



*provide you with  
professional solutions  
for sample pretreatments*

HINOTEK GROUP LIMITED

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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℃
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 Weight(The Host And Transducer)	14.5Kg	14.5Kg	15Kg
The Size Of Sound Abating Trap	345*340*570mm	345*340*570mm	345*340*570mm

# 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 homognizer, 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



## 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





XHF-DY  
HIGH-Speed Dispersator

Technical Parameters

Power Supply	220V	The Size Of Blade	Φ10mm processing volume:3-200ml;
Power	360W		Φ14mm processing volume:100-500ml;
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

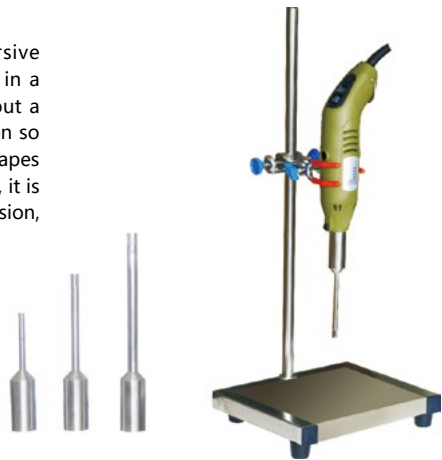


S10High-Speed Homogenizer

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	160W	Processing Volume	1ml-120ml
Power Supply	220V 50/60Hz	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.

Technical Parameters

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-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	



Laboratory Paddle Blenders

Patent Number : ZL200420019738.4

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(2×105 within 2 minutes) but also crush tissues cells (such as liver cells)more gently.The time for

Optional accessories of Lab blenders :

- Filter homogeneous bag
- Disposable sterile tube
- Drip tray



Technical Parameters

Model	Scientz-04	Scientz-09	Scientz-11L
Timing	30、180、600sor ∞ (continuous working Turn)	0.1 ~ 99min(to 0.1mins step)	
Rap Speed	6-9time/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

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 PRESSURE HOMOGENIZER

Patent Number : ZL200910099490.4

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	<60KG
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 )

Technical Parameters

Target Region	( big ) 40cm²
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-organelles, chloroplast, mitochondria
Voltage	220V/110V
Gas	Helium or nitrogen ( helium is more optimized )
Metal Particle	Φ0.8-1.5µm



SJ-500  
PORTABLE GENE GUN

Patent Number : ZL01 105513.8 200630105826.0

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) 2cm²
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 partical	Φ0.8-1.5µm
Bombardment way	Magazine sample points directly or nylon



# HYBRIDIZATION OVEN

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



## Technical Parameters

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

# 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

Model	Scientz-2C	Resistance	50, 100, 150, 1600, -∞total 30 grades
Pulse form	Exponential decay	Operation system	Microcomputer control
High Output voltage	400-2500V	Output waveform	With RC time constant of the exponential decay of wave
Low output voltage	50-450V	Dimension	36.8*31.6*22.9(cm)
High voltage capacitor	1, 5, 6, 25, 30, 31UF	Weight	10.5Kg
Low voltage capacitor	100UF,125UF,150UF...1675UF,one grades of 25UF	Packing size	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	
Bunchy pulse voltage	Peak-peak value 0-58V(0-±29V), adjustable continuously
Bunchy pulse frequency	30KHz-3000KHz adjustable
Gate time	10-1000 um, 1 us increasing decline, adjustable continuously
DC Field Parameters	
Square wave fusion pulse voltage	5-600V adjustable(electrode distance)1.0mm electric voltage field reach 6000V/cm.
Square wave fusion pulse range	5-5000 - us, 1 us increasing decline, adjustable continuously
Fusion (square wave) pulse number	1-9 pcs
With fusion flat electrode	Polar distance 0.5mm, optional electrode in the table below
Net weight	9.22Kg
Packing size	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:

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

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/cm²) 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 cm²)
- 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/cm²
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

DT 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-100DT	300*150*100	4.5	40	100	200	RT+5-80	1-99	/	√
SB-120DT	240*140*100	3	40	120	200	RT+5-80	1-99	/	√
SB-120DT	240*140*150	5	40	120	200	RT+5-80	1-99	/	√
SB-3200DT	300*155*150	6	40	180	400	RT+5-80	1-99	/	√
SB-5200DT	300*240*150	10	40	200	800	RT+5-80	1-99	√	√
SB-5200DT	300*240*150	10	40	250	800	RT+5-80	1-99	√	√
SB-5200DT	300*240*150	10	40	300	800	RT+5-80	1-99	√	√
SB-4200DT	300*240*200	14.4	40	400	800	RT+5-80	1-99	√	√
SB25-12DT	500*300*150	22.5	40	500	1000	RT+5-80	1-99	√	√
SB25-12DT	500*300*150	22.5	40	600	1000	RT+5-80	1-99	√	√
SB-800DT	500*300*200	30	40	800	1000	RT+5-80	1-99	√	√
SB-1000DT	600*300*300	54	28	1000	3000	RT+5-80	1-99	√	√
SB-1200DT	600*400*300	70	28	1200	4000	RT+5-80	1-99	√	√
SB-1500DT	600*500*300	90	28	1500	4000	RT+5-80	1-99	√	/
SB-1800DT	600*600*300	108	28	1800	4000	RT+5-80	1-99	√	/
SB-2000DT	User offer size	117	28	2000	6000	RT+5-80	1-99	√	/
SB-3600DT	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 .

ULTRASONIC CLEANER

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

Technical Parameters

DTD Series Ultrasonic Cleaning Machine

Model	Inner tank (mm)L/W/H	volume (L)	Frequency (KH)	Power (W)	Heating power(W)	Drainge
SB-3200DTD	300*155*150	6	40	180	400	/
SB-5200DTD	300*240*150	10	40	200	800	√
SB-5200DTD	300*240*150	10	40	250	800	√
SB-5200DTD	300*240*150	10	40	300	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 .

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 :
- 0-99minutes 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 28 40 59	300	800	√	√
SB-400DTY	300*240*200	15		400	800	√	√
SB-500DTY	500*300*150	22.5		500	1000	√	√
SB-600DTY	500*300*200	30		600	3000	√	√
SB-1000DTY	600*300*300	54		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

Features

Patent Number : ZL200920114749.3

- Interchangeable use of two kinds of frequencies: 25KHz、 40KHz
- Digital display and setting ultrasonic cleaning time
- Display woking 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



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

Sc series constant temperature water bath is 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. 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 can provide for users a working environment where cold or heat was controlled accordingly. As a result, the temperature is kept evenly. Optional volatility  $\pm 0.05^{\circ}\text{C}$ ,  $\pm 0.2^{\circ}\text{C}$ . Two-color (red and green) LED display with dual window. Available is a large-screen LCD display. It is quick to set the temperature by touching the soft keys and easy to operate. The Micro-Computer can amend deviation of temperature measurements. Temperature display accuracy  $0.1^{\circ}\text{C}$ . Fitted with a ultra-temperature alarm system.



### Technical Parameters

Model	Temperature Range $^{\circ}\text{C}$	Temperature Volatility $^{\circ}\text{C}$	Display Resolution (mm <sup>3</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-15A	Ambient+5~200	$\pm 0.05 \sim \pm 0.2$	0.1	300×240×200	200	Cycle	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-20A	Ambient+5~200	$\pm 0.05 \sim \pm 0.2$	0.1	500×300×150	150	cycle	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-25A	Ambient+5~200	$\pm 0.05 \sim \pm 0.2$	0.1	280×250×300	300	cycle	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-30A	Ambient+5~200	$\pm 0.05 \sim \pm 0.2$	0.1	400×330×230	230	cycle	310×280	/
SC-30B	Ambient+5~90	$\pm 0.05 \sim \pm 0.2$	0.1	Φ300×300	300	6	Φ150	√

## CK Series Thermostatic Bath

This product is automatic setting of PID algorithm without overshoot, complete function, easy to use, is the best product, analog temperature control is indispensable for medical apparatus and instruments, laboratory instruments commonly used temperature control equipment. Extensively used in Petrochemical industry, National Defense, Metallurgy, Chemical Industry, Physics, Biology Engineering, Chemistry, Pharmaceutical, life science, electronic instrument, quality inspection and measurement, plant laboratory, colleges, Research and Development Institutes and so on.

### Technical Parameters

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

### 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  $0.1^{\circ}\text{C}$ .
- 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

## Low Temperature Cooling Machine

### Features

- DLK series rapid low 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 multi-function homework and drug store.
- Large low temperature cooling pump persistence flow, constant pressure, circulation liquid (water) can meet electronic microscope and electron probe, ultrahigh vacuum sputtering meter, the Xray machine, laser, electronic accelerator.High purity metal, rare material purification, environment experiment, vacuum coating equipment such as the pure water cooling and large constant temperature. This machine is especially suitable for the need to maintain low temperature, normal temperature under the working conditions of the chemical, biological
- The main parts by international famous instrument manufacturer of fluorine free original closed compressor set, performance, reliable quality
- Refrigeration unit using special relays, protector, capacitor, for the original import from high quality device;
- Microcomputer control temperature, LCD display temperature, time, the operation is simple, eye-catching;Circulation system USES corrosion materials circulation pump, have rust and corrosion resistance, prevent pollution and traffic flow, high pressure, low temperature of the pump body function; The cooling liquid can be directly used to transport the circulation within the places.



### Technical Parameters

Model	Volume	Temp. Range	Temp. Stability ( $^{\circ}\text{C}$ )	Display	Drainage	Refrigerating capacity ( $0^{\circ}\text{C}/\text{w}$ )	Voltage
DLK-1007	7 L	-10 $^{\circ}\text{C}$ -Ambient	$\pm 2^{\circ}\text{C}$	LCD	YES	1365w	220V/50Hz
DLK-2007	7 L	-20 $^{\circ}\text{C}$ -Ambient	$\pm 2^{\circ}\text{C}$	LCD	YES	1538w	220V/50Hz
DLK-4007	7 L	-40 $^{\circ}\text{C}$ -Ambient	$\pm 2^{\circ}\text{C}$	LCD	YES	2052w	220V/50Hz
DLK-1010	10 L	-10 $^{\circ}\text{C}$ -Ambient	$\pm 2^{\circ}\text{C}$	LCD	YES	2458w	220V/50Hz
DLK-2010	10 L	-20 $^{\circ}\text{C}$ -Ambient	$\pm 2^{\circ}\text{C}$	LCD	YES	2651w	220V/50Hz
DLK-4010	10 L	-40 $^{\circ}\text{C}$ -Ambient	$\pm 2^{\circ}\text{C}$	LCD	YES	2847w	220V/50Hz
DLK-1020	20 L	-10 $^{\circ}\text{C}$ -Ambient	$\pm 2^{\circ}\text{C}$	LCD	YES	3960w	220V/50Hz
DLK-2020	20 L	-20 $^{\circ}\text{C}$ -Ambient	$\pm 2^{\circ}\text{C}$	LCD	YES	5008w	220V/50Hz
DLK-4030	30 L	-40 $^{\circ}\text{C}$ -Ambient	$\pm 2^{\circ}\text{C}$	LCD	YES	11808w	380V/4 lines



DC series Thermostatic Water (oil) bath with digital control (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 enviromentally friendly CFC-free refrigeration technology to meet the requirements of enviromental 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 (bar)	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	√



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	500x612x945	62	Air-cooled	≤5.4
XB-150	150	55	635×611×945	70	Air-cooled	≤6.2

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

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



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






SCIENTZ-10N

**A: Ordinary model**  
Suitable for bulk materials, liquids and solids drying




SCIENTZ-12N

**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

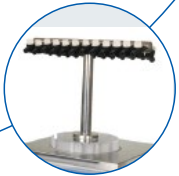


SCIENTZ-18N

**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



**E: T model**  
For vacuum ampoule package

The Characteristics Of Freeze Dryer

- 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			
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	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 chmaber 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			
Amibient 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

⊙ Defrost function

⊙ Import vacuum pump

⊙ Automatic nitrogen filling interface

⊙ T-type ampoule bottle rack




SCIENTZ-ND  
FREEZE DRYER 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-ND  
FREEZE DRYER SYSTEM

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		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 chmaber 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											
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)											

Selection function

- ⊙ Double refrigeration system , cold trap up to -80
- ⊙ Defrost function
- ⊙ Import vacuum pump
- ⊙ Automatic nitrogen filling interface
- ⊙ T-type ampoule bottle rack
- ⊙ Eutectic point test



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 ± 1 °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 ( m2 )		0.21		0.32		0.54		1.08	
Ability to capture water ( Kg/ batch )		4		6		10		15	
Schering bottle quantity	Φ12mm	1300		1950		3690		7020	
	Φ16mm	814		1160		1940		4190	
	Φ22mm	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 )		≤-70 ( no load )							
Ultimate vacuum(Pa)		≤5 ( no load )							
Power KW ( 220V50Hz )		3.0	3.0	3.8	4.0	5.0	5.6	6.8	7.4
Ambient temperature ( °C )		≤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)* 850W)* 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 - 10LS 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
Input power	1.5Kw
Weight	30kg
Longest Working Time	1-99h or 1-59min
Temperature Range	RT-70 °C
Optional Rotor Type	62 x1. 5/ 2ml and 12 x15ml / 10 ml, 6 x50ml, 2 x96 hole enzyme standard, 2 x48 hole enzyme standard