sink-type, with its inner tank and cover made of stainless steel; the plastic gasket can be adjusted in aperture size according to actual usage. The exterior is constructed from high-quality cold-rolled steel plate with plastic spraying.

It is equipped with a PID control system and a precision temperature sensor. The actual and set temperatures inside the tank are directly displayed digitally. The product features an attractive appearance, corrosion resistance, stable temperature control, energy efficiency, practicality, and long service life.

Technical Parameter						
Specifications	Economy version			Anti-dry burning function		
Model	HH-24-A	HH-26-A	HH-28-A	HH-24F-A	HH-26F-A	HH-28F-A
Temperature Range	Room temperature +5 ~ 99.9°C					
Display Resolution	0.1°C					
Display Mode	LCD backlight display					
Display Content	Actual temperature / Set temperature					
Power Supply	AC 110-230V					
Volume	12L	18.5L	22L	12L	18.5L	22L
Power	800W	1600W	1200W	800W	1600W	1200W
Weight	5kg	7kg	10kg	5kg	7kg	10kg
Internal tank dimensions	305×305×130mm	468×305×130mm	605×300×120mm	305×305×130mm	468×305×130mm	605×300×120mm
Overall dimensions	345×345×190mm	510×345×196mm	680×375×220mm	345×345×190mm	510×345×196mm	680×375×220mm
Hole Count	4	6	8	4	6	8



## Super Heating Water Bath



### Usage Note

1. Before use, add water first. Do not dry-burn. Fill the water level line and then turn on the power.
2. The water level must not be too high to prevent water from overflowing.
3. The power supply must have a proper grounding device.
4. When the instrument is in operation, it should be placed in a well-ventilated and dry area, with a distance of 30mm from any obstacles on the back and both sides.
5. After use, turn off the machine and unplug the power cord. Drain the water completely, wipe it dry with a dry cloth, and then place it in a well-ventilated and dry area.

Technical Parameter				
Model	HS-501A	HS-601A	HS-501B	HS-601B
Heating Power	1000W			
Temperature Control Range	Ambient +8~99.9°C			
Temperature Fluctuation	≤±0.2°C	≤±0.2°C	≤±0.05°C	≤±0.05°C
Temperature Ffluctuation	0.1°C		0.01°C	
Tank Volume	15L	20L	15L	20L
Working Tank Size	310×280×180mm	400×280×180mm	310×80×180mm	400×280×180mm
Tank Depth	180mm			
Flow Rate	3L/min			
Circulation System	Internal/External Circulation			



## Low-temperature Heating Water Bath



### Introduction

Low-temperature heating water baths are widely used in research institutions, universities, enterprise quality inspection and production departments in fields such as petroleum, chemical engineering, electronic instruments, physics, chemistry, bioengineering, medical and health care, life sciences, light industry and food, physical property testing and chemical analysis. They provide users with a thermostatically controlled field source with uniform and stable temperature during operation, for conducting constant temperature experiments or tests on test samples or manufactured products. They can also serve as heat or cold sources for direct or auxiliary heating and cooling.

### Model Description

DHC-05-A/B (Low Temperature Constant Temperature 0 ℃)

DHC-0505-A/B (Low Temperature Constant Temperature -5 ℃)

DHC-1005-A/B (Low Temperature Constant Temperature -10 ℃)

DHC-1505-A/B (Low Temperature Constant Temperature -15 ℃)

**Capacity:** 5L / 10L / 15L / 20L / 30L optional

Technical Parameter						
Model	DHC-05-A	DHC-0505-A	DHC-1005-A	DHC-1505-A	DHC-2005-A	DHC-3005-A
Temperature Range	0 ~ 99.9℃	-5 ~ 99.9℃	-10 ~ 99.9℃	-15 ~ 99.9℃	-20 ~ 99.9℃	-30 ~ 99.9℃
Resolution	0.1℃					
Temperatur Stability	±0.2℃					
Bath Volume	5/6L					
Bath Opening	150×150mm					
Flow Rate	3L/min					
Bath Depth	120mm					
Volume	5L					
Model	DHC-05-B	DHC-0505-B	DHC-1005-B	DHC-1505-B	DHC-2005-B	DHC-3005-B
Temperature Range	0 ~ 99.9℃	-5 ~ 99.9℃	-10 ~ 99.9℃	-15 ~ 99.9℃	-20 ~ 99.9℃	-30 ~ 99.9℃
Resolution	0.01℃					
Temperatur Stability	±0.05℃					
Bath Volume	5/6L					
Bath Opening	150×150mm					
Flow Rate	3L/min					
Bath Depth	120mm					
Volume	5L					



## Low-temperature Heating Bath



### Introduction

Low-temperature heating baths are essential and commonly used equipment in laboratories. They are widely applied in research institutions, universities, factory laboratories, and metrology, quality inspection departments in fields such as petroleum, chemical engineering, metallurgy, medicine, biochemistry, physical property testing, and chemical analysis, providing users with a place with controlled cooling and heating and uniform, constant temperature during work.

### Feature

1.Refrigeration system: Adopts a low-noise air-cooled hermetic compressor, which offers advantages such as fast cooling speed and strong temperature stability.

2.Control system: Proprietary temperature control technology independently developed and produced by our company using self-developed software.

3.Circulation system: During internal circulation, it can evenly and stably maintain the temperature of the liquid in the tank.

4.If you have any other requirements, we support customization.

Technical Parameter		
Model	QW-D(A)-70	QW-D(A)-145
Temperature Range	15~60℃	
Resolution	0.1℃	
Temperature Fluctuation	±5℃	
Internal Volume	70L	145L
Slot OpeningSize	400×400mm	495×495mm
Circulation	internal circulation	
Groove Depth	350mm	450mm
Internal Size	400×495×350mm	495×595×450mm
Power	7KW	
Power Supply	AC 110-230V	
External Dimensions	800×550×1120mm	900×610×1220mm



## Mini Dry Bath



### Introduction

The Mini Dry Bath is also known as a dry thermostat, dry bath, or dry heater. The metal bath is a Dry bath product manufactured with microcomputer PID control and semiconductor refrigeration technology.

The instrument can be equipped with various modules and is widely used in sample preservation, preservation and reaction of various enzymes, denaturation treatment of nucleic acids and proteins, PCR reactions, pre-denaturation for electrophoresis and serum coagulation, etc.

Technical Parameter			
Model	M-JSY-HL	M-JSY-H	M-JSY-HF
Cooling Method	Heating + Refrigeration Dual Function	Natural Cooling	Rapid Air Cooling
Temperature Control Range	10~100°C (Lower temperatures available for non-standard customization)	RT+5~100°C	
Time Setting Range	1min-99h59min		
Temperature Fluctuation	≤±0.5°C		
Module Temperature Uniformity	≤±0.5°C		
Temperature Control Accuracy	≤±0.3°C		
Temperature Display Accuracy	±0.1°C		
Temperature Offset Correction	Equipped with temperature offset correction		
PID Multi-stage Program Control	Multi-segment programmable PID temperature control, supports up to 5 temperature points with configurable temperature and holding time for continuous operation		
Maximum Power	60W	30W	
Power Supply	24V/5A	12V/5A	
Overall Dimensions	110×170×140mm		
Net Weight	1.8kg	1.2kg	
Module Quantity	1 pc		



## New Rechargeable Colony Counter



### Introduction

A colony counter is a semi-automatic bacterial inspection instrument with a digital display. It consists of components such as the counter, a probe pen, and a counting chamber. The counter is designed and manufactured using CMOS integrated circuits. Inside the counting chamber with a deep black background, energy-saving ring lamps are used for side illumination, providing clear contrast against bacterial colonies. In accordance with the specifications for bacterial counting procedures, the instrument display is designed to show three digits. When the number of bacterial colonies growing in a single Petri dish exceeds 999, the test sample shall be diluted and retested to ensure counting accuracy. This instrument can reduce the labor intensity of laboratory personnel, improve work efficiency and work quality.

The product is widely used for bacterial count inspection in food, beverages, pharmaceuticals, biological products, sanitary products, drinking water, industrial wastewater, and clinical specimens. It is an essential instrument for laboratories at various levels including health and epidemic prevention stations, environmental monitoring stations, food hygiene supervision and inspection institutes, hospitals, biological product institutes, pharmaceutical inspection institutes, food factories, daily chemical factories, as well as colleges, universities and research institutions.

Technical Parameter				
Model	JL-1	JL-1C	JLY-2	JLY-2C
Counter Capacity	0-999			
LED Light Source Power	7W			
Magnifying Glass Magnification	5-10X			
Charging Function	No	Yes	No	Yes
Charging Standby Time	None	30 Days	None	30 Days
Voice Counting	No		Yes	
Power Supply	DC12V			
Counting Pool Size	φ110mm			
Colony Pen	2 Pcs			
Size	230×230×90mm			
Weight	2kg			

## Mini Digital Magnetic Stirrer



### Introduction

The mini digital magnetic stirrer is a laboratory instrument used for liquid mixing. It is mainly used to stir liquids with low viscosity or solid-liquid mixtures. Its basic principle is to utilize the principle of like poles repelling and opposite poles attracting of magnetic fields.

By using the magnetic field to drive the magnetic stirrer placed in the container to rotate in a circular motion, it achieves the purpose of stirring the liquid. This instrument is small in size, easy to use, and is an ideal stirring tool for laboratories in enterprises and institutions such as petrochemicals, medicine and health, environmental protection, biochemical analysis, education and research.

Technical Parameter						
Model	M-CL	M-SCL	MC-CL	MC-SCL	M-SCL-T	MC-SCL-T
Timing Function	No	No	No	No	0-9999 minutes	
Charging Function	No	No	Yes	Yes	No	Yes
Speed Range	0-1800 rpm					
Mixing Capacity	10-2000 ml					
Workbench Size	130×130 mm					
Power	5W					
Power Supply	12V					
Size	150×200×55 mm					
Weight	0.8 kg					

## Magnetic Stirrer

CL-R



SCL-R  
SCL-RT



### Introduction

A magnetic stirrer is a laboratory instrument used for liquid mixing. It is mainly used to stir liquids with low viscosity or solid-liquid mixtures. The basic principle is to utilize the principle of like poles repelling and opposite poles attracting in a magnetic field.

The magnetic stirrer is driven by the magnetic field to make the magnetic stirring elements placed in the container rotate in a circular motion, thereby achieving the purpose of stirring the liquid.

Technical Parameter			
Model	CL-R	SCL-R	SCL-RT
Timing Function	No	No	Yes
Speed	0 - 1600 rpm		
Mixing Capacity	10 - 1000 ml		
Power Supply	AC 110-230V		
Power	20W		
Size	270×280×60 mm		
Weight	600g	1 kg	1kg



## Digital Heating Magnetic Stirrer



### Introduction

Magnetic stirrers are laboratory instruments used for liquid mixing, mainly employed to stir low-viscosity liquids or solid-liquid mixtures. Their basic working principle utilizes the law that like magnetic poles repel and opposite magnetic poles attract.

A magnetic stirrer uses a magnetic field to drive a magnetic stirring bar placed in a container to rotate circularly, thereby achieving the purpose of stirring the liquid.

Technical Parameter		
Model	SCL-RC+	SCL-RTC+
Timing Function	No	Yes
Speed Range	0–1600 rpm	
Stirring Volume	10–1000 mL	
Environmental Temperature	0–60 °C	
Environmental Humidity	80%	
Power Supply	AC 110-230V	
Heating Power	300 W	
Working Plate Size	150×150 mm	
Size	270×280×60 mm	
Weight	2.5 kg	



## High-Power Magnetic Stirrer

### Introduction

The magnetic stirrer is a laboratory instrument used for liquid mixing. It is mainly used to stir liquids with low viscosity or solid-liquid mixtures. Its basic principle is to utilize the principle of like poles repelling and opposite poles attracting in a magnetic field.

The magnetic stirrer uses the magnetic field to drive the magnetic stirrer placed in the container to rotate in a circular motion, thereby achieving the purpose of stirring the liquid.

This instrument is easy to use and is an ideal stirring tool for laboratories in enterprises and institutions such as petrochemicals, medicine and health, environmental protection, biochemical analysis, education and research.



Product Model	QW-DC-24ST	QW-DC-29ST	QW-DC-40ST	QW-DC-6045ST
Product Features	Benchtop	Benchtop	Benchtop	Cart-Type
Speed Range	200 - 1300 rpm		200 - 1100 rpm	
Timing Range	0 - 9999 min			
Workbench Size	240×240 mm	290×290 mm	400×400 mm	600×455 mm
Mixing Capacity	1 - 20 L (water)	1 - 20 L (water)	50 - 100 L (water)	50 - 100 L (water)
Workbench Material	304 stainless steel			
Power Supply	AC 110-230V			
Size	240×322×90 mm	290×370× 95 mm	500×400×190 mm	600×455×240 mm
Instrument Weight	4.0 kg	6.0 kg	11.6 kg	31.2 kg

QW-DC-40ST



QW-DC-6045ST





## Brushless Mixer



QW-WS60-SH  
QW-WS100-SH  
QW-WS200-SH



QW-WS60-ST  
QW-WS100-ST  
QW-WS200-ST

### Introduction

The dispersion mixer is a newly developed medium and low-speed mixer for laboratories by our company. This mixer retains most of the functions of the original JB series mixers, but its design is more concise, beautiful, compact and exquisite. Realize the work requirements of laboratory personnel with a user-friendly operation interface.

This product features high output power, low noise, reliable operation, smooth speed regulation and convenient use. It is suitable for use by scientific research and production enterprises in heavy industry, light industry, chemical industry, pharmaceuticals, science and education, etc.

This equipment adopts an electronic constant force speed regulation circuit, with the rotational speed directly displayed in digital form. It is also equipped with a stainless steel stirring rod and cross-shaped dispersing blades, which can meet the different experimental requirements of the laboratory.

### Technical Parameter

Model	QW-WS60-SH	QW-WS100-SH	QW-WS200-SH	QW-WS60-ST	QW-WS100-ST	QW-WS200-ST
Motor Power	60w	100W	200W	60w	100W	200W
Timing Function	No			0-9999min		
Speed Range	100-1600rpm					
Power Supply	AC 110-230V					
Drill Chuck' Diameter	0.5-10mm					
Stirring Rod	φ7×250mm (stainless steel cross stirring paddle)					
Speed Display	LCD display, digital speed regulation					
Size	200×280×660mm					
Weight	9kg					



## Laboratory Mixer



### Introduction

The JB-SH/JB-ST series laboratory digital constant-speed mixer is a medium and low-speed mixer for laboratories. This mixer retains most of the functions of the original JB series mixer and is designed to be more concise, beautiful, compact and exquisite. Realize the work requirements of laboratory personnel with a user-friendly operation interface.

The mechanical part of this motor is composed of series-excited motors and is equipped with a microcomputer-based digital display timing (optional) control instrument, which makes this product feature high output power, low noise, reliable operation, smooth speed regulation and convenient use. It is suitable for use by scientific research and production enterprises in heavy industry, light industry, chemical industry, pharmaceuticals, scientific instruments and other fields.

Model	JB60-SH	JB100-SH	JB200-SH	JB60-ST	JB100-ST	JB200-ST
Motor Power	60W	100w	200w	60w	100w	200w
Timing Function	None			0-999min		
Range Of Speed	100-1500rpm					
Power Supply	AC 110-230V					
Drill Chuck's Diameter	0.5-10mm					
Stirring Rod	φ5×250mm (Stainless steel cross-shaped stirring paddle)					
Speed Display	LED display, digital speed regulation					
Size	200×280×660mm					
Weight	8kg					





## Bracket Homogenizer



Technical Parameter				
Model	JZ-10C	JZ-10	JZ-12	JZ-18
Power Supply	AC 110-230V			
Input Power	180W		280W	
Speed Range	8000~30000rpm			
Speed Regulation	4-speed speed regulation	6-gear stepless speed regulation		
Standard Working Head	10mm		15mm	18mm
Processing Volume Range	0.2-250ml		50mL-1.5L	
Material in Contact with Materials	316L Stainless Steel			
Sleeve Material of Liquid Immersed Part	PTFE			
Main Unit Weight	0.6 kg	0.8 kg	1.6kg	
Optional Accessories	Flat bracket, German type cross clamp, hoop			
Optional Working Head	Φ6mm, Φ8mm, Φ10mm		Φ15mm	Φ18mm

## Digital High-Speed Homogenizer



### Introduction

The FJ200S digital high-speed homogenizer adopts a high-speed adjustment system. The speed measurement uses advanced electronic circuits, and the digital display is clear and easy to use.

Technical Parameter	
Model	FJ200-S
Rotational Speed	20000rpm
Large Homogenizer Knife	1500~16000rpm
Small Homogenizer Knife	1500~20000rpm
Continuous Working Hours	≤5min
Power	200W
Power Supply	AC 110-230V
Ambient temperature	-10~45°C
The Weight Of The Host	8kg
Size	300×220×500mm
Vertical Stroke	170mm



## Microcentrifuge



### Introduction

Microcentrifuges are widely used in clinical medicine, biology, chemistry, genetic engineering, immunology and other fields. They are conventional laboratory instruments for centrifugation and precipitation. Featuring simple operation, compact size, light weight, low noise and easy maintenance, these devices are highly practical for daily lab use.

### Principle

This instrument is controlled by a microcomputer and directly driven by an AC brushless motor. Equipped with a special shock absorption system, it realizes automatic balance and multiple protective functions with superior centrifugation performance. It supports accurate time setting in minutes.

Technical Parameter						
Model	LXJ-4	LXJ-6	LXJ-8	LXJ-4T	LXJ-6T	LXJ-8T
Rotate Speed	4000rpm	6000rpm	8000rpm	4000rpm	6000rpm	8000rpm
Timing Function	No			0-9999minute		
Standard Rotor	Angle Rotor: capacity 0.2/0.5/1.5/2.0ml×8tube; PCR Centrifuge Strip Tubes: capacity 0.2ml×8×2					
Power Supply	220V 50Hz					
Size	160×190×130mm					
Weight	1.8kg					

## Benchtop Low-Speed Centrifuge



TDL-4S-6  
TDL-4ST-6



TDL-4S-12  
TDL-4ST-12

### Introduction

The benchtop low-speed centrifuge separates substances of different densities and particle sizes in suspensions, emulsions and turbid liquids by centrifugal force generated by rotating rotors, and can also conduct analysis during separation. It is widely applied in chemical industry, food, pharmacy, environmental protection, mining, teaching and other fields.

Technical Parameter				
Model	TDL-4S-6	TDL-4S-12	TDL-4ST-6	TDL-4ST-12
Rotate Speed	400-4000r/min			
Power	150W	200W	150W	200W
Timing Function	No		0-9999minute	
Angle Rotor Capacity	6×20ml	12×20ml	6×20ml	12×20ml
Rotor Material	Aluminum Alloy			
Power Supply	AC 110-230V			
Size	225×295×245mm	275×330×273mm	225×295×245mm	275×330×273mm
Weight	4.8kg	6.5kg	4.8kg	6.5kg



## Mini Mixer



### Introduction

The mini mixer is mainly used for solvent mixing, liquid-liquid extraction, protein precipitation, herbal extract extraction, pesticide extraction, cell particle resuspension, plasmid extraction, etc. It is also an indispensable mixing equipment in laboratories such as pharmacokinetics, drug analysis, biochemistry, hospitals, feed testing, pesticide analysis, environmental analysis, commodity inspection, petrochemicals, etc.

This mini mixer is suitable for mixing solutions in test tubes, flasks, beakers, etc. The mixing speed is dozens of times faster than manual mixing, and the mixture is uniform and thorough.

This instrument integrates all functions such as continuous, speed adjustment, point vibration, plate type, and bowl type. It has a simple and reliable structure, small size, low power consumption, and is easy to operate. It is a powerful assistant for researchers and laboratory operators.

Technical Parameter			
Model	MXW-20D	MXW-20D+	MXW-20DL+
Power Supply	AC 110-230V		
Motor Power	12W		
Speed Range	0-3000rpm		
Operation Mode	pulse mode	pulse mode+speed control	pulse/continuous mode+speed control
Environmental Temperature	5-40°C		
Environmental Humidity	< 85%		
Outer Box Size	200×130×120mm		
Size	110×90×80mm		
Weight	0.5kg		



## Vortex Mixer



### Introduction

The vortex mixer is mainly used for solvent mixing, liquid-liquid extraction, protein precipitation, herbal extract preparation, pesticide extraction, cell particle resuspension, plasmid extraction, etc. It is also an indispensable mixing equipment in laboratories such as pharmacokinetics, drug analysis, biochemistry, hospitals, feed testing, pesticide analysis, environmental analysis, commodity inspection, petrochemicals, etc.

This vortex mixer is suitable for containers such as test tubes, flasks, beakers, and separating funnels to hold liquids and solid powders for mixing. The mixing speed is dozens of times faster than manual mixing, and the mixture is uniform and thorough. Some poorly soluble drugs and dyes, such as erythromycin staining solution, can also be easily mixed evenly. Because the mixer operates without the need to stir the mixed substances or add magnetic components, it also avoids the contamination of the mixed substances by external factors and the influence of magnetic fields.

The instrument has a simple and reliable structure, small size, low power consumption, and convenient operation. It is a powerful assistant for researchers and laboratory operators. It integrates all functions such as continuous, speed adjustment, point vibration, plate type, and bowl type.

Technical Parameter			
Model	XW-18D	XW-18DL	XW-18DL+
Power Supply	AC 110-230V		
Motor Power	58W		
Speed Range	0 - 2800rpm		
Operation Mode	pulse mode	pulse mode+speed control	pulse/continuous mode+speed control
Environmental Temperature	5 - 40°C		
Environmental Humidity	85%		
Size	240×190×240 mm		
Weight	2.8kg		



## Dry Nitrogen Evaporator



QW-DCY-G9A



QW-DCY-G25A

### Introduction

1.The dry nitrogen evaporator is used to blow nitrogen gas onto the surface of heated samples for sample concentration. This method features time-saving, convenient operation and easy control, and can quickly yield the expected results.

2.The nitrogen blowing device adopts a dry constant-temperature heater, which has good heat transfer performance and uniform heat transfer. The blowpipes are independent of each other and will not cause cross-contamination. This instrument is composed of a dry constant temperature heater, a PID control system, a sample cell 9/25 station, a blowpipe and a blowpipe tray, a sliding rod lifting frame, a gas flow regulating valve, etc.

Technical Parameter		
Model	QW-DCY-G9A	QW-DCY-G25A
Number Of Samples	9 holes / hole diameter 15mm	25 holes / hole diameter 15mm
Timing	0-999 minutes	
Temperature Indication Error	±1°C	
Temperature Control Range	Room temperature +8 ~ 190°C	
Heating Method	dry heating	
Display Usage	LCD liquid crystal backlit display, PID control	
Display Content	Current temperature, preset temperature; Current time, preset time;	
Mains Input	AC 110-230V	
Size	180×280×450mm	245×280×450mm
Weight	6kg	9.5kg

## Square Water Bath Nitrogen Evaporator

QW-DCY-S12A  
QW-DCY-S12AF  
QW-DCY-S12AFC  
QW-DCY-S12B  
QW-DCY-S12BF  
QW-DCY-S12BFC



QW-DCY-KS12A  
QW-DCY-KS12AF  
QW-DCY-KS12AFC



### Application

It is used for sample preparation in liquid chromatography, gas chromatography and mass spectrometry analysis. Adopting internationally recognized technology, it concentrates samples by blowing nitrogen onto the surface of heated samples. This method features time-saving performance, simple operation and easy control, enabling quick acquisition of expected test results.

### Principle

It applies solid-phase extraction pretreatment technology to replace traditional liquid-liquid extraction and chromatography techniques, achieving rapid separation and purification of samples. Nitrogen blowing concentration replaces conventional rotary evaporator concentration, greatly shortening the overall analysis time.

### Feature

The nitrogen blowing device adopts water bath heating with excellent and uniform heat conduction, facilitating rapid heating and precise temperature control. Nitrogen is blown over the sample surface to realize oxygen-free concentration of liquid samples. Independent blowing needles effectively avoid cross-contamination between samples.



Technical Parameter						
Model	QW-DCY-S12A	QW-DCY-S12B	QW-DCY-S12AF	QW-DCY-S12BF	QW-DCY-S12AFC	QW-DCY-S12BFC
Anti-Dry-Burning	No		Yes		Yes	
Magnetic Stirring	No		No		Yes	
Resolution	0.1	0.01	0.1	0.01	0.1	0.01
Temp Control Range	Room temperature +5 ~ 99.9°C					
Temp Control Accuracy	±0.5°C					
Heating Method	heating in water bath					
Volume Of Sample Bottle	15 or 20ml					
Test Tube Sample Holder	12 holes, diameter 15mm					
Display Mode	LCD liquid crystal backlit display; PID digital display control					
Display Content	Actual temperature/set temperature					
Power Supply	AC 110-230V					
Size	345×220×500 mm					
Weight	7 kg					

Technical Parameter			
Model	QW-DCY-KS12A	QW-DCY-KS12AF	QW-DCY-KS12AFC
Anti-Dry-Burning	No	Yes	Yes
Magnetic Stirring	No	No	Yes
Resolution Ratio	0.1°C		
Temperature Control Range	Room temperature +8 ~ 90°C		
Heating Method	heating in water bath		
Test Tube Sample Holder	12 holes, diameter 15mm		
Display Mode	LCD liquid crystal backlit display; PID digital display control		
Display Content	Actual temperature/set temperature		
Power Supply	AC 110-230V		
Internal Size	160×160×130 mm		
Boundary Size	490×220×500 mm		
Weight	9 kg		
Gas Supply Mode	Built-in Air Generator		



## Circular Water Bath Nitrogen Evaporator



### Introduction

The circular water bath nitrogen evaporator uses inert gases such as nitrogen to rapidly, controllably and continuously blow onto the surface of the sample to achieve rapid oxygen-free concentration of the sample solution. This method is characterized by time-saving, convenience and accuracy. It is widely used in fields such as food safety, medicine, pesticide residue detection, and clinical pharmacokinetics.

### Feature

- 1.The gas needle channels on the distribution chamber can be used in combination or individually, and each gas needle can be switched on and off independently. The height of the distribution chamber is adjustable as required.
- 2.The gas flow rate of each channel can be adjusted separately to meet different user needs. Meanwhile, it overcomes the shortcoming of uneven gas flow rates among different gas paths in non-adjustable nitrogen blowers.
- 3.The self-balancing suspended lifting mechanism features an ingenious design, enabling more flexible height adjustment of the distribution chamber.
- 4.Digital display with PID control.
- 5.All components that may come into contact with solvents are made of 304 stainless steel, ensuring a long service life and easy cleaning.
- 6.The whole instrument can be placed inside a fume hood for operation.
- 7.The commonly applicable aperture of heating tubes ranges from  $\phi 11\text{mm}$  to  $\phi 29\text{mm}$ ; users can order special apertures and specifications in advance for customized requirements.



Technical Parameter(Series A)			
Model	QW-DCY-YS12A	QW-DCY-YS22A	QW-DCY-YS24A
Processed Samples Qty	12 independent controls	22 independent controls	24 independent controls
Test Tube Applicable Range	11 ~ 29mm		11 ~ 27mm
Air Tray Lifting Height	0 ~ 150mm		
Air Nozzle Rotating Range	360°C		
Resolution	0.1°C		
Temperature control range	Room temperature +8 ~ 90°C		
Gas flow	Controllable from 0 ~ 35 L/min		
Size	460×350×580 mm		
Weight	10 kg		13 kg

Technical Parameter(Series B)			
Model	QW-DCY-YS12B	QW-DCY-YS22B	QW-DCY-YS24B
Processed Samples Qty	12 independent controls	22 independent controls	24 independent controls
Test Tube Applicable Range	11 ~ 29mm		11 ~ 27mm
Air Tray Lifting Height	0 ~ 150mm		
Air Nozzle Rotating Range	360°C		
Resolution	0.01°C		
Temperature control range	Room temperature +8 ~ 90°C		
Gas flow	Controllable from 0 ~ 35L/min		
Size	460×350×580mm		
Weight	10kg		13kg



## Sample Concentrator (Air Dryer)



Technical Parameter		
Model	QW-NSY-12S	QW-NSY-12ST
Timing Function	No	Yes
Hole Count	12 holes	
Hole Depth	45mm	
Air Source	Air source	
Diameter	16mm (±0.3mm)	
Flow Rate	35L/min	
Temperature Control Range	Room temperature +8 ~ 100°C	
Box Size	320×220×280mm	

### Introduction

The sample concentrator concentrates samples by blowing air onto the surface of heated samples.

### Feature

1. This method features time savings, convenient operation and easy control, enabling rapid attainment of expected results.
2. The sample concentrator uses a dry constant-temperature bath as the heating source, which features excellent and uniform heat transfer. The blowing nozzles are independent of each other, preventing cross-contamination.
3. This product is equipped with its own air source, compact in size and easy to carry. It is fitted with a PID liquid crystal display controller for high-definition display, along with backlit indicator buttons and a temperature control function (a timing function controller, i.e., a timing version, is available as an option).

## Air Generator



Technical Parameter	
Model	QW-KQ-19
Power	35 W
Exhaust Flow Rate	40 L/min
Air Tube Interface	M8
Material	Metal Housing
Power Supply	C 110-230
Size	145×195×220 mm
Gross Weight	3 kg



## Ultraviolet Analyzer

### Introduction

The ultraviolet lamp of the ultraviolet analyzer consists of two sets of quartz glass ultraviolet lamp tubes with wavelengths of 254nm and 365nm respectively, along with filters. The light source can be used for experiments after passing through the filters for color filtering. Both of these two light sources can be used either separately or simultaneously in combination. To sample and position the chromatography plate, an ordinary fluorescent lamp is installed inside the device. The entire machine has a simple structure, is lightweight, has strong part interchangeability, and is convenient for use and maintenance.

### Purpose

1. In scientific experiments, it is an essential instrument for detecting many major substances such as proteins, nucleotides, etc.

2. In the production and research of drugs, it can be used to check the quality of various fluorescent drugs such as hormone, alkaloids, vitamins, etc. It is particularly suitable for thin-layer analysis, paper-layer analysis spots and detection.

3. In the chemical industries such as dyes, coatings, rubber, petroleum, etc., it is used to measure various fluorescent materials, fluorescent indicators and additives, and to identify different types of crude oil and rubber products.

4. In textile chemical fibers, it can be used to determine different types of raw materials such as wool, silk, synthetic fibers, cotton, and to check the quality of finished products.

5. In the food and grain, vegetable, and food sectors, it can be used to check toxins (such as aflatoxin, etc.), food additives, spoiled vegetables, fruits, chocolate, fat, honey, sugar, eggs, etc. in terms of quality.

6. It can also be used for identification and verification by the public security department.



## Portable Ultraviolet Analyzer

WFH-204B



WFH-204BS



WFH-204C



Technical Parameter			
Model	WFH-204B	WFH-204BS	WFH-204C
Ultraviolet Wavelength	254nm, 365nm		
Ultraviolet Filter Plate Size	50×150mm		
Power Supply	AC 110-230V		
Lamp Tube Voltage	50V ± 10V		
Weight	1.4kg		0.8kg
Power Adapter	/	/	13.8V

## There-purpose Ultraviolet Analyzer

ZF-1



ZF-1S



WFH-203B



Technical Parameter			
Model	ZF-1	ZF-1S	WFH-203B
Ultraviolet Wavelength	254nm, 365nm		
Ultraviolet Filter Plate Size	50×200mm		50×150mm
Power Supply	AC 110-230V		
Lamp Tube Voltage	50V ± 10V		
Weight	3.7kg	2.5kg	6.1kg
Type	benchtop		dark box



## Photographable Dark Box Ultraviolet Analyzer



Technical Parameter		
Model	WFH-202BP	WFH-203BP
Ultraviolet Wavelength	254nm 6W×2; 365nm 6W×1; 302nm 6W×1	254nm 6W×2; 365nm 6W×2
Visible Light	6W×1	
Ultraviolet Color Filter	200×90mm	
Size	310×280×360mm	
Maximum Irradiation Area	250×250mm (usable area)	
Power Supply	AC 110-230V	
Weight	7.2kg	

## Dark Box Escherichia Coli Analyzer

### Structure

This instrument is composed of UV lamps and optical filters. It can emit intense 366nm ultraviolet light and support simultaneous use of mixed wavelengths.

Featuring low power consumption and low heat generation, it allows long-term continuous operation. It can be started instantly for immediate use. Visible light is filtered out, providing pure high-intensity 366nm UV light for fluorescence analysis.



Technical Parameter		
Model	WFH-202BP	WFH-203BP
Ultraviolet Wavelength	254nm 6W×2; 365nm 6W×1; 302nm 6W×1	254nm 6W×2; 365nm 6W×2
Visible Light	6W×1	
Ultraviolet Color Filter	200×90mm	
Size	310×280×360mm	
Maximum Irradiation Area	250×250mm (usable area)	
Power Supply	AC 110-230V	
Weight	6.5 kg	7.2 kg



## Infrared Inoculation Loop Sterilizer



### Introduction

The infrared inoculation loop sterilizer is equipped with an intelligent temperature controller. It sets the sterilization temperature according to the experimental requirements. There is no open flame operation. The heating component uses an efficient ceramic infrared heating tube, featuring a small size, light weight, simple operation, fast heating, high temperature, long service life, etc. It can quickly disinfect small instruments, is not affected by external factors, improves the working efficiency of experiments, and can adapt to various experimental environments.

It is a powerful assistant for experiment operators in various levels of health and epidemic prevention stations, environmental monitoring stations, food hygiene supervision and inspection institutes, hospitals, biological product institutes, drug inspection institutes, food factories, daily chemical factories, colleges and universities, and research institutions.

Technical Parameter				
Model	QW-MJ-15	QW-MJ-15S	QW-MJ-35	QW-MJ-35S
Central Zone High Temperature	850 ± 25°C			
Disinfection Product Outer Diameter	15mm		35mm	
Heating Zone Total Length	165mm		120mm	
Heating Time	15min			
Environmental Temperature	5-40°C			
Fuse	3A			
Power Supply	AC 110-230V			
Power	150W		250W	
Weight	1.3kg		1.6kg	
Size	170×105×180mm		170×105×200mm	
Timing Function	No	0 - 999 minutes	No	0 - 999 minutes



## Ford Cup 4 Viscometer



### Introduction

The ford cup 4 viscometer is suitable for measuring the viscosity of coating products with a viscosity of less than 150 seconds. This instrument is manufactured in accordance with the requirements of the national standard "GB/T 1723 Viscosity Measurement of Coatings". It is a portable device that measures the viscosity of coatings under specific conditions. That is, the time it takes for the liquid to be tested to flow out of a standard tube hole after filling a specific container is used to determine the viscosity of the liquid, with the unit being seconds.

### Principle and Calculation

The viscosity measured by the Ford Cup No. 4 viscometer is a conditional viscosity, which is the time it takes for a certain amount of sample to flow out of a hole with a specified aperture at a certain temperature, expressed in seconds. The obtained sample outflow time (s) is converted into kinematic viscosity value ( $\text{mm}^2/\text{s}$ ) using the following formula:

$$t < 23\text{s}, t = 0.154\mu + 11$$

$$23\text{s} \leq t \leq 150\text{s}, t = 0.223\mu + 6.0$$

### About

t - outflow time, s;

$\mu$  - kinematic viscosity,  $\text{mm}^2/\text{s}$ .

### Feature

1. The ford cup 4 viscometer is made of brass with a capacity of approximately 100 milliliters. Its geometric dimensions and inner wall roughness comply with the provisions of "GB/T 1723 - Method for determination of viscosity of paints". The bottom of the viscometer has a stainless steel outflow orifice.

2. Correction factor K: The viscosity measured by the calibrated viscometer should be multiplied by the K value to obtain the conditional viscosity measured by the viscometer. The correction factor K should be within the range of  $1 \pm 0.03$ ; otherwise, the viscometer should be replaced. The viscometer should be calibrated regularly according to its frequency of use.

3. The difference between the measured and calculated outflow times of the standard viscosity liquid with known kinematic viscosity from the cup-4 viscometer should be within  $\pm 3\%$  of the calculated value.



## Oil-free Diaphragm Vacuum Pump



### Introduction

The oil-free diaphragm vacuum pump features a simple structure, easy operation, convenient maintenance, small size, and easy mobility. It also has good durability and high efficiency, achieving the functions of removing impurities from liquids, purification, and sterilization. It is a dual-purpose vacuum pump capable of both vacuum extraction and compression, and is a basic equipment with a wide range of applications for achieving vacuum.

Technical Parameter					
Model	XZ-1	XZ-2	XZ-3	XZ-4	XZ-6
Vacuum Pressure	≥70Kpa				
Positive/Negative Pressure	Negative Pressure		Positive/Negative Pressure		
Flow Rate	10L/min		35L/min	40L/min	60L/min
Power	80W		85W	140W	300W
Power Supply	AC 110-230V				
Size	250×65×190mm		260×200×330mm	300×250×280mm	400×250×320mm
Weight	3.2kg	3.5kg	10.5kg	12.5kg	18.5kg

### Attention

1. Do not start under pressure. Do not pump liquid into the pump. It is recommended to add a buffer bottle.
2. When using a dual positive/negative pressure pump, do not use for both suction and inflation simultaneously.
3. Do not operate continuously for more than 30 minutes.
4. Dust must not enter the connecting tube. Keep the suction tube clean.
5. Connect the long tube end to the suction interface and the short tube end to the inflation interface. Do not connect the interfaces in the opposite direction.
6. This pump is not suitable for extracting gases that corrode ferrous metals, those that react chemically with pump oil, those containing particle dust, or gases with excessive oxygen and explosive toxicity. It cannot be used as a transfer pump (i.e., transferring from one container to another).



## Pressure-adjustable Oil-free Diaphragm Vacuum Pump



### Introduction

The oil-free diaphragm vacuum pump has adjustable pressure, featuring a simple structure, convenient operation, high vacuum degree, long service life, and good durability. It is also a dual-purpose vacuum pump for vacuuming and compression.

It has a wide range of applications; when combined with corresponding equipment, it can be used in oxygenators, nitrogen blowers, solid phase extraction instruments, thin-layer colorimetric spraying, solvent filters, atmospheric samplers, and to meet various other vacuum requirements.

According to the needs of different operators, different materials and different filter pore diameters of filter membranes can be selected. This achieves the effect of removing impurities in solvents, purifying, and disinfection.

Technical Parameter					
Model	XZ-1+	XZ-2+	XZ-3+	XZ-4+	XZ-6+
Vacuum Pressure	≤80Kpa				
Positive/Negative Pressure	Negative Pressure	Positive/Negative Pressure			
Flow Rate	10L/min		35L/min	40L/min	60L/min
Power	80W		85W	140W	300W
Power Supply	AC 110-230V				
Size	250×145×235mm		260×145×235mm	300×250×280mm	400×250×320mm
Weight	3.2kg	3.5kg	10.5kg	12.5kg	18.5kg



## Fat Analyzer



### Introduction

The fat analyzer is mainly composed of a digital-display electric-heated constant-temperature water bath for heating and extraction, solvent condensation and recovery, as well as digital-display automatic temperature and time control.

During operation, the digital-display temperature controller can be adjusted in real time (an optional timed temperature controller is available) according to the different boiling points of solvents and variations in indoor temperature. During operation, the condenser can be manually moved up and down separately.

The connections between the condenser, extractor, and extraction flask adopt ground glass joints, resulting in good sealing performance of the assembled set.

After the sample is extracted with solvents such as anhydrous diethyl ether or petroleum ether, the substance obtained by evaporating the solvent is referred to as fat or crude fat in food analysis. Since it contains not only fat but also pigments, volatile oils, waxes, resins and other substances, the fat determined by the extraction method is free fat.

Technical Parameter			
Model	QW-SZF-02A	QW-SZF-04A	QW-SZF-06A
Measurement Range	Grains, feeds, oilseeds and various fat products with an oil content ranging from 0.5% to 60%.		
Determine The Sample	2	4	6
Power Supply	AC 110-230V		
Electric Heating Power	Water bath heating at 350W	Water bath heating 1000W	
Temperature Control Range	Room temperature +5—100°C		
Overall Dimensions	380×240×700mm	/	730×700×220mm
Net Weight	16kg	/	25kg

1. Two models of extractable bottles, 250ml and 500ml, are available for selection;
2. Non-recyclable reagent models are optional, with the same housing but different reflux devices.



## Crude Fiber Analyzer



### Introduction

The Crude Fiber Analyzer is an instrument that digests samples using the commonly adopted acid-base digestion method and determines the crude fiber content of samples through gravimetric measurement. It is suitable for determining the crude fiber content in various feeds, grains, cereals, foods and other materials.

### Principle

This instrument uses fixed amounts of acid and alkali to digest samples under specific conditions. Soluble substances are then removed using ether and acetone. After high-temperature ignition, the mineral content is deducted, and the remaining amount is known as crude fiber.

It is not an exact chemical entity, but only a general component measured under universally recognized and mandatory specified conditions, mainly consisting of cellulose, along with a small amount of hemicellulose and lignin.



Technical Parameter	
Test Object	Various feeds, grains, cereals, foods and other agricultural and sideline products for which crude fiber content needs to be determined
Number Of Test Samples	6 pieces per time
RepeatabilityError	when the crude fiber content is below 10%, the absolute error $\leq 0.4\%$ ; when the crude fiber content is above 10%, the absolute error $\leq 4\%$
Measurement Time	Approximately 100 minutes are required on the instrument (including 30 minutes of acid pickling, 30 minutes of alkaline washing, and about 40 minutes for preheating, suction filtration and washing)
Power Supply	AC 110-230V
Power	2.5KW



## Kjeldahl Nitrogen Analyzer



### Introduction

The Kjeldahl nitrogen analyzer is an automatic nitrogen measurement distillation system designed based on the classic (Kjeldahl nitrogen determination) method.

The main working processes of the instrument include: automatic water addition (with automatic water level detection function), automatic alkali addition (controlled by buttons), manual acid addition (manually configured), automatic distillation (controlled by buttons), and several other parts.

This instrument is easy to operate. Safe and reliable to use; Save time and effort; It is applicable to the analysis, teaching and research in industries such as grain and oil testing, feed analysis, plant nutrient testing, soil and fertilizer testing, medicine and chemical engineering, and is an ideal tool for operators and users.

### Working principle

Protein is an organic compound containing nitrogen. Food is heated and digested together with sulfuric acid and a catalyst, causing proteins to break down. The decomposed ammonia combines with sulfuric acid to form ammonium sulfate. Then, under the action of alkalization distillation, ammonia is released. The released ammonia gas, along with water vapor, is condensed through a condenser tube and then enters a conical flask containing boric acid. After being absorbed by boric acid, titrate with standard solutions of sulfuric acid or hydrochloric acid. Multiply the consumption of acid by the conversion factor to obtain the protein content.

Technical Parameter	
Tested Samples	Grains, feeds, foods, dairy products, beverages, soil, water, pharmaceuticals, sediments, chemicals, etc.
Operating Mode	Semi-automatic.
Testing Method	Single continuous distillation measurement.
Measuring Range	Nitrogen content of 0.1 to 200 mg N (Nitrogen content: 0.1% to 99%)
Recovery Rate	≥99% (relative error, including digestion process)
Repeatability	Relative standard deviation < ±1%
Operating Time	Distillation time of 5 to 15 minutes (depending on the sample and nitrogen content)
Power Supply	AC 110-230V
Rated Power	800W
Cooling Water Consumption	3-4 L/min (water temperature below 25°C)



## Aflatoxin Detector

### Principle

This device employs thin-layer chromatography. After extraction, concentration and thin-layer separation of aflatoxin B1 in the sample, it generates purple fluorescence under ultraviolet light with a wavelength of 365nm.

The content is determined based on the minimum detectable amount of fluorescence displayed on the thin layer.



Technical Parameter	
Test Varieties	grains, food feed, fermented products of fish and shrimp, etc.
Minimum Detectable Activity (MDA)	0.0004 micrograms
Power Supply	AC 110-230V
Roaster	heating area: 200×200mm, power: 600W, weight: 6kg, size: 270×235×150mm
Sample Applicator	sample diameter: < 3mm, weight: 8kg working dimensions: 200×200mm, external size: 280×245×315mm
Inspection Box	ultraviolet light wave: 365nm, light source power: 12W weight: 11kg, external size: 300×310×445mm



## **HANGZHOU QIWEI INSTRUMENT CO., LTD.**

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Add: 101 ROOM, 25 BUILDING, NO. 488-1 DONGHU NORTH ROAD,  
LINPING, HANGZHOU CITY, ZHEJIANG PROVINCE, CHINA.

Phone: 86-571-89890686

Cell:86-19016986100 (WECHAT & WHATSAPP)

Website: [WWW.QIWEILAB.COM](http://WWW.QIWEILAB.COM)

E-mail: [INFO@QIWEILAB.COM](mailto:INFO@QIWEILAB.COM)