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**PROVIDE YOU WITH  
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FOR SAMPLE PRETREATMENTS**

**NINGBO SCIENTZ BIOTECHNOLOGY CO., LTD.**

A National High-Tech Enterprise  
Top Ten Well-Known Brands of Life Science Instrument



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# About us

**Ningbo Scientz Biotechnology Co.,Ltd** (Stock code:430685),it'a National Hi-Tech Enterprise that specialized in producing ultrasonic apparatuses and instruments that serve the needs of Scientific research ,Education,Hospital ,Pharmaceutical Industry, Environment protection , Scientz has been chosen many times of the Top ten Well-Known Brands of life SCIENTZ ,Had undertaken Important National Science&Technology Specific project of MOHC and The National Development and Reform commission ,approved by ISO9001:2008 international quality management system furthermore obtained CE ,

Scientz is the largest manufacturer of ultrasonic homogenizer in China ,As a leader worldwide

Scientz holds multiple patents for the high-pressure gene gun ,that ranks first in Asia in quality and feature Scientz series ultrasonic cleaner ,tissue grinder ,paddle blender, freeze dryer,water bath ,Gene transduction device ,Cell fusion apparatus etc all received positive feedback

Scientz it's the project of scientific instrument industrialization base of National Development and Reform Commission ,the products exported to 36 countries including France ,UK ,Russia etc

Scientz had set up offices and service centers in many cities of China ,received all the good reputation from the user



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## SCIENTZ-IID Ultrasonic Homogenizer

CE : ZL200920122245.6



### FEATURES

- It adopts PWM control switch power supply, and the power is continuously adjustable
- It adopts 7 inch TFT touch screen display, high resolution
- Central microcomputer centralized control
- Ultrasonic time, power arbitrary setting
- Sample temperature detection display, power display,microcomputer tracking,automatic fault alarm
- Sound Abating trap adopts sheet metal,spray plastic,ABS material,die design,with lock function

### APPLICATION AREA

**Life sciences:** Lysis, fragmentation, leaching of bacteria, viruses, spores and other cellular structures, extraction of DNA and protein in plants and animals, pruning of DNA/RNA, chromatin immunoprecipitation technique

**Materials chemistry:** the dispersion and cracking of nanomaterials, such as carbon nanotubes, graphene and other materials.cracking,emulsification,homogenization and crusing of homogeneous soil, rock samples, non-ferrous metals, rare earth particles.

In addition, it can be used for the dispersion and extraction of Chinese herbal medicines. It can be used for the dispersion, homogenization and acceleration reaction of other samples, and also for sample pretreatment in chemical, medical, archaeological, geological and Marine Fields

### TECHNICAL PARAMETERS

Model	Scientz-IID	Accompany	Φ6mm
Frequency	20-25KHZ automatic tracking	Optional Tip	Φ2, 3, 10mm
Power	950W ( 1%-99%)	Storage Data	20 groups
Display	7 inch TFT touch screen	Temperature Alarm	0-99°C
Display Content	Time、 Power、 Temperature	Alarm	Over-temperature、 Overload, and overtime
Processing Volume	0.5-600ml	Timing	0-999min
Duty Ratio	0.1-99.9%	Working Mode	Gap/Continuity

## F Series Ultrasonic Homogenizer

Ultrasonic Homogenizer is ultrasonic treatment equipment specially designed for dispersing materials; it has the advantages of strong power output and good dispersion effect.

**Application area:** Materials chemistry: the dispersion and emulsification, and homogenization of nanomaterials, such as carbon nanotubes, graphene and other materials.

### FEATURES

- With new software, central microcomputer centralized control
- It adopts Backlit and LCD large screen display
- Ultrasonic power step with 1% continuous adjustable.
- With pulse and continuous operation, and with test function
- Ultrasonic time, gap time, and total time can be accurate to 0.1 seconds.



### TECHNICAL PARAMETERS

Model	Scientz-750F	Scientz-1500F	Scientz-2400F
Frequency	19.5-20.5 KHz	19.5-20.5 KHz	19.5-20.5KHz
Display	LCD	LCD	LCD
Adjustable Power Range	750W(20%-99%)	1500W(20%-99%)	2400W(20%-99%)
Optional Tip	6, 15mm	15, 25mm	No
Processing Volume	5-700ml	50-1200ml	500-5000ml
Duty Ratio	0.1-99.9%	0.1-99.9%	0.1-99.9%
Temperature Alarm	Yes (Prevent sample overheating)	Yes (Prevent sample overheating)	Yes (Prevent sample overheating)
Alarm	Time、Temperature、Overload	Time、Temperature、Overload	Time、Temperature、Overload
The Size of Power Supply Chassis	400*280*220(mm)	400*280*220(mm)	400*280*220(mm)
Standard Configuration	Generator host 1pc、Dispersing head 1pc、Sound Abating trap 1pc	Generator host 1pc、Dispersing head 1pc、Sound Abating trap 1pc	Generator host 1pc、Dispersing head 1pc、Sound Abating trap 1pc

## JY-N Ultrasonic Homogenizer

ULTRASONIC HOMOGENIZER

### FEATURES

- With new software, central microcomputer centralized control
- It adopts 7 inch TFT touch screen display
- Ultrasonic power step with 1% continuous adjustable.
- With pulse and continuous operation, and with test function
- Ultrasonic time, gap time, and total time can be accurate to 0.1 seconds.



JY96-IIN、JY88-IIN、JY92-IIN、JY92-IIDN Ultrasonic Homogenizer  
ULTRASONIC HOMOGENIZER

### TECHNICAL PARAMETERS

Model	JY96-IIN	JY88-IIN	JY92-IIN	JY92-IIDN
Frequency	20-25KHz	20-25KHz	20-25KHz	20-25KHz
Display	LCD	LCD	LCD	LCD
Adjustable Power Range	150W(5%-99%)	250W(5%-99%)	650W(1%-99%)	900W(1%-99%)
Accompany Tip (Φ)	6mm	6mm	6mm	6mm
Optional Tip (Φ)	3mm	3mm	2, 3, 10, 12, 15mm	2, 3, 10, 12, 15mm
Processing Volume	10-100ml	10-200ml	0.5-500ml	0.5-600ml
Duty Ratio	1-99%	1-99%	1-99%	0.1-99.9%
Temperature Alarm	No	No	No	0-99°C(Prevent sample overheating)
Alarm	time, overload	time, overload	time, overload	time, temperature、overload
Power Supply	220/110V 50Hz/60Hz	220/110V 50Hz/60Hz	220/110V 50Hz/60Hz	220/110V 50Hz/60Hz
The Size Of Power Supply Chassis	430*255*300mm	430*255*300mm	430*255*300mm	430*255*300mm
The Weight(The Host And Transducer)	9.3Kg	9.8Kg	14Kg	14.2Kg
The Size Of Sound Abating Trap	345*340*570mm	345*340*570mm	345*340*570mm	345*340*570mm



JY98-IIIN、JY98-IIDN、JY99-IIDN Ultrasonic Homogenizer  
ULTRASONIC HOMOGENIZER

### TECHNICAL PARAMETERS

Model	JY98-IIIN	JY98-IIDN	JY99-IIDN
Frequency	19.5-20.5 KHz	19.5-20.5 KHz	19.5-20.5KHz
Display	7 inch TFT touch screen	7 inch TFT touch screen	7 inch TFT touch screen
Adjustable Power Range	1200W(20%-99%)	1200W(20%-99%)	1800W(20%-99%)
Accompany Tip	20mm	20mm	25mm
Optional Tip	15, 25mm	15, 25mm	20, 28mm
Processing Volume	50-1000ml	50-1000ml	50-1200ml
Duty Ratio	1-99%	0.1-99.9%	0.1-99.9%
Temperature Alarm	No	Yes(Prevent sample overheating)	Yes (Prevent sample overheating)
Alarm	Over-temperature、overtime、overload	Over-temperature、overtime、overload	Over-temperature、overtime、overload
The Size Of Power Supply Chassis	430*255*300mm	430*255*300mm	430*255*300mm
New Weight	12.1Kg	12.1Kg	13Kg
The Size Of Sound Abating Trap	345*340*570mm	345*340*570mm	345*340*570mm
The Weight(The Host And Transducer)	14.5Kg	14.5Kg	15Kg

## CUP-FORM (NON TOUCH)

### ULTRASONIC HOMOGENIZER

It can be used for asepsis and ultra micro crushing, and can break the chromosomes and broken cells through the centrifuge tube. It is for the two generation sequencing DNA samples and chromatin immunoprecipitation assay sample pretreatment tailored. Compared with the traditional probe type ultrasonic homogenizer, the non-contact sample can be broken under the sealed container, no infection flying fog, the probe is not contacted with the sample, the cross contamination is avoided. It is more efficiency and safety.

A plurality of samples can be detected at once, the experiment efficiency is higher, no need to operate probes frequently, all kinds of products are in separate sealed tubes, so as to avoid cross contamination.

Optional cooling water circulation system, to facilitate the sample is in ultrasonic bath at 4 °C, energy distribution, ultrasonic effect completely. Flexible parameter setting and experimental procedure standardization, good repeatability, and high reliability results. Gradually become an indispensable standardized tool for CHIP (chromatin immunoprecipitation) and DNA shear research platforms. The experiment has high efficiency, reliable result and good repeatability. It can handle 5ul samples at least, and it is suitable for precious samples.

### FEATURES

- No aerosol generation -enhance biological safety (such as Mycobacterium, virus, etc.)
- Eliminates the risk of cross contamination of samples
- Eliminates dregs phenomenon of traditional probe
- A variety of samples can be processed ,with a wide range of sample handling
- It is suitable for all kinds of standard containers
- It can process microscale samples, the minimum to 5μL
- The automatic continuous rotation of the centrifuge tube makes the ultrasonic energy distribution more uniform
- It is optional to buy low temperature water bath according to customer's demand for a variety of diameter Eppendorf tube rotating base.

### TECHNICAL PARAMETERS

It is optional to buy low temperature water bath according to customer's demand for a variety of diameter

Model	Scientz98-III	Scientz08-II	Scientz08-III
Frequency	19.5-20.5KHz	28KHz±1 KHz	20KHz±1 KHz
Power	1200W(Adjustable)	1800W (Adjustable)	2200W(Adjustable)
Adjustable Power	1-99%	1-99%	1-99%
Time	1-999min	1-999min	1-999min
Duty Ratio	1 -99%	1-99%	1 -99%
Processing Volume	700ml	2L	3L
Temperature Display	Yes	Yes	Yes
Crushing Support	(0.1-2ml)*4	1-2ml*16 hole 5ml*8 hole 10-15ml*8 hole	1-2ml*32 hole 5ml*20 hole 10-15ml*17hole
Power Supply	220/110V±0.5 50Hz/60Hz	220/110V±0.5 50Hz/60Hz	220/110V±0.5 50Hz/60Hz

Eppendorf tube rotating base.

### APPLICATION AREA

- DNA Fragmentation
- RNA Fragmentation
- Bacteria and cell breakdown
- ChIP assay(Chromatin immunoprecipitation)
- High throughput sequencer sample pretreatment
- Take membrane proteins
- Homogeneous emulsification reaction
- Ultrasonic treatment of precious reagents



Scientz98-III



Scientz08-II/III

### TECHNICAL PARAMETERS

Tip Optional Reference

Tip Model (Dia)	Frequency	Amplitude	Power Range	Processing Volume
Φ2 1/12"	20-25KHz	300um	20-250W	0.5-5ml
Φ3 1/8"	20-25KHz	250um	30-400W	3-10ml
Φ6 1/4"	20-25KHz	220um	60-650W	10-100ml
Φ10 5/12"	20-25KHz/ 19.5-20.5KHz	150um	100-950W	100-200ml
Φ12 1/2"	20-25KHz	150um	100-950W	100-200ml
Φ15 5/8"	20-25KHz/ 19.5-20.5KHz	145um	200-950W	200-500ml
Φ18 3/4"	20-25KHz	100um	200-950W	200-500ml
Φ20 3/4"	19.5-20.5KHz	60um	400-1200W	500-1000ml
Φ25 1"	19.5-20.5KHz	40um	800-1800W	500-1200ml

Various models ultrasonic homogenizer optional parts

Titanium Alloy Tip



Specialised Broken Bottle



30ml

40ml

100ml

## XHF-DY

HIGH-SPEED DISPERSATOR

### TECHNICAL PARAMETERS

Power Supply	220V	The Size Of Blade	Φ10mm processing volume:3-200ml; Φ14mm processing volume:100-500ml; Φ18mm processing volume:50-1000ml
Power	360W		
Adjustable range	2800-28000rpm/min	Display	LED
Capacity	3ml-1000ml	The Weight Of The Model	6.0Kg
Timing Range	1-9.9min Adjustable	External dimensions	320*220*430mm
Ambient Temperature	-10°C-40°C	Net Weight	8Kg



## S10 HIGH-SPEED HOMOGENIZER

S10 model High-speed homogenizer (alias: tissue-pounding machine, powder-dispersive machine), is suited to liquid mixing, emulsion, homogenization dispersion of solid powder in a liquid, animal tissue crushing and homogenization. The machine is designed to bring about a strong hydrodynamic shear effect by means of high-speed shear force and speedy dispersion so that the material inhaled from the rotor bottom can spray through the stator. The extruded shapes suits ergonomics. It is easy to move and operate. As minimum processing capacity can be 1ml, it is solely used for mashing organization, medical diagnostics, quality supervision, micro-dispersion, emulsification and homogenization. The device is ideal for micro-sample pre-treatment.

### TECHNICAL PARAMETERS

Power Supply	220V 50/60HZ	Processing Volume	1ml-120ml
Power	160W	Accessories	10mm
Speed	8000-35000rpm/min	Total Weight	1kg
Display	LCD	Optional accessories	Working Platform, Container Clamp, Replaceable Cutter (6mm, 8mm)
Speed mode	Stepless speed		



## DY89-II

GLASS HOMOGENIZER

On the principle of grinding mechanism, the system is designed to homogenize the animal and plant tissue in a soft manner, so as to get the cytoplasm and mitochondria for experiment. Applicable to biology, pharmacy, agriculture and other areas. It has the characteristics of a low speed, high torque, no noise etc.

Speed	50-2200r.p.m adjustable	Optional Accessories	1ml, 3ml, 5ml, 50ml
Maximum Power	150W	Display mode	Digital
R.P.M display	Yes	Net weight	12Kg
Accessories	10ml, 20ml each one	Packing size	345*345*710mm



## SCIENTZ-T Series

ULTRASONIC EXTRACTION DETAILS

Economical & Practical Sonicator or ultrasonic extraction machine

Scientz ultrasonic homogenizer series is designed for applying a cavitation effect in a liquid by means of ultrasonic waves. It can be used to disintegrate cells of various kinds of animals and plants, viruses, bacteria, tissues as well as to reshape inorganic substances.

### APPLICATION

It can also be used in emulsification, separation, distribution, collection cleaning and nano-material preparation, dispersion acceleration of chemical reactions, etc. It has wide applications in teaching, researching, and manufacturing in many fields such as biology, microbiology, physics, zoology, agriculture and pharmacology and been used by some labs



### TECHNICAL PARAMETERS

Model No	Scientz-5T	Scientz-10T	Scientz-15T	Scientz-30T	Scientz-50T
Working Frequency	20-25KHz	20-25KHz	20-25KHz	20-25KHz	20-25KHz
Ultrasonic power	20-1000W	20-1200W	200-1500W	200-1800W	250-2400W
Reaction volume	5L	10L	15L	30L	50L
Tip Dia	30mm	30mm	30mm	50mm	50mm
Working voltage	220v	220v	220v	220v	220v
Ultrasonic time	0.1-99.9s	0.1-99.9s	0.1-99.9s	/	/
Interval time	0.1-99.9s	0.1-99.9s	0.1-99.9s	/	/
Full time	1-999min	1-999min	1-999min	1-999min	1-999min
Power setting	1-99%	1-99%	1-99%	1-99%	1-99%
Duty Ratio	0.1-99.9%	0.1-99.9%	0.1-99.9%	0.1-99.9%	0.1-99.9%
Real measure Tem	Yes	Yes	Yes	Yes	Yes
Mixing power	60w	60w	60w	60w	60w
Stirring speed	10-600r/min	10-600r/min	10-600r/min	10-600r/min	10-600r/min
Shelf	Stainless	Stainless	Stainless	Stainless	Stainless
Additives Volumetric flasks	Yes	Yes	Yes	Yes	Yes
Inlet/Outlet	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes
Cooling capacity	500W	800W	1200W	2250W	2250W
Cooling temperature	-5°C-room tem				

## SCIENTZ-12/SCIENTZ-24

SCIENTZ-24 high-throughput tissue grinder adopts 4.3" touch screen display, the parameter setting is simple and intuitive, and the operation is stable. It is capable of quickly processing multiple samples at the same time in the fields of research institutes, universities, agricultural institutes, biomedicine, and food testing Professional setting.

This product supports the extraction and purification of raw DNA, RNA and proteins including soil, plant and animal tissues / organs, bacteria, yeast, fungi, spores, paleontological specimens, etc. Supports dry grinding, wet grinding, mixed grinding and homogenization. The closed disposable centrifuge tube effectively avoids sample cross-contamination. It has the characteristics of high repeat ability, good uniformity and sufficient grinding.

### FEATURES

- Supports placing the centrifuge tube directly in the adapter, and directly pre-freezing the centrifuge tube
- The grinding process is completely closed, and the samples move independently to avoid cross-contamination
- Built-in program controller, simple and convenient parameter setting
- Using silent design to reduce interference to the surrounding environment
- Equipped with a safety door lock, with the protection function of opening and stopping the stall, with high safety
- Vertical vibration, more sufficient grinding, excellent consistency for multiple grinding of the same sample
- Quick grinding of 24 samples in a short time

### TECHNICAL PARAMETERS

Model	SCIENTZ-24	Frequency Setting	500-2500rpm
Power	220v/50Hz	Jig Distance	20mm(vertical)
Rate Power	180W	Sample Capacity	24 holes for 2ml adapter
Time Setting	1-9999s	Display	4.3 inch TFT touch
Protection	open cover protection, emergency braking function		
Model	SCIENTZ-12		
Power	220v/50Hz		
Rate Power	100W		
Time Setting	1-9999s		
Speed setting	500-2100 rpm		
Data storage	can store 50 sets of data		
Fixture stoke	40mm (vertical)		
Sample capacity	Standard: 12ml 2ml adapter Optional: 6 holes for 5ml adapter Optional: 10ml, 15ml, 25ml, 50ml grinding tank Optional: Freezing adapter.		
Grinding method	wet grinding, dry grinding, pre-freezing grinding		
Grinding beads	φ3mm 316L steel balls (100 pieces) φ6mm 304 steel balls (100 pieces),Optional zirconia beads		
Display	4.3 inch touch screen		
Protection	open cover protection, emergency braking function		
Dimensions	225mm × 275mm × 350mm (length x width x height)		
Weight	≤12KG		
Power	220V / 50Hz		



## SCIENTZ-48

HIGH-THROUGHPUT TISSUE GRINDER

### TECHNICAL PARAMETERS

Power Supply	220V/50Hz
Rated Power	180W
Timing	1s-9999s
Frequency Setting	10-70Hz,300-2100times/min
Clamp Stroke	34mm(vertical)
Sample Capacity	2ml Adaptor 48hole,5ml Adaptor12 hole
Display	7inch TFT Touch Screen
Protection	Open lid protection, Emergency braking function
Dimension	L369*W360*H520mm
Accompany accessories: 500pcs 3mm stainless steel ball and 500pcs 6mm stainless steel ball	



Patent Number: ZL200420019738.4

## Laboratory Paddle Blenders

Germfree Homogenizer, also known as flap homogenizer, is widely used in the homogenization treatment for animal tissue and biological samples, also used for the following testing areas: food, pharmaceutical ,cosmetics, clinics molecule, toxin and bacteria, particularly suitable for preparation of micro-organism testing samples. The device is made

Of stainless steel and can effectively separate the surface of solid sample from a sample with germs inside.The samples are packed in germfree disposable homogenization bags, and thus is in no contact with any parts of the instrument. It has such feature as soft homogenization, no pollution,no damage,no temperature-rise,no sterilizing treatment, no need to wash the utensils. so as to meet the requirements for being fast, accurate and repeatable. This product is also suitable for homogenizing tumor tissues( such as liver, intestines cancer, stomach cancer, breast cancer) not only can to obtain large numbers of single cells(2×10<sup>5</sup> within 2 minutes) but also crush tissues cells (such as liver cells)more gently.



### TECHNICAL PARAMETERS

Model	Scientz-04	Scientz-09	Scientz-11L
Timing	30、180、600s or ∞ (continuous working Turn)	0.1 ~ 99min (to 0.1mins step)	
Rap Speed	6-9 time/Sec	3~12times/Sec (to 0.1minutes step) Display the actual rattling number, the system	
Capacity	3-400ml	3-400ml	3-400ml
Ratting Box	Stainless Steel	Stainless Steel	Stainless Steel
Parameter storage	NO	1More than 10 groups of multi-stage programming	More than 10 groups of multi-stage programming
Power	300W	300W	500W
Display	LCD	Digital	LCD
Temperature control	NO	NO	Room temperature--50 °C to set, temperature display
UV Disinfection	NO	NO	YES
Sterile bag	17*30cm	17*30cm	17*30cm
Net Weight	22.5Kg	18.5Kg	18.5Kg
Protection Device	With auto-stop anti-trap feature, Removable windows and adjustable slap board, toughened glass security door		
Dimensions	400*420*260mm	420*245*340mm	420*245*340mm

## JG-IA ULTRA HIGH PRESSURE HOMOGENIZER

PROCESSOR CELLPRESS

PATENT NUMBER: ZL200910099490.4

The highest pressure of JG-IA is 256Mpa (37120PSi), which can satisfy many cell wall breaking and nano homogenization / dispersion of sample, and realize effective temperature control at the same time

- Continuously adjustable pressure, 0-37,120 psi
- Simple operation, continuous circulation of sample, no exhaust, directly feed
- Physical methods crushing to avoid external pollution
- Convenient maintenance
- The safety factor is high, and the circuit has overload automatic protection function
- Many kinds of cell walls and samples are satisfied, and no specific for samples



### FEATURES

E. coli and yeast broken, animal and plant cells broken, the crushing rate of more than 95% one time

Yeast / Ganoderma lucidum spore and other fungi broken; cyanobacteria / green algae and other algae broken;

It can be homogeneous emulsions, liposomes, microemulsions, solid and liquid suspensions up to 100nm, with uniform particle size distribution.

### TECHNICAL PARAMETERS

Model	JG-IA	Capacity	Max 50ml/time, Continuous increase samples
Power Supply	380V	Max pressure	256Mpa(37120PSi)
Pressure device	Hydraulic System	Max pressure stroke	170mm
Sample tube	Stainless steel	Pressure plate speed	6.8mm/s
Pressure tank size	Φ25*150mm	Dimensions	555*600*1170mm

## SCIENTZ-150 High Pressure Homogenizer

HIGH PROCESSOR HOMOGENIZER

Patent Number: ZL200910099490.4

HIGH PRESSURE HOMOGENIZER 8435 High pressure homogenizer using the material in the special role of plunger into the valve which it is adjustable pressure, after a certain width limiting slot (work area), transient voltage loss of material at high velocity (1000-1500 M / sec)...

### TECHNICAL PARAMETERS

Maximum working pressure	1200bar/120Mpa/17400PSi
Maximum design pressure	1500bar/150Mpa/21750PSi
Maximum capacity	12L/h,25L/h two models machine
Minimum capacity	30ml
Cooling	Built-in cooler
Motor Power	1.5KW/380V/50Hz
Dimensions	L800*W460*H450mm
Weight	120Kg



NOTE: For emulsification a ball valve is suggested, while for crushing, an impingement valve is desirable. The low-temperature cooling circulation system is suggested for choice.

## SCIENTZ-207A High pressure homogenizer

Scientz-207A EHV Homogenizer Uses the high-pressure energy generated by the servo motor power to release the material instantaneously through the slits to break, homogenize and emulsify the material under the action of high shear, cavitation and collision effects, Decentralized effect, and maintain a constant pressure working condition. Material particle size can be uniformly refined to 100nm or less, the fragmentation rate of more than 95%, can be used for fat emulsion, liposomes, cosmetics, lipid nanoparticles, nano suspension, fermenter sample processing, and bioengineering laboratory, medicine Plant and other large-scale processing of E. coli, yeast and other samples of the broken, biological engineering and bio-pharmaceutical industries such as R & D and production of standard equipment can also be used for dairy products, food and beverage, fruit juice, pharmaceuticals, biological and other industries for emulsification, Homogenization treatment. The machine has a built-in cooling circulation system, which directly cools the homogenized head. All materials contacting the material pipe are 316L stainless steel. And the optional homogeneous valve, the product has the pressure, small size, light weight, easy to operate, intuitive display, high efficiency, a large sample size and so on. Has applied for invention patents and utility model patents.



### FEATURES

- The design of homogeneous pressure 0~207Mpa arbitrarily adjustable to meet nano-pharmaceutical customer needs;
- The minimum sample handling capacity 15ml;
- The key components used in Germany, Japan imported, long service life;
- The host power used in Japan imported servo motor to provide power, stable and reliable performance, long service life.
- All the materials in contact with the material with 316L stainless steel, the pipe part of the mirror effect of polishing to prevent the sample residue; in line with food and drug requirements
- Automatic injection, continuous work, no exhaust;
- Using physical homogenization method, no material residue;
- With seals removal special tools to facilitate replacement;
- Simple operation, maintenance services more convenient, cost-effective;
- Pressure, temperature sensors using the German brand pressure sensor optional thermostat bath
- Built-in cooler configuration cooler, do not consume materials, control homogeneous temperature
- Historical data storage, query
- With temperature alarm and automatic protection
- Real-time pressure and temperature curve display

### TECHNICAL PARAMETERS

The maximum working pressure	1800bar / 180Mpa / 26100psi pressure adjustable
The maximum design pressure	2070bar / 207Mpa / 30015psi
Maximum processing capacity	15 L / H (250ml / min)
Minimum capacity	15ml
Material residue 0ml	No(0ml No residue)
Motor power	3.0Kw / 380V / 50Hz
Dimensions	L1070*W340*H460mm
Weight	100KG
Maximum feed particles	100 microns
Flow control Inverter control	Adjustable flow
Display	Using PLC control and 7" touch display

## GJ-1000 High-Pressure Gas Gene Gun

GENE GUN

Patent Number: ZL011 05512.X 200630105830.7

Gene gun technology (particle bombardment) is a kind of all-new gene-delivery technology, it will be the size of a micron, gold or a nucleic acid of tungsten particles accelerated to the required speed, thus genes into the cells, tissues or organs. Get instant stability and high efficient expression, transformation. Has the characteristics of rapid, simple, safe and efficient.

- A simple, rapid and flexible, a variety of cell types
- Help the instantaneous expression and stable expression
- Only a small amount of DNA and cells, no carrier DNA
- To common import, for large fragment DNA plasmid unlimited
- In vivo and in vitro transformation and high specificity
- Bombardment ventricular unique round transformation, removable, convenient cleaning and disinfection;
- Material use cost low, every gun in addition to the high pressure gas costs 3 USD less.
- High repeatability
- Other methods could not be completed, with special growth need cell transformation
- Uniform particle distribution
- The biggest control experimental process

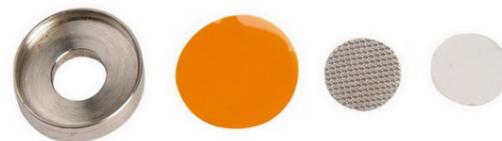
### APPLICATION AREA

- Animals: tissues (skin, organs), cells, organs, etc
- Plants: living plants, leaves, or other plant tissues
- Yeast, bacteria, and other microorganisms
- Gene expression research
- Agricultural biotechnology and crop improvement
- Plants vaccines



### SYSTEM STANDARD CONFIGURATION

Host, vacuum pump, 1000 gun dissipation (3.5/4.5/7Mpa ruptured membrane, carrier film, stainless steel mat, 2 bottles gold powder, 1 bottle of tungsten powder)



Target Region	(big) 40cm <sup>2</sup>
Pressure range	3-12MPa
Target Type	Animals: cell and organ culture Plants: The smaller of the whole plants, cell culture, explant, yeast, bacteria and other micro-organisms, chloroplast, mitochondria
Voltage	220V/110V
Gas	Helium or nitrogen (helium is more optimized)
Metal Particle	Φ0.8-1.5μm

## SJ-500

PORTABLE GENE GUN

Portable gene gun is a convenient portable equipment, can be fast direct in situ for cell gene transfer. The system through the helium pressure adjustable, to drive in a small plastic tube wall package has a DNA, RNA, or other biological materials of gold particles, it directly into the cell, make transgenic work become more flexible in terms of operation, simple.

### FEATURES

- Portable, can be flexible for genetically modified (gm) in vitro experiment
- Low noise, high repeatability, convenient living animals
- Other methods could not be completed, with special growth need cell transformation
- Shooting area is small and uniform particle distribution, can into different sizes of receptor, guarantee the transformation efficiency
- A simple, rapid and flexible, a variety of cell types
- Help the instantaneous expression and stable expression
- Only a small amount of DNA and cells, no carrier DNA
- To common import, for large fragment DNA plasmid unlimited

### APPLICATION AREA

- Animals: any exposure to gene gun outside the tissue (skin and organs), cell, organ, etc
- Plants: the field and greenhouse plants explant
- Yeast, bacteria and other microorganisms
- Gene expression studies
- Agricultural biotechnology and crop improvement
- Plant vaccine
- Organelles, chloroplasts and mitochondria



### SYSTEM STANDARD CONFIGURATION

Gene gun, special gas pressure reducing valve and hose, sample device, cutting machine, Magazine, imported nylon pipe 50 feet 2 package, 2 bottles of gold powders.

### TECHNICAL PARAMETERS

Experimental conditions	In situ, in vitro, in vivo, from the body
Target region	(small) 2cm <sup>2</sup>
Pressure range	0.5-5MPa
Target type	Animals: any organization (skin, organs) exposure to gene gun; cells, explant and organ culture Plants: Field and greenhouse use, plant cell culture and explant, yeast, bacteria, other microbes
Voltage	9V (can shooting 1000 times)
Gas	Helium or nitrogen
Metal particle	Φ0.8-1.5μm
Bombardment way	Magazine sample points directly or nylon

## SCIENTZ-2C Perforator Electric

Patent: 200630105829.4

Electricity transformation can be used to putting the DNA into the state of bacteria, animal and plant cells, yeast cells. Relative chemical method, electric reforming process can obtain higher efficiency. This method is better than other methods to get repetitive more, easy to operate and save time, import of high efficiency and has become an indispensable basic molecular biology technology.

The instrument integration of the whole machine design, simple operation, direct display, microprocessor control pulse discharge adopts the man-machine dialogue interface, the operation is simple, intuitive, and refinement of the capacitor and resistor set range, the cell electroporation experiment under the condition of associated with a wider range of choice.



### FEATURES

- Integration of the whole machine, simple operation, direct display
- The microprocessor control of pulse discharge
- The log storage
- Unlimited custom program storage
- Simple operation, short conversion time
- High conversion efficiency
- repeat ability

### APPLICATION AREA

- Electricity conversion of bacteria, yeast and other microorganisms
- Mammalian cell transfection
- Plant tissue and the protoplast of transfection
- Cell hybridization, fusion, gene delivery
- Import the marker gene, tags, instructions
- Import the function of the specific gene were studied
- Import drugs and other molecules such as Protel

### TECHNICAL PARAMETERS

<b>Model</b>	Scientz-2C	<b>Resistance</b>	50, 100, 150, 1600, -∞total 30 grades
<b>Pulse form</b>	Exponential decay	<b>Operating system</b>	Microcomputer control
<b>High Output voltage</b>	400-2500V	<b>Output waveform</b>	With RC time constant of the exponential decay of wave
<b>Low output voltage</b>	50-450V	<b>Dimension</b>	36.8*31.6*22.9(cm)
<b>High voltage capacitor</b>	1, 5, 6, 25, 30, 31UF	<b>Weight</b>	10.5Kg
<b>Low voltage capacitor</b>	100UF,125UF,150UF...1675UF,one grades of 25UF	<b>Packing size</b>	480*420*280mm

## CRY-3B SYNCRETIZE ELECTRIC

CRY-3B Syncretize Electric suitable for cell hybridization and cell fusion and direct observations can be made under inverted microscopes. It has a widespread application in the research on microorganism, animal medicine and bio-engineering. It provides safety, ease of use, and efficiency as compared with the conventional method. All types of even electrode and needle electrode are

### FEATURES

- Features: both cell electrofusion and electroporation capabilities
- Flexibility: have a wide range of voltage and pulse time
- Fast and efficient, simple and quickly complete post-processing
- process cell arrangement, fusion, fusion, only a few seconds
- LCD touch display operation
- Data setting easy and quickly



### TECHNICAL PARAMETERS

AC Electric Field Parameters	
<b>Bunchy pulse voltage</b>	Peak-peak value 0-58V(0-±29V), adjustable continuously
<b>Bunchy pulse frequency</b>	30KHz-3000KHz adjustable
<b>Gate time</b>	10-1000 um, 1 us increasing decline, adjustable continuously
DC Field Parameters	
<b>Square wave fusion pulse voltage</b>	5-600V adjustable(electrode distance)1.0mm electric voltage field reach 6000V/cm.
<b>Square wave fusion pulse range</b>	5-5000 - us, 1 us increasing decline, adjustable continuously
<b>Fusion (square wave) pulse number</b>	1-9 pcs
<b>With fusion flat electrode</b>	Polar distance 0.5mm, optional electrode in the table below
<b>Net weight</b>	9.22Kg
<b>Packing size</b>	450*370*290mm

### APPLICATION AREA

- Cell fusion (the fusion process can be observed under inverted microscope)
- Nuclear transfer
- Embryo operation
- Hybridoma generation
- Plant protoplast fusion
- The chicken embryo genes into inside an egg
- Live gene/drug import

#### Optional Microscope Slide Electrode:

<b>Model</b>	1-0.5	1-1.0	1-2.0	1-3.2
<b>Electrode distance</b>	0.5mm	1.0mm	2mm	3.2mm
<b>Volume</b>	20μL	40μL	80μL	700μL
<b>Voltage range</b>	0-600V DC			
<b>Maintenance</b>	Gentle cleanser, ethanol or ethylene oxide sterilization			

## HYBRIDIZATION OVEN

### TECHNICAL PARAMETERS

Model	LF-I	LF-III	LF-IIIA
<b>Temperature range</b>	Ambient Temp+5-100°C	Ambient Temp+5-100°C	Ambient Temp+5-100°C
<b>Temperature Accuracy</b>	±0.5°C	±0.5°C	±0.5°C
<b>Temperature error</b>	±0.03°C	±0.03°C	±0.03°C
<b>Display resolution</b>	01°C	01°C	0.1°C
<b>Temperature equilibrium time</b>	<20min	<20min	<20min
<b>Rotation speed</b>	6.5±0.5r/min,Fixed	5-20r/min,Adjustable	6- 25r/min,Adjustable
<b>Continuous working time</b>	24 hour	24 hour	24 hour
<b>Hybrid tube max. number</b>	6 pcs	6 pcs	6 pcs
<b>Shake base bottom</b>	/	YES	YES
<b>Frequency</b>	/	0-33Hz	0-33Hz
<b>Amplitude</b>	/	0-1mm	0-1mm
<b>External dimension</b>	450*90*370mm	450*390*400mm	440*480*430mm
<b>Internal dimensions</b>	340*220*210mm	340*220*220mm	340*220*220mm
<b>Accompany hybrid tube</b>	35*240mm	35*240mm	35*240mm
<b>Optional hybrid tube</b>	35*150mm, 35*300mm	35*150mm, 35*300mm	35*150mm, 35*300mm
<b>Display</b>	/	Digital	LCD
<b>Voltage</b>	/	Digital	LCD
<b>Net weight</b>	21Kg	22Kg	23Kg

Hybridization Oven is an ideal equipment in modern laboratory using hybrid technology, can instead of plastic bags and water bath shaking table, and avoid cross bag breakage pollution danger. This machine is controlled by microchip and hot air convection technology, provides the accurate temperature control and constant temperature environment. Furnace air circulation device design is unique, fast heating, uniform. This makes the Northern and Southern hybridization experiment ideal hybrid system. At the bottom of it there is a rocking base, placed at the same time also can be applied to such as hybrid bags, and other strict incubation experiment.

### FEATURES

- Microcomputer controller provides precise temperature control
- Rapid increase of temperature
- Pipe rotation
- Hybrid tube easy loading and unloading
- Internal use of anti-corrosion, mirror stainless steel materials
- Double glass door design, effectively prevent radiation
- Can shake at the bottom of the base, multi-usage
- Less chance than oscillating water pollution
- Sealing high



## SCIENTZ03-II

UV FIXER

SCIENTZ03 - II UV Fixer is a kind of multi-purpose 254 nm uv radiation system, nucleic acid is mainly used for cross-linking on the membrane. Can also be used for the DNA agarose gel cutting, RecA mutation screening, pyrimidine dimer of some restriction enzyme digestion, UV sterilization eliminate PCR pollution and so on. In uv sterilization, polymer processing, etc, also has application value.

### FEATURES

- Microprocessor control, to provide accurate UV dosage, LED display
- Irradiation units can through time or energy (Joules/cm<sup>2</sup>) is defined
- Draw-out type ultraviolet irradiation system, easy operation
- Ultraviolet security Windows and security door lock design, can protect the safety of use
- Maximum exposure area (88 cm<sup>2</sup>)
- Two types of operation mode, the uv energy model, time model
- To turn it off without losing information
- Localization LCD display, can touch the keyboard
- UV block Windows, a large stainless steel UV exposure trap

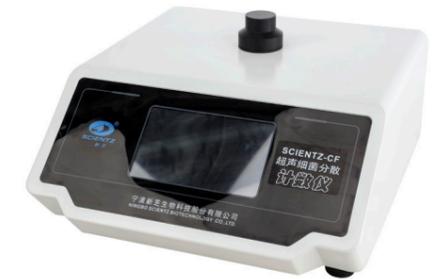


### TECHNICAL PARAMETERS

UV Wavelength	254 nm (optional 365nm,312nm provided)
Exposure Time And Measuring Range	0-999.9 minutes, power 60W
Exposure Time And Measuring Range	0-99.99 J(joule)
UV Radiation Energy	can reach max. 5mw/cm <sup>2</sup>
UV Source	10W light tube×5 Information lossless under turning off
Energy Sets and save	9 exposures display on liquid crystal screen in chinesization
Time Setting And Save	9 exposures Touchable keyboard
UV Exposure Manual Set Energy	UV shaded window
UV Exposure Manual Set Time	Wide stainless steel UV
External Dimension	360mm*340mm*310mm
Exposure room dimension	340mm*260mm*150mm

## SCIENTZ-CF Ultrasonic bacteria dispersion counter

Ultrasonic bacteria dispersion counter is a bacterial solution pretreatment instrument based on the principles of ultrasonic dispersion and photoelectric turbidity detection. The instrument can quickly disperse easily clustered bacteria such as Mycobacterium tuberculosis, and simultaneously measure the turbidity of Mycobacterium tuberculosis, give the volume of sample liquid needed to dilute to the target Mycobacterium turbidity, and count the number of colonies per unit volume. Perform preliminary calculations. The instrument is a good helper in the fields of drug susceptibility testing, drug testing, bacterial sorting, and strain preservation. It can greatly reduce the labor intensity of manual dispersion and dilution of bacterial liquid, improve the efficiency of bacterial liquid processing, and standardize experimental operations. It can be effective Reduce the risk of microbial contamination.



### FEATURES

- High efficiency: ultrasonic dispersion, turbidity detection and dilution volume calculation are completed in one step
- Simple operation: put in the sample, one-click operation, save 90% operation time
- Intelligent: Intelligent program control is dispersed evenly, real-time reading to avoid human error
- High safety: closed experimental environment, reducing the risk of environmental pollution and personnel infection

### TECHNICAL PARAMETERS

Model	SCIENTZ-CF
Ultrasonic transducer power	100W
Ultrasonic transducer frequency	40kHz
Total number of ultrasound	0 ~ 99 seconds can be set
Ultrasound working time	0 ~ 99 seconds can be set
Ultrasound interval time	0 ~ 99 seconds can be set
Max's turbidity display accuracy	0.01MCF
Max's turbidity measurement range	0.00 ~ 6.00MCF
Microwave turbidity detection linear range	0.20 ~ 4.00MCF
Cuvette sample cell capacity	1.5 ~ 4ML, step width: 0.01ML
Maxwell Turbidity Calibration	Multi-point calibration, up to 6 points
Dilution function	Automatic generation of dosing volume
Cuvette Features	Fluorine Silicone Gasket
Calibration solution provided by	China Academy of Metrology
Storage temperature conditions	-20 ~ 50 °C
Working temperature conditions	5 ~ 35 °C
Power-off data saving	50 groups
Power parameter	220V / 50HZ
Maximum power consumption	100W
Instrument net weight	3.9kg
Appearance size	L270mm * W292mm * H156mm

## NP-2032 Auto Nucleic Acid Purification System

NP-2032 is a fully automatic nucleic acid extraction instrument launched by Ningbo Scientz based on the needs of clinical large-scale genetic analysis. This machine uses magnetic bead separation technology, according to the selection of the appropriate kit to separate and purify nucleic acids in multi-source samples (such as blood, animal and plant tissues, cells). The entire instrument has stable performance and low noise, and the operation is automated, fast and simple. It can simultaneously purify 32 samples. A powerful "assistant" in clinical genetic testing and molecular biology laboratory research



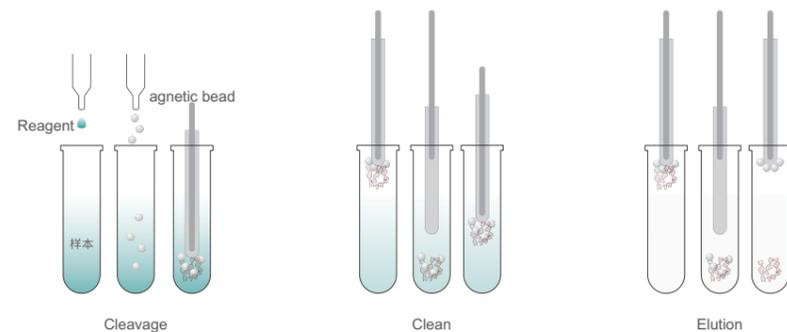
- Flexible control
- Large screen full color display, touch operation, easy to use  
Customizable shortcut program, one-click startup  
Humanized observation window and display screen design, easy to operate

### TECHNICAL PARAMETERS

Model	NP-2032
Sample throughput	1 ~ 32
Processing volume	30-1000ul
Magnetic bead recovery rate	> 95%
Number of magnets	32
Purification sensitivity	Positive detection rate of 100 copies sample > 95%
Purify the difference between pores	CV < 3%
Consumables	96 deep well plate + magnetic rod sleeve
Cracking temperature	Room temperature to 120 °C
Elution temperature	Room temperature to 120 °C
Concussion mixing	
Operation interface	7-inch touch screen, 8 shortcut program files
Internal program Preset	8 programs, can store 100 programs
Program management	New, edit, delete, save as, etc.
Instrument Expansion Interface Standard	USB
Lighting System	Yes
Disinfection	UV disinfection
Exhaust method	Fan
Data storage can be stored	built-in SD card
Size	422x422x470 (mm)

### WORKING PRINCIPLE

Use the magnetic rod on the magnetic rod holder in the machine to move the magnetic beads with adsorbed nucleic acids to different reagent tanks, and then use the magnetic rod sleeve placed on the outer layer of the magnetic rod to repeatedly move the liquid up and down to mix it evenly. Lysis, nucleic acid adsorption, washing and elution, to obtain the purest nucleic acid.



### FEATURES

- Fast and efficient
- Purified nucleic acid purity can meet the needs of various downstream experiments  
Nucleic acid recovery rate > 95%, magnetic bead recovery rate > 95%  
Total extraction of 32 samples can be completed in about 20-40min (depending on reagents)

- Safe and reliable
- Fully automatic operation with disposable consumables to reduce personnel contact  
Built-in regular UV disinfection, efficient cleaning  
Exhaust fan to effectively avoid aerosol pollution  
Prevent door opening alarm and automatically stop the movement structure during operation to ensure safe operation

- Strong versatility
- Multi-speed and multi-module for selection, and can store 100 programs to meet different customer requirements  
Custom lysis and elution temperature  
Suitable for different samples, such as animal and plant tissues, serum, plasma, etc.

## ULTRASONIC CLEANER

CE PATENT NUMBER: ZL201220115206.6

Ultrasonic Cleaner is designed to apply a cavitation effect produced in the cleaning liquid by means of ultrasonic waves. It can accelerate dissolution and decomposition of dirty and grease from parts being cleaned and has a perfect cleaning effect on blind hole and interior holes of the container. Being fast in cleaning, efficiency, undamageable on the surface and reducible in labour intensity, it has wide applications in cleaning precision machinery parts, hydraulic parts, pneumatic parts, valve, brake, bearings, bearing scrapers, oil nozzle, oil pump, carburetor, fuel injectors and other electronic components, circuit boards, semiconductor silica wafers, plating, optical lenses, audio heads, polyester filter, chemical fiber spinning nozzle, spinning plates, etc., including laboratories, and other various industries cleaning. There are machines with different functions such as temperature-increasing, power-adjustment, dual-frequency, high-frequency (59K, low noise and suitable for precision cleaning), swept-frequency for users to choose from.

On the basis of the international standards IEC60886.61102.61161, the company manufactures series of intelligently automatic ultrasonic cleaning machines and airing cleaning machines, including the following types (desktop type, input type, split, single-slot, dual-slot, multi-slot) All major and key parts are imported, thus making the circuit more excellent, work more reliable, efficiency greater, noise much lower and cleaning more effective.

### FEATURES

- Large-screen LCD display
- Display the parameters setting menu
- Adjustable power :40%-100%
- 1-999 min total working time setting
- Equipped with a special stainless steel basket, reduce sound cover
- The shell and cover are made by stainless steel
- The equipment controlled by Single-chip controller
- The latest working parameters can be stored in memory after power-off
- Digital setting ultrasonic cleaning time
- Working time countdown display
- Display actual temperature of the cleaning tank
- Temperature setting Range: room temperature--80°C



DTD Power Adjustable Heating Series

## OLD DTD Series ULTRASONIC CLEANER

### TECHNICAL PARAMETERS

Model	Inner tank (mm)L/W/H	volume (L)	Frequency (KH)	Power (W)	Heating power(W)	Drainage
SB-3200DTD	300*155*150	6	40	180	400	/
SB-5200DTD	300*240*150	10	40	240	800	√
SB-5200DTD	300*240*150	10	40	360	800	√
SB-4200DTD	300*240*200	14.4	40	400	800	√
SB25-12DTD	500*300*150	22.5	40	500	1000	√
SB25-12DTD	500*300*150	22.5	40	600	1000	√
SB-800DTD	500*300*200	30	40	800	1000	√

Notice :With the heating function of the ultrasonic cleaner, after heating the temperature than the actual display temperature 2-8 °C for thermostatic ultrasonic , optional ultrasonic thermostatic ultrasonic cleaner .

## NEW DTD Series ULTRASONIC CLEANER

ULTRASONIC CLEANER



### FEATURES

- Equipped with a special stainless steel basket, reduce sound cover
- The shell and cover are made by stainless steel
- The equipment controlled by Single-chip controller
- The latest working parameters can be stored in memory after power-off
- Digital setting ultrasonic cleaning time
- Working time countdown display
- Display actual temperature of the cleaning tank
- Temperature setting Range: room temperature--80°C
- Timing Range: 1-99 minutes adjustable

### TECHNICAL PARAMETERS

Model	Inner tank (mm)L/W/H	Volume L	Frequency KHz	Ultrasonic power W	Heating power W	Temperature adjustable °C	Time adjustable min	Drainage	Rack
SB-100DTD	300*150*100	4.5	40	100	200	RT+5-80	1-99	/	√
SB-120DTD	240*140*100	3	40	120	200	RT+5-80	1-99	/	√
SB-120DTD	240*140*150	5	40	120	200	RT+5-80	1-99	/	√
SB-3200DTD	300*155*150	6	40	180	400	RT+5-80	1-99	/	√
SB-5200DTD	300*240*150	10	40	240	800	RT+5-80	1-99	√	√
SB-5200DTD	300*240*150	10	40	360	800	RT+5-80	1-99	√	√
SB-4200DTD	300*240*200	14.4	40	400	800	RT+5-80	1-99	√	√
SB25-12DTD	500*300*150	22.5	40	500	1000	RT+5-80	1-99	√	√
SB25-12DTD	500*300*150	22.5	40	600	1000	RT+5-80	1-99	√	√
SB-800DTD	500*300*200	30	40	800	1000	RT+5-80	1-99	√	√
SB-1000DTD	600*300*300	54	28	1000	3000	RT+5-80	1-99	√	√
SB-1200DTD	600*400*300	70	28	1200	4000	RT+5-80	1-99	√	√
SB-1500DTD	600*500*300	90	28	1500	4000	RT+5-80	1-99	√	/
SB-1800DTD	600*600*300	108	28	1800	4000	RT+5-80	1-99	√	/
SB-2000DTD	User offer size	117	28	2000	6000	RT+5-80	1-99	√	/
SB-3600DTD	User offer size	207	28	3600	8000	RT+5-80	1-99	√	/

Notice :With the heating function of the ultrasonic cleaner, after heating the temperature than the actual display temperature 2-8 °C for thermostatic ultrasonic , optional ultrasonic thermostatic ultrasonic cleaner .

## DTY Multi-frequency ultrasonic cleaning machine

ULTRASONIC CLEANER  
PATENT NUMBER: ZL200920114749.3

The design of the equipment is based on the users' requirement of ultrasonic power, ultrasonic frequency, ultrasonic time. Having the following functions: cleaning, decentralized extraction, nano-preparation, chemical reactions, degassing, defoaming, emulsification, mixing etc.. It has broken the traditional cleaning pattern by the single-frequency washing machine. Through multi-frequency conversion 25KHz, 28KHz, 40KHz and 59KHz, the whole process of perfunctory washing, washing in clean water, precision cleaning and rinse is complete within a single machine, giving a thorough cleaning to the washing objects with the result that no fine and stubborn dirt is left anywhere.

### FEATURES

- Background light LCD screen
- Microcomputer memory setting parameters
- The ultrasonic working time set up independently: 0-99 minutes adjustable
- Multi-frequency conversion: 25KHz, 28KHz, 40KHz, 59KHz
- Display working countdown time
- Display actual temperature of the cleaning tank
- Temperature setting range: Ambient Temperature-80°C
- Timing range: 0-999 minutes adjustable
- Equipped with a special stainless steel basket, reduction sound cover
- The shell and cover are made of stainless steel
- The equipment controlled by single-chip controller
- With Drainage function

### TECHNICAL PARAMETERS

Model	Inner tank (mm)L/W/H	Volume L	Frequency KHz	Ultrasonic power W	Heating power W	Rack	Drainage
SB-300DTY	300*240*150	10	25	300	800	√	√
SB-400DTY	300*240*200	15		400	800	√	√
SB-500DTY	500*300*150	22.5	28	500	1000	√	√
SB-600DTY	500*300*200	30	40	600	3000	√	√
SB-1000DTY	600*300*300	54	59	1000	4000	√	√
SB-1200DTY	600*400*300	70		1200	5000	√	√



Notice: With the heating function of the ultrasonic cleaner, after heating the temperature than the actual display temperature 2-8 °C for thermostatic ultrasonic, optional ultrasonic thermostatic ultrasonic cleaner.

## DTS Series of Dual-Frequency Ultrasonic Cleaning Machine

PATENT NUMBER: ZL200920114749.3

### FEATURES

- Interchangeable use of two kinds of frequencies: 25KHz, 40KHz
- Digital display and setting ultrasonic cleaning time
- Display working countdown time
- Display actual temperature of the cleaning tank
- Temperature setting range: Room temperature--80°C
- Timing range: 1-99999 minutes adjustable
- Equipped with a special stainless steel basket, reduce sound cover
- The shell and cover are made by stainless steel
- The equipment controlled by Single-chip controller
- The latest working parameters can be stored in memory after power-off

### TECHNICAL PARAMETERS

Model	Inner tank (mm)L/W/H	Volume L	Frequency KHz	Ultrasonic power W	Heating power W	Drainage
SB-3200DTS	300*155*150	6	25/40	180	400	/
SB-5200DTS	300*240*150	10	25/40	200	800	√
SB-5200DTS	300*240*150	10	25/40	250	800	√
SB-5200DTS	300*240*150	10	25/40	300	800	√
SB-4200DTS	300*240*200	14.4	25/40	400	800	√
SB25-12DTS	500*300*150	22.5	25/40	500	1000	√
SB25-12DTS	500*300*150	22.5	25/40	600	1000	√
SB-800DTS	500*300*200	30	25/40	800	1000	√

The new dual-frequency ultrasonic cleaner has a pulse time function, dedicated to degassing



## SBL SERIES THERMOSTATIC ULTRASONIC CLEANER

SBL ultrasonic constant temperature cleaning machine is a special instrument specially developed for the needs of constant temperature, ultrasonic chemical reaction, chemical synthesis, biopharmaceutical synthesis, biological material degradation, reorganization, traditional Chinese medicine extraction, temperature controlled cleaning of precision instrument components. The instrument is composed of ultrasonic, imported closed fluorine-free compressor, 304 stainless steel heater, 304 stainless steel tank, microcomputer control, large screen liquid crystal display, drain valve, basket, stainless steel cover and other components.

The instrument is easy to use, and the ultrasonic power, ultrasonic time, and reaction temperature can be set. Working parameters, power-off memory, and temperature accuracy of ± 2 °C are unattainable by ordinary ultrasonic, and can meet different experimental requirements of experimenters.



### TECHNICAL PARAMETERS

Model	Inner tank (mm)L/W/H	Fre (KHz)	(L)	Tem (°C)	Ultra power (W)	Heating power (W)	Cooling (W)	Timer (min)	Manual/ Auto/Inlet/ outlet	Cover/ basket
SBL-10DT	300*240*150	40	10	5-90	360	350	250	1-999	Manual	√
SBL-15DT	300*240*200	40	14	5-90	480	500	280	1-999	Auto	√
SBL-22DT	500*300*150	40	22	5-90	720	800	300	1-999	Manual	√
SBL-30DT	500*300*200	40	30	5-90	840	1200	350	1-999	Manual/Auto	√
SBL-54DT	600*300*300	40	54	5-90	1000	2800	500	1-999	Manual/Auto	√
SBL-72DT	600*400*300	40	72	5-90	1200	3800	750	1-999	Manual/Auto	√
SBL-90DT	600*500*300	40	90	5-90	1500	4800	1125	1-999	Manual/Auto	√
SBL-108DT	600*600*300	40	108	5-90	1800	6000	2250	1-999	Manual/Auto	√

## SCIENTZ-160VSY

Fully Automatic Laboratory Glassware Washer Disinfector



SCIENTZ-160VSY is an efficient aid for the cleaning and thermal disinfection of all types of surgical instruments, dental handpieces, laboratory glassware etc.. Ideal for use in hospitals, medical centres, dental offices and laboratories. It excludes the professional risk due to handling infected instruments.

This washer disinfectors is designed and constructed to comply with the European EN ISO 15883, UK HTM 2030 and WRAS guidelines on contamination.

### FEATURES

- All-dimensional effective spray cleaning the objects inside and outside to ensure a best cleaning and disinfection result.
- Multitronic control system featuring seven standard programmes(pre-wash,super quick, fast, rinsing, economy, standard, powerful washing) and one custom programme slot
- With auto-diagnostic checking that constantly monitors and displays current cycle status and alarms
- Buzzer signals end of program and program failure check
- Easy to use, the LCD touch control system can simplify the end user job when operating the machine.
- Direct basket coupled system to water feed for efficient water usage, and maximum basket flexibility for load to load
- Automatic contamination discharging: double pump structure, double stainless steel filter
- Automacit brighter agent dispenser and self-alarm system.
- Double wall construction and thorough insulation reduce electricity consumption and heat loss.
- Standard steam condenser eliminates vapours
- Heavy washing pump ensures high flow rate combined with effective spray pressure.
- Inner cabinet, washing arms and tank filters made of high quality AISI 316L stainless steel.
- Self cleaning tank with rounded edges.
- Detergent auto-supply machine is available
- Large capacity of water softener for a continuous supply of softened water available.

### TECHNICAL PARAMETERS

Inlet water pressure	0.04 – 1.00 Mpa
Water pressure in chamber	0.3 – 0.4 Mpa
Compound vacuum filter	minimum size $\geq 10\mu\text{m}$
Maximum Power	$\leq 1760\text{W}$
Noise	$\leq 50\text{dB}$
Inner chamber size	160L
Exterior size	590×595×850 mm
Net weight	$\leq 43\text{kg}$
Standard water inlet filter Porosity	96%, filtration speed: 20-85m <sup>3</sup> / h Laboratory utensil cleaning rack 18 beakers and 20 burettes each time

## Constant Temperature Water (oil) Bath With Digital Control

Circulating water (oil) baths are equipped with a microprocessor intelligent control system. With circulating pump, it can let the heated liquid flow off from the tank and thus establish a second constant-temperature field. The main components used are imported and the performance is stable and reliable. It is widely used in research institutes, universities, electronic instruments, physics, chemistry, bio-engineering, medicine and health, life science, light industry and food, materials testing and chemical analysis etc. It can provide for users a working environment where cold or heat was controlled accordingly. As a result, the temperature is kept evenly.



## SC Series Constant water (oil) bath

### TECHNICAL PARAMETERS

Model	Temperature Range °C	Temperature Volatility °C	Display Resoluti on (mm <sup>2</sup> )	Tank size (mm <sup>3</sup> )	Tank size (mm)	Pump Flow	Tank cover size(mm <sup>2</sup> )	Drainage
SC-5A	Ambient+5~95	$\pm 0.05 \sim \pm 0.2$	0.1	240×140×140	150	0-20	130×130	√
SC-15	Ambient+5~100	$\pm 0.05 \sim \pm 0.2$	0.1	300×240×200	200	0-20	235×160	√
SC-20	Ambient+5~100	$\pm 0.05 \sim \pm 0.2$	0.1	500×300×150	150	0-20	310×280	√
SC-20B	Ambient+5~200	$\pm 0.05 \sim \pm 0.2$	0.1	500×300×150	150	13	310×280	/
SC-15B	Ambient+5~200	$\pm 0.05 \sim \pm 0.2$	0.1	300×240×200	200	13	235×160	/
SC-25	Ambient+5~100	$\pm 0.05 \sim \pm 0.2$	0.1	280×250×300	300	0-20	235×160	√
SC-30	Ambient+5~100	$\pm 0.05 \sim \pm 0.2$	0.1	400×330×230	230	0-20	310×280	√
SC-30B	Ambient+5~90	$\pm 0.05 \sim \pm 0.2$	0.1	$\Phi 300 \times 300$	300	6	$\Phi 150$	√

## DC Series Thermostatic Water(oil)bath (heating and cooling bath)

The series of Refrigerated thermostatic bath has adopted the latest international advanced CFC-free refrigeration system.The main components used are imported and the performance is stable and reliable. It is widely used in research institutes, universities, corporate quality control departments and industrial sectors relating to petroleum, chemical engineering, electronic instruments, physics, chemistry, bio-engineering, medicine and health, life science, light industry and food, materials testing and chemical analysis etc. It is used to put trial samples or newly-made products to a constant-temperature test.It can also be used as a heat source or cold source for a direct heating or cooling and auxiliary heating or cooling.



## FEATURES

- Using environmentally friendly CFC-free refrigeration technology to meet the requirements of environmental protection.
- Using high-quality full-enclosed air-cooled compressor cooling system, low noise
- Full-enclosed air-cooled compressor cooling system with thermal overload protection automatically
- With a power-off protection function, automatically delayed for three minutes
- Using 7" touch display, easy to understand working condition
- Easy to operate, can set the temperature quickly with soft button
- Intelligent PID automatically adjust control function
- Upper and lower temperature alarm can be set
- With over heat alarm system to ensure the safety apparatus
- Inner high-quality stainless steel material
- With external circulating pump, can be established the second constant temperature field outside the bath
- Cold liquid can be cited outside the tank, cooling the experimental container outside the bath
- Using analogue theory, automatic identify the difference between set temperature and the ambient temperature, to confirm whether a single heating or cooling heating work simultaneously to achieve the energy saving
- Using DC speed pump, 0-20L / min adjustable flow, head for 5 meters.

## TECHNICAL PARAMETERS

Model	Temperature range(°C)	Temperature Stability(°C)	Display Resolution(°C)	Tank size (mm³)	Head(m)	Pump flow (L/min)	Tank size(mm²)	Drainage
SDC-6	-5~100	±0.05	0.1	260*200*140	5	0-20	180*140	√
DC-1006	-10~100	±0.05	0.1	260*200*140	5	0-20	180*140	√
DC-2006	-20~100	±0.05	0.1	260*200*140	5	0-20	180*140	√
DC-3006	-30~100	±0.1	0.1	260*200*140	5	0-20	180*140	√
DC-4006	-40~100	±0.1	0.1	260*200*140	5	0-20	180*140	√
DC-0510	-5~100	±0.05	0.1	260*200*200	5	0-20	180*140	√
DC-1010	-10~100	±0.05	0.1	260*200*200	5	0-20	180*140	√
DC-2010	-20~100	±0.05	0.1	260*200*200	5	0-20	180*140	√
DC-3010	-30~100	±0.1	0.1	260*200*200	5	0-20	180*140	√
DC-4010	-40~100	±0.1	0.1	260*200*200	5	0-20	180*140	√
DC-0515	-5~100	±0.05	0.1	300*250*200	5	0-20	235*160	√
DC-1015	-10~100	±0.05	0.1	300*250*200	5	0-20	235*160	√
DC-2015	-20~100	±0.05	0.1	300*250*200	5	0-20	235*160	√
DC-3015	-30~100	±0.1	0.1	300*250*200	5	0-20	235*160	√
DC-4015	-40~100	±0.1	0.1	300*250*200	5	0-20	235*160	√
DC-1020	-10~100	±0.05	0.1	280*250*280	5	0-20	235*160	√
DC-2020	-20~100	±0.05	0.1	300*250*260	5	0-20	235*160	√
DC-3020	-30~100	±0.1	0.1	280*250*280	5	0-20	235*160	√
DC-0530	-5~100	±0.05	0.1	440*325*200	5	0-20	310*280	√
DC-1030	-10~100	±0.05	0.1	440*325*200	5	0-20	310*280	√
DC-2030	-20~100	±0.05	0.1	440*325*200	5	0-20	310*280	√
DC-3030	-30~100	±0.1	0.1	440*325*200	5	0-20	310*280	√
DCW-1015	-10~100	±0.05	0.1	280*250*220	5	0-20	235*160	√
DCW-2008	-20~100	±0.05	0.1	280*250*140	5	0-20	235*16	√
DCW-3506	-35~100	±0.1	0.1	260*200*140	5	0-20	180*140	√
DCW-3510	-35~100	±0.1	0.1	250*200*200	5	0-20	180*140	√
DCW-0506	6~100	±0.05	0.1	260*200*140	5	0-20	180*140	√
DCW-4006	-40~100	±0.1	0.1	260*200*140	5	0-20	180*140	√

## Low Temperature Cooling Machine

### FEATURES

- DLK series rapid temperature cycle pump, is no shrinkage mechanism of low temperature cold ring liquid circulation equipment. It has the cryogenic liquid, low temperature water-bath water provide the role. Combining rotating evaporator, vacuum freezing drying oven, recycling water type vacuum pump, UV spectrophotometer etc instrument constant temperature, the temperature of the chemical reaction multifunction homework and drug store.



### TECHNICAL PARAMETERS

Model	Volume	Temp. Range	Temp. Stability (°C)	Display	Drainage	Refrigerating capacity (20°C/w)	Voltage
DLK-1007	7 L	-10°C-Ambient	±2°C	LCD	YES	1020w	220V/50Hz
DLK-2007	7 L	-20°C-Ambient	±2°C	LCD	YES	1020w	220V/50Hz
DLK-4007	7 L	-40°C-Ambient	±2°C	LCD	YES	1680w	220V/50Hz
DLK-1010	10 L	-10°C-Ambient	±2°C	LCD	YES	1230w	220V/50Hz
DLK-2010	10 L	-20°C-Ambient	±2°C	LCD	YES	1230w	220V/50Hz
DLK-4010	10 L	-40°C-Ambient	±2°C	LCD	YES	1240w	220V/50Hz
DLK-1020	20 L	-10°C-Ambient	±2°C	LCD	YES	1480w	220V/50Hz
DLK-2020	20 L	-20°C-Ambient	±2°C	LCD	YES	1920w	220V/50Hz
DLK-4030	30 L	-40°C-Ambient	±2°C	LCD	YES	3700w	380V/4 lines

## CK Series Thermostatic Bath

### FEATURES

- With complete enclosed air-cooling compressor for refrigeration, low temperature thermostatic bath has outstanding advantages such as quick refrigeration and low noise.
- Refrigeration system is equipped with multi-purpose protection devices such as over heating, over current and so on.
- Temperature can be controlled by microcomputer, which can be operated simply, has alarming device for temperature under low temperature limit and over high temperature limit, and is equipped with PID automatic control.
- Use double windows in red and green, upper window displays measurement value in red, and lower window displays measurement value in green, both in LED.
- Intelligent microcomputer can adjust temperature setting allowance so that digital display distinguish-ability reaches 0.1°C.
- Special user PID can be adjusted.
- It has internal and external cycles, external cycle will discharge thermostatic liquid inside the bath, and establish No. 2 thermostatic bath, also it can discharge liquid outside as cooling or heating source, to lower (raise)temperature of external experimental vessels, and enlarge use scope.



CK Series Thermostatic Bath

**TECHNICAL PARAMETERS**

Model	Temperature Range (°C)	Volume (L)	Display Resolution (°C)	Pump Flow (L/min)	Drainage	Cooling power(0°C/w)	Voltage (V)
CK-4005GD	-40°C-200°C	5	±0.1	20	Yes	1322	220V/50Hz
CK-4007GD	-40°C-200°C	7	±0.1	20	Yes	2329	220V/50Hz
CK-4010GD	-40°C-200°C	10	±0.1	20	Yes	3610	220V/50Hz

**Automatic Ice Making Machine**

This machine especially suitable for laboratories, research institute, hospitals, schools etc, it also be used in supermarket food preservation, fishing refrigeration, medical applications, chemical, food processing and other industries.

**FEATURES**

- Using high-quality stainless steel shell, anti-corrosion and durable
- Using imports of CFC-free compressor, freon-free foam insulation box, good thermal insulation effect, energy-saving environmental protection
- Imported motor, computer chip, all process controlled by computer, with full of ice, water shortages, cold protection, Reliable control, low noise, smooth operation, a large quantities of ice, small and practical ice-shape, automatic ice-water separation



**TECHNICAL PARAMETERS**

Model	Ice Volume (kg/24h)	Ice weight (kg)	Dimension (L×W×H mm)	N.W(kg)	Condensation method	Water Consumption(L/H)
XB-20	20	10	300×493×547	32	Air-cooled	≤0.8
XB-30	30	10	300×493×547	34	Air-cooled	≤1.2
XB-40	40	15	380×543×722	40	Air-cooled	≤1.6
XB-50	50	15	380×543×722	40	Air-cooled	≤2.0
XB-70	70	25	548×611×883	57	Air-cooled	≤2.9
XB-85	85	25	548×611×883	57	Air-cooled	≤3.5
XB-100	100	25	548×611×883	58	Air-cooled	≤4.5
XB-130	130	45	500×612×945	62	Air-cooled	≤5.4
XB-150	150	55	635×611×945	70	Air-cooled	≤6.2

**HSC-2015L Desktop High-Speed Refrigerated Centrifuge**

In order to meet the needs of separation and sedimentation of low temperature samples, Scientz has launched a desktop high-speed refrigerated centrifuge (HSC-2015L). The compact HSC-2015L has the characteristics of reliable operation, ultra-low noise, high strength sealing, and fast cooling speed. And the rotor can be replaced according to the needs of different samples. The smallest centrifuge tube can reach 0.2 ml (4 \* PCR plate) and the largest centrifuge tube can reach 5 ml (12 \* 5ml). Quality products.



**FEATURES**

- Stable performance

Ultra-low noise operation, noise <60Db;

Strong cooling capacity, the maximum speed can also be maintained at 4°C;

Fast cooling speed, can be reduced from room temperature to 4°C in <15min

- Humanized design

Equipped with self-diagnostic system for faults (stall, over-temperature, self-locking of door cover, etc.), and interface prompt

Parameters can be changed at any time during operation without stopping;

Equipped with an emergency switch, which can also open the door cover in case of power failure;

Equipped with three types of rotors, which is convenient for customers to choose, and the airtight rotors can be removed as a whole

Static pre-cooling mode, when the lid of the centrifuge is closed and the set temperature is lower than the ambient temperature, the compressor will automatically start cooling;

- Reliable mechanical design

More stable and reliable micro-motor electronic lock (patent design);

The use of a two-stage shock absorption system structure (patented design) and imported motors to enhance the stability of the instrument and reduce noise

Unique patented motor waterproof design is adopted to increase the service life of the motor;

Adopt imported compressor, high stability, long service life and rapid cooling;

SOFT brake function to prevent resuspension and protect sensitive samples;

The centrifugal cavity is treated with a special process to have good corrosion resistance, durable and more beautiful

**TECHNICAL PARAMETERS**

Model	HSC-2015L
Maximum rotor capacity	24 × 1.5 / 2.0mL centrifuge tubes, 4 × PCR row tubes, 12 × 5mL (optional 5ML)
Maximum rotor capacity	plastic, metal, airtight
Relative centrifugal force	21.400 × g (15000rpm)
Temperature control range	-10 °C to 40 °C
Keeping temperature at high speed	4°C
Cooling speed	15 minutes from room temperature to 4 °C
Acceleration from zero to maximum speed	15 seconds (soft off), 45 seconds (soft on)
Time from maximum speed to zero	5 seconds (soft off), 45 seconds (soft on)
Speed	500-15000 in 100rpm increments
Centrifuge timing	1S to 99 minutes and 59 seconds
Maximum power / rated power	1200W / 500W
Dimensions (length x width x height)	385x608x318 (mm)

## The Characteristics of Freeze Dryer

N series freeze-drying machine is compact, with large-scale freeze dryer flexibility, less space, can handle more flexible samples, cost-effective. Suitable for small laboratory, and can choose a variety of configurations:

Common type: suitable for bulk materials, liquid and solid dry

Gland type: suitable for Schering bottled material drying, can achieve sample vacuum pressure package. Contains general type of use function.

Ordinary multi-manifold type: suitable for a variety of different materials, small freeze-dried, and can be linked to freeze-dried bottles, eggplant bottles, jars.

Grip multi-manifold type: Contains the function of ordinary multi-manifold type, can achieve the sample vacuum pressure package, to meet the vast majority of the laboratory technical requirements.

T-frame: for fungal ampoule tube package.



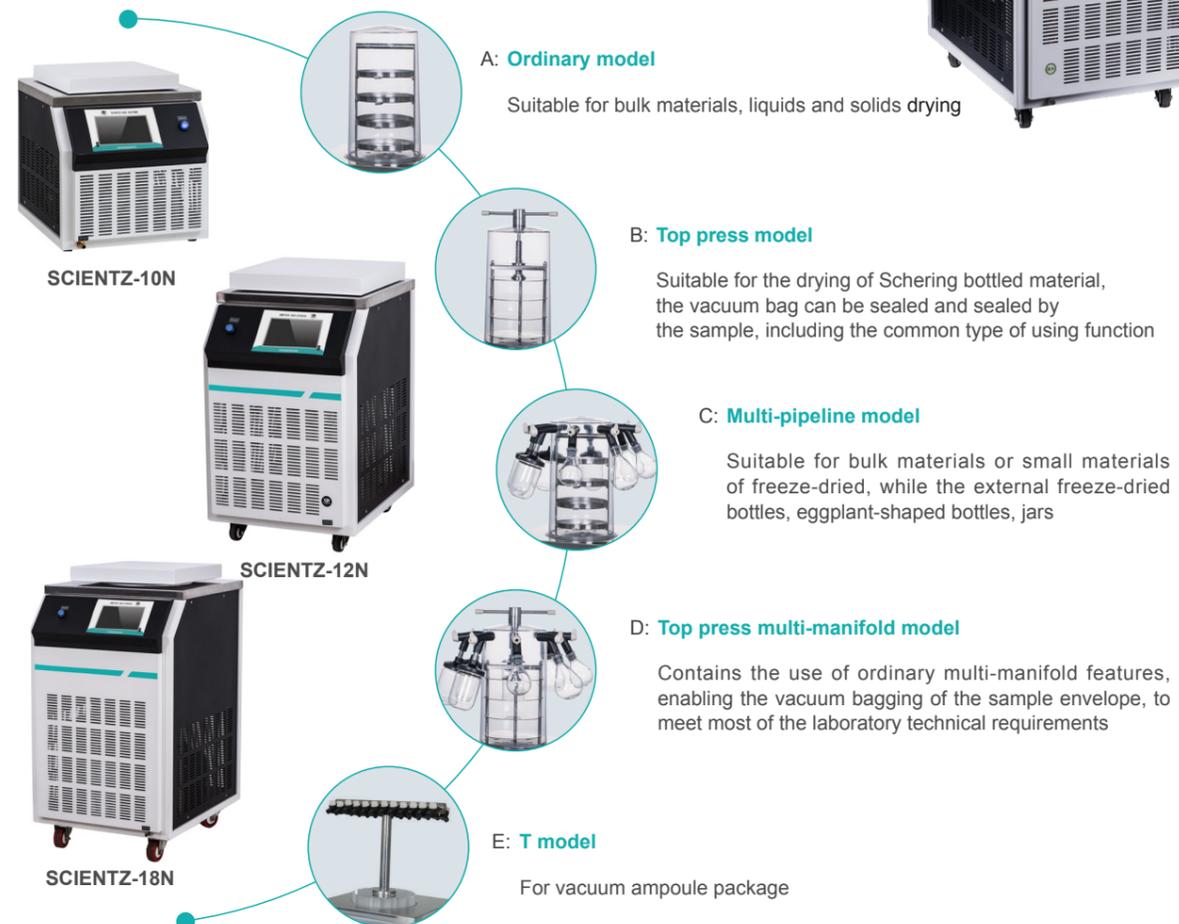
Historical curve



Control interface



U disk extraction data interface



### FEATURES

- The machine uses international brands Danfoss compressor refrigeration, refrigeration quickly, cold trap temperature is low.
- 7-inch true color touch LCD screen control system, easy to operate, and powerful.
- Industrial embedded operating system, ARM9 core control circuit design, 32M memory 128M FLASH, the operation response speed, large amount of stored data.
- The control system automatically saves the freeze-dried data, and can be real-time curve and historical curve in the form of view, the entire freeze-drying process clear.
- Drying room with a colorless transparent injection molding polycarbonate drying trap, corrosion-resistant, non-friable, non-adhesive, high transparency, strong sealing, the sample is clear and intuitive, can observe the freeze-drying of the whole product.
- Vacuum pump and host connection using international standard KF quick connector, simple and reliable.
- The machine can store multiple freeze-drying curve, and use U disk to extract data to the computer, with the host computer software in the computer to browse print and a variety of options.
- Equipped with inflatable valve, can be filled with dry inert gas.

### TECHNICAL PARAMETERS

Model	Scientz-10N				Scientz-12N				Scientz-18N				
	Ordinary	Top press	Ordinary multi-pipeline	Top-press multi-pipeline	Ordinary	Top press	Ordinary multi-pipeline	Top-press multi-pipeline	Ordinary	Top press	Ordinary multi-pipeline	Top-press multi-pipeline	
Dryer area(m <sup>2</sup> )	0.125	0.08	0.125	0.08	0.125	0.08	0.125	0.08	0.18	0.09	0.18	0.09	
Ability to capture water(Kg/batch)	3	3	3	3	4	4	4	4	6	6	6	6	
Schering bottle quantity	Φ12mm	920	560	920	560	920	560	920	560	1320	990	1320	990
	Φ16mm	480	285	480	285	480	285	480	285	698	349	698	349
	Φ22mm	260	165	260	165	260	165	260	165	360	184	360	184
Eggplant shape bottle	/	/	8	8	/	/	8	8	/	/	8	8	
Plate load capacity (L)	1.5	1	1.5	1	1.5	1	1.5	1	2	1	2	1	
Plate size(mm)	Φ200	Φ180	Φ200	Φ180	Φ200	Φ180	Φ200	Φ180	Φ240	Φ200	Φ240	Φ200	
Plate distance (mm)	70												
Plate size(pc)	4	3	4	3	4	3	4	3	4	3	4	3	
Cold chamber size(mm)	Φ250×150				Φ250×250				Φ300×405				
Cold trap the lowest temperature(°C)	≤-56 (No load)												
Ultimate vacuum(Pa)	≤5 (No load)												
Power Kw(220V50Hz)	0.95				1				1.3				
Ambient temperature(°C)	≤25												
Overall dimension(mm)	590(L)*460(W)*400(H)+440				600(L)*450(W)*720(H)+440				670(L)*525(W)*910(H)+480				
Weight(Kg)	55	61	57	63	63	70	65	72	79	85	81	87	
Special note	The device size and weight not included in the external vacuum pump Top press model height not included in manual gland handle (The handle height 70mm)												

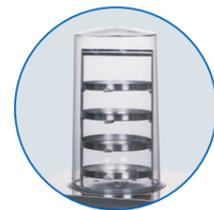
### SELECTION FUNCTION

- ☉ Double refrigeration system, Cold trap up to -80°C
- ☉ Import vacuum pump
- ☉ T-type ampoule bottle rack
- ☉ Defrost function
- ☉ Automatic nitrogen filling interface

# SCIENTZ-ND FREEZE DRYER WITH HEATING FUNCTION SYSTEM

The ND freeze-dryer adds heating to the N-series, accelerating the drying process, saving energy, and providing heating curve settings with a variety of drying solutions for laboratory use.

This series of freeze dryer is divided into four configurations: ordinary type, gland type, multi-manifold general type, multi-manifold gland type, with pre-freeze function.



A: **Ordinary model**

Suitable for bulk materials, liquids and solids drying



B: **Top press model**

Suitable for the drying of Schering bottled material, the vacuum bag can be sealed and sealed by the sample, including the common type of using function



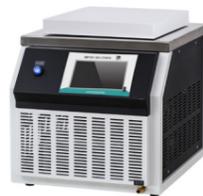
C: **Multi-pipeline model**

Suitable for bulk materials or small materials of freeze-dried, while the external freeze-dried bottles, eggplant-shaped bottles, jars



D: **Top press multi-manifold model**

Contains the use of ordinary multi-manifold features, enabling the vacuum bagging of the sample envelope, to meet most of the laboratory technical requirements



SCIENTZ-10ND



SCIENTZ-12ND



SCIENTZ-18ND

## FEATURES

- The machine uses the international brand Danfoss compressor refrigeration, refrigeration quickly, cold trap temperature is low.
- 7-inch true color touch LCD screen control system, easy to operate, and powerful.
- Industrial embedded operating system, ARM9 core control circuit design, 32M memory 128M FLASH, the operation response speed, large amount of stored data.
- The control system automatically save the freeze-dried data, and can be real-time curve and historical curve in the form of view, the entire freeze-drying process clear.
- The drying room with colorless transparent polycarbonate drying room, the sample is clear and intuitive, can observe the whole process of freeze-drying.
- Vacuum pump and host connection using the international standard KF quick connector, simple and reliable.
- The machine can store multiple freeze-drying curve, and use U disk to extract data to the computer, with the host computer software in the computer to browse print and a variety of options.
- The control system has 36 freeze-drying curve program options, each program contains 40 temperature control settings, can achieve a variety of materials freeze-drying process parameters recorded, a material freeze-dried time directly transferred to the corresponding program The
- The company's unique point heating heating curve calculation method, the temperature is more stable, no overshoot, temperature control more accurate.
- Equipped with inflatable valve, can be filled with dry inert gas;
- Partition temperature adjustable, controllable, can be explored, pilot and production process
- With manual and automatic two modes of operation, you can manually explore the new material freeze-dried curve

## TECHNICAL PARAMETERS

Mod	Scientz-10ND				Scientz-12ND				Scientz-18ND				
	Type	Ordinary	Top press	Ordinary multi-pipeline	Top-press multi-pipeline	Ordinary	Top press	Ordinary multi-pipeline	Top-press multi-pipeline	Ordinary	Top press	Ordinary multi-pipeline	
Dryer area(m <sup>2</sup> )	0.125	0.08	0.125	0.08	0.125	0.08	0.125	0.08	0.18	0.09	0.18	0.09	
Ability to capture water(Kg/batch)	3	3	3	3	4	4	4	4	6	6	6	6	
Schering bottle quantity	Φ12mm	920	560	920	560	920	560	920	560	1320	990	1320	990
	Φ16mm	480	285	480	285	480	285	480	285	698	349	698	349
	Φ22mm	260	165	260	165	260	165	260	165	360	184	360	184
Eggplant shape bottle	/	/	8	8	/	/	8	8	/	/	8	8	
Plate load capacity (L)	1.5	1	1.5	1	1.5	1	1.5	1	2	1	2	1	
Plate size(mm)	Φ200	Φ180	Φ200	Φ180	Φ200	Φ180	Φ200	Φ180	Φ240	Φ200	Φ240	Φ200	
Plate distance (mm)	70												
Plate size(pc)	4	3	4	3	4	3	4	3	4	3	4	3	
Cold chamber size(mm)	Φ250×150				Φ250×250				Φ300×405				
Cold trap the lowest temperature(°C)	≤-56 (No load)												
Ultimate vacuum(Pa)	≤5 (No load)												
Power Kw(220V50Hz)	1.11	1.07	1.11	1.07	1.16	1.12	1.16	1.12	1.46	1.42	1.46	1.42	
Amibient temperature(°C)	≤25												
Temperature range	-55°C~+60°C												
Overall dimension(mm)	590(L)×460(W)×400(H)+440				600(L)×450(W)×720(H)+440				670(L)×525(W)×910(H)+480				
Weight(Kg)	59	65	61	67	67	74	69	76	83	89	86	91	
Special note	The device size and weight not included in the external vacuum pump Top press model height not included in manual gland handle (The handle height 70mm)												

## F SERIES FREEZE DRYER

### FEATURES

- Pre-freeze drying process at in situ situation, reduce the complicate operation from drying process, become automatically;
- Shelf temperature differences  $\pm 1^{\circ}\text{C}$ , dry effect uniform;
- Intermediate medium circulation technique, shelf can refrigeration, heating, temperature adjustable, controllable, pilot scale test and production process;
- Due to drying chamber and cold trap for fission structure, special gas circuit designed, capture water ability is strong and drying time to be short;
- Embedded touch screen, PLC controlled and PID temperature controlled display lyophilized curve and history curve;
- Control system can be stored 40 freeze-dry process programs, each program can have 40 temperature settings, and can choose the manual operation and automatic operation, the Top-Press type is equipped with an automatic defrost function;
- Optional eutectic point test device;
- U disk data available;
- Equipped with PC software can print curve, browsing curve, modify data;
- Square tray is shape not easily to deformed, easy to operate and clean;



### TECHNICAL PARAMETERS

Mod	Scientz-20F		Scientz-30F		Scientz-50F		Scientz-100F	
Type	Ordinary	Top press	Ordinary	Top press	Ordinary	Top press	ordinary	Top press
Dryer area (m <sup>2</sup> )	0.21		0.32		0.54		1.08	
Ability to capture water (Kg/batch)	4		6		10		15	
Schering bottle quantity	$\Phi 12\text{mm}$	1300	1950	3690	7020			
	$\Phi 16\text{mm}$	814	1160	1940	4190			
	$\Phi 22\text{mm}$	430	615	1020	2210			
Plate load capacity (L)	3	1.5	4.5	6	15			
Plate size	L/mm	400		450	600			
	W/mm	270		300	400			
Plate distance (mm)	70							
Plate quantity (pc)	2+1		3+1		4+1			
Plate temperature range (°C)	-55~+60(no load)							
Cold trap the Lowest temperature (°C)	$\leq -70$ (no load)							
Ultimate vacuum(Pa)	$\leq 5$ (no load)							
Power KW (220V50Hz)	3.0	3.0	3.8	4.0	5.0	5.6	6.8	7.4
Amibient temperature (°C)	$\leq 25$							
Overall dimension (mm)	750(L)* 640(W)* 1200(H)	750(L)* 640(W)* 1200(H)	1100(L)* 680(W)* 1240(H)	1100(L)* 760(W)* 1300(H)	1150(L)* 800(W)* 1410(H)	1280(L)* 850(W)* 1550(H)	1300(L)* 1000(W)* 1450(H)	1500(L)* 1200(W)* 1600(H)
Weight(Kg)	236	286	335	360	424	480	610	780
Special note	The device size and weight not included in the external vacuum pump,Top press model height not included in manual gland handle (The handle height 200-350mm) top press model have defrost function							

## SCIENTZ-1LS

Vacuum Centrifugal Concentrator

Equipped with rotary frozen device, namely Scientz - 1LS centrifugal concentration meter, by adopting the combination of centrifugal force, vacuum and accelerate the method to make samples of solvent evaporation, so, reach the role of concentrated samples.It can be a variety of rotor, can provide large quantities of small volume concentration, which can be widely used in biology, microbiology, biochemistry, pharmaceutical research and analytical chemistry, and many other aspects.



### TECHNICAL PARAMETERS

Maximum Speed	2000r/min
Power	220V,50Hz
Weight	30kg
Longest Working Time	1-99h or 1-59min
Temperature Range	RT-70 °C
Input power	1.5Kw
Optional Rotor Type	62 x1. 5/ 2ml and 12 x15ml / 10 ml, 6 x50ml, 2 x96 hole enzyme standard, 2 x48 hole enzyme standard

## DH-II /HS-3

ROTATE MIXER

DNA mixer has been widely applied for sample-mixing in such fields as medicine ,agriculture and bioengineering by using the instrument the mixing and shaking of samples can easily be done instead of manual operation

This mixer can hold centrifuge tubes of different sizes and run continuously at the speed of 10-60rpm for 24hours as the rotating angles are adjustable



HS-3



DH-II

### TECHNICAL PARAMETERS

Model	Voltage	Speed	Mixing method	Suit able tube
DH-II	220V	5-60r/min	circumference	0.5ml:13 pcs, 1ml:12pcs, 2ml:4pcs, 5ml:4pcs
HS-3	220V	5-60r/min	vertical	1-5ml:12pcs, 10-30ml:12pcs

## QY Series Sampler

QY8 / QY12 sampler is a precision instrument designed according to the requirements of Chinese Pharmacopoeia and American Pharmacopoeia. It can be connected with 8-channel / 12-channel dissolution instrument RC810G \ RC810S, RC1210G \ RC1210S to complete the automatic sampling collection.

### TECHNICAL PARAMETERS

Model	QY8	QY12
Sampling channel	8	12
Sampling times	16	16
16-bit test tube rack	Holds 128 test tubes	Holds 192 test tubes
Maximum sampling interval	99 hours 59 minutes	99 hours 59 minutes
Minimum sampling interval (depending on the sampling volume, sampling method and whether to refill)	1 minute for the first time, 2-10 minutes for the rest	1 minute for the first time, 2-10 minutes for the rest
Continuous working time	99 hours 59 minutes × 16	99 hours 59 minutes × 16
Sampling and filtering cycle	<30 seconds	<30 seconds
Sampling volume (or fluid volume)	1ml—100ml	1ml—100ml
Single tube distribution	0ml—15ml	0ml—15ml
Sampling accuracy	RSD1% (10ml)	RSD1% (10ml)
User program	99	99
User no	7 users	7 users
User level	Third grade	Third grade
Record keeping	128 records * 366 days	128 records * 366 days
Using precision glass syringe as sampling power	√	√
High precision, high pressure resistance and high chemical stability	√	√
Built-in mini printer	√	√
Biometric identification	√	√
Teflon tubing with high chemical stability inside	√	√
Filter fluid discharge function to reduce adsorption	√	√
Equivalent fluid replacement function	√	√
Has its own independent piping system, which can meet the requirements of dissolution test for blank and standard.	√	√
16-bit test tube rack, can hold up to the number of test tubes	128	192
The sampling test tube is equipped with a silicone cap to prevent evaporation and contamination of the sample	√	√
Can be run online with the dissolution apparatus	√	
High-sensitivity capacitive touch screen	√	
Authority management	√	√
Audit trail	√	√

### FEATURES

- Using precision glass syringe as sampling power
- Adopt high precision, high pressure resistance and high chemical stability valve body
- Built-in micro printer
- Optional WiFi, Bluetooth, RS232, RS485 expansion interface
- Has the function of equal fluid replacement
- 16-bit test tube rack, can hold up to 128 test tubes
- The sampling test tube is equipped with a silicone cap to prevent evaporation and contamination of the sample
- Ampoule collection device (optional)
- High-sensitivity capacitive touch screen
- Authority management
- Audit trail
- Biometric identification system



## RC810G / RC1210G series Dissolution Tester

The RC810G / RC1210G series dissolution tester for the determination of the dissolution and release of solid preparations, which was developed in full accordance with the "Chinese Pharmacopoeia" and "Guidelines for Mechanical Calibration of Dissolution Testers". On the basis of RC810 / RC1210 models, functions such as automatic dosing, built-in printer, fingerprint registration, and lighting system have been added.

### FEATURES

- Capacitive biometric identification system, convenient login, avoiding the tedious login method of traditional accounts + passwords;
- Individual dosing port design of each dissolution cup, can realize one-button simultaneous dosing of slurry test
- Semi-automatic sequential drug delivery function can be realized;
- Reserve manual sampling pipeline for easy manual sampling;
- Red and white light dual-beam illumination system, the red light beam provides visual observation conditions for light-shielding drug experiments;
- Built-in mini printer to achieve effective backup of experimental data;



### TECHNICAL PARAMETERS

Cup no	8/12+2	Users no	7 users
Tem	RT-45°C	User level	Third grade
Tem resolution	0.01°C	User program	99
Stirring speed	25RPM-250RPM	Record keeping	128 × 366 days
Mixing speed resolution	0.1RPM	Printer	Have
Dosing channel	8/12	Fingerprint login	Have
Dosing method	Manual	Stirring paddle swing	≤0.5mm
Lifting mode of machine head	electric	Basket swing	≤1.0mm
Sampling method	Manual sampling	Deviation of shaft between vessel and vessel	≤2.0mm
Lighting system	White / red light		

## Intelligent Disintegration Tester

ZBJ01 intelligent disintegrator is a new instrument designed in accordance with the requirements of the Chinese Pharmacopoeia. Can detect the disintegration time limit of 3 cups and 18 samples.



### FEATURES

- Set positioning, height adjustment, and fastening in one body, which can quickly disassemble the hanging basket card (patented technology);
- Test time can be adjusted to provide more convenient operation for optimizing experimental conditions;
- Real-time display of time and temperature, convenient to track the progress of the experiment and the experimental environment;
- Exclusive use of voice prompt function, real-time prompt of test status to ensure timely feedback of information;
- Overheating protection is provided to provide a good guarantee for the safety of the experiment;
- The overall water bath box has no dead corners for water bath circulation, which is convenient for cleaning
- Independent lighting system to provide visual observation conditions for experiments;
- Large-screen LCD touch control system, easy to operate and clear display;
- Three levels of user rights management, 7 user accounts, to facilitate the operation of experiments by different users;
- Built-in audit trail function, meet data integrity requirements;

### TECHNICAL PARAMETERS

Model	ZBJ01	Lifting distance	55mm±1mm
Tem	RT—45°C	Screen aperture	Standard:2mm Optiona:1mm, 0.71mm, 0.42mm
Tem resolution	0.01°C	Stop density	1.18—1.20g/cm <sup>2</sup>
Basket no	3 cups	User no	7 Users
Lifting frequency	30—32 Times /Minutes	User level	Third grade
Screen bottom distance from cup bottom	25mm±2mm	ecord keeping	96 record *366 days



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