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**Laboratory Instruments**

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# DRYING OVEN (Bench top)



## Product Overview

Suitable for drying, barking and heat treatment of goods in laboratories of colleges and universities ,industrial and mining enterprises , medical and health units, research institute.



## Product Features

1. The shell is made of high quality cold plate , the surface is treated by spraying process treatment.
2. The studio is made of mirror stainless steel or galvanized plate by processing and manufacturing.
3. Intelligent digital display PID temperature control meter, with timing ,over-temperature alarm, temperature deviation correction, temperature control self-adjusting and other functions.
4. Stainless steel liner.
5. The fan is equipped with an independent switch, which the Feature of high temperature corrosion resistance, and can continuously work for a long time.
6. Power supply:220V 50HZ.
7. Temperature control range: room temperature +5-300°C,temperature fluctuation 1°C.
8. Constant temperature mode: relying on the fan and independent air flue, adopting forced convection



Model	DS-101-0BS	DS-101-1BS	DS-101-2BS
Volume	42L	70L	136L
(KW) Power(KW)	1	1.5	2
Temperature range	RT+5-300°C		
Temperature resolution radio	1°C		
Temperature degree of fluctuations	±1°C		
Temperature degree of uniformity	±1°C		
Circulation mode	Forced convection		
Timing	0-999 minutes (Switchable hours)		
Display	Double row digital tube display		
Exhaust port	Diameter 40 mm(can be used test hole)		
Material of studio	stainless inner liner		
Heater	Stainless heating tube		
Alarm type	Over temperature sound illumination alarm		
Multiple segment program control	Optional		
Temperature sensor	K type		
Inner size(mm)	350x350x350	350x450x450	450x550x550
Appearance size(mm)	500x640x500	500x740x600	600x840x700
Net weight/Gross weight (Kg)	29/30	36/38	62/65
power supply	220V/50Hz		
Working environment temperature	5-50°C		

# DRYING OVEN



## Product Overview

Suitable for drying ,baking and heat treatment right dust ,powder etc. fear of wind of goods in industrial and mining enterprises, laboratories of colleges and universities, research institute, medical and health units.



## Product Features

1. The shell is made high quality cold plate by processing and shaping. The surface is treated by spraying process.
2. The studio is made of mirror stainless steel or galvanized plate by processing and manufacturing.
3. Intelligent digital display PID temperature control meter with timing, over-temperature alarm, temperature deviation correction, temperature self-adjusting and other functions.
4. Stainless steel liner.
5. Temperature control range :root temperature +5-300°C.
6. Power supply : 220V 50Hz.
7. Temperature fluctuation:  $\pm 1^{\circ}\text{C}$ .
8. Constant temperature mode: nature convection.
9. **Optional LCD meter.**



Model	DS-202-0DS	DS-202-1DS	DS-202-2DS	DS-202-3DS
Volume	42L	70L	136L	210L
Power(KW)	1	1.5	2	3
Temperature range	RT +10-300°C			
Temperature resolution radio	1°C			
Temperature degree of fluctuations	$\pm 1^{\circ}\text{C}$			
Temperature degree of uniformity	$\pm 1^{\circ}\text{C}$			
circulation mode	Nature convection			
Timing	0-999 minutes(Switchable hours)			
Display	Double row digital tube display			
Exhaust port	Diameter 40 mm(can be used test hole)			
Material of studio	stainless inner liner			
Heater	Stainless heating tube			
Alarm type	Over temperature sound illumination alarm			
Multiple segment program control	Optional			
Temperature sensor	K type			
Inner liner size(mm)	350×350×350	350×450×450	450×550×550	500×600×700
Appearance size(mm)	500×470×670	520×570×770	620×670×870	650×720×970
Net weight/Gross weight (Kg)	27/30	37/41	51/58	65/75
Power	220V/ 50Hz			
Working environment temperature	5-50°C			

# BOD INCUBATOR



## Product Overview

This product Suitable for testing and production departments of environmental protection, health and epidemic prevention, livestock, drug testing, aquaculture and other scientific research institutes, is the special constant temperature equipment for water body analysis, measuring bacteria and mold by BOD, culturing and preserving microorganisms, cultivating plants and breeding.



## Product Features

1. Comply with the world trend of environmental protection, new fluoride-free design
2. Large LCD display, operation interface for multiple groups of data together, easy to understand, observe and operate
3. Using made of mirror stainless steel Quadrangular semicircle over-arc, partition bracket can be loaded and unloaded freely, easy to clean the studio
4. The box is equipped with a 40mm diameter test hole on the left side , the external power socket is provided as standard, arbitrary wiring can be arranged according to the need of the place
5. The box can begin to oscillation culture in constant temperature once putting the oscillator in
6. Fuzzy PID controller, temperature control small precision fluctuation with timing function, the maximum time can be set to 9999 minutes
7. There is a lamp in the work room, easy to observe the experiment in the work room
8. Brand compressor and circulation fan , unique circulation air flue design concept,to ensure uniform studio temperature, to avoid volatilizing samples due to excessive air volume during the experiment
9. The door is equipped with a hollow tempered glass observation window for easy to observe internal state of the instrument.
10. Optional with functions such as 485 communication, USB interface, printer, leakage protection etc.



Model	DSX-80B	DSX-150B	DSX-250B	DSX-350B
Volume	80L	150L	250L	350L
Power(KW)	0.8	0.9	1	1.2
Temperature range	0-60°C			
Temperature degree of fluctuations	±0.5°C			
Temperature degree of uniformity	±1°C			
Temperature display accuracy	±0.1°C			
circulation mode	Breeze stirring system			
display	LCD			
alarm type	Beep alarm			
compressor	Air-cooled enclosed compressor			
material of studio	304 stainless steel			
temperature sensor	PT100			
Inner size (mm)	350x450x450	400x500x730	500x500x950	500x600x1100
Appearance size(mm)	550x595x1040	610x640x1270	695x640x1490	700x740x1640
Net weight/Gross weight (Kg)	56/60	71/76	75/80	154/160
Layer number of partition	8	12	12	12
Power supply	220V /50Hz			

# BOD INCUBATOR E-PRO SERIES



## Product Overview

This product Suitable for testing and production departments of environmental protection, health and epidemic prevention, livestock, drug testing, aquaculture and other scientific research institutes, is the special constant temperature equipment for water body analysis, measuring bacteria and mold by BOD, culturing and preserving microorganisms, cultivating plants and breeding.



## Product Features

1. Comply with the world trend of environmental protection, new fluoride-free design
2. touch screen LCD display operation interface for multiple groups of data together, easy to understand, observe and operate
3. Using made of mirror stainless steel Quadrangular semicircle over-arc, partition bracket can be loaded and unloaded freely, easy to clean the studio
4. The box is equipped with a 40mm diameter test hole on the left side, the external power socket is provided as standard, arbitrary wiring can be arranged according to the need of the place
5. The box can begin to oscillation culture in constant temperature once putting the oscillator in
6. Fuzzy PID controller, temperature control small precision fluctuation with timing function, the maximum time can be set to 99 hours 59 minutes
7. The studio is equipped with UV sterilization lamp for sterilization work in the laboratory.
8. Using brand compressor and circulation fan, unique circulation air flue design, to ensure uniform temperature in the studio, avoid volatilizing samples due to excessive air volume during experiment.
9. Built-in whole tempered glass door, for easy to observe internal state of the instrument.
10. Built-in leakage protector, with fault self-test function.
11. Timing setting, running time modify.
12. Temperature setting, Segment number 24 segment program running mode, temperature curve can be watched in real time.
13. Can save the history record, (month day, year), can view the history date data at will.
14. Print save, can view at the time in real time history record, also can export by USB history data.
15. EPR-30B optional inverter can be used as vehicle type.



Model	DSR-80B	DSR-150B	DSR-250B	DSR-350B
Volume	80L	150L	250L	350L
Power(KW)	0.8	0.9	1	1.2
Temperature range	0-60°C			
Temperature degree of fluctuations	± 0.5°C			
Temperature degree of uniformity	± 1°C			
Temperature display accuracy	0.1°C			
Circulation mode	breeze stirring			
Display	Touch screen			
Alarm type	Beep alarm			
Compressor	Air-cooled enclosed compressor			
Material of studio	304 stainless steel			
Temperature sensor	PT100			
Inner size (mm)	350x450x450	400x500x730	500x500x950	500x600x1100
Appearance size(mm)	550x595x1115	610x640x1345	695x640x1565	700x740x1715
Net weight/Gross weight (Kg)	65/72	76/85	86/95	165/178
Layer number of partition	8	12	12	12
Power supply	220V/ 50Hz			

# WATER BATH POT

## ELECTROTHERMAL CONSTANT TEMPERATURE



### Product Features

1. Inner liner is made of stainless steel.
2. Temperature control system adopted microcomputer chip processor, high precision temperature control.
3. Easy to operate, with of functions such as timing setting, over-temperature alarm.
4. Auxiliary menu for over-temperature alarm, to achieve deviation correction.
5. Adjustable beaker hole.
6. Touch button setting, with functions such as over-temperature alarm, relay protection, temperature correction, timing etc. timing range 0-999 minutes.
7. Heating method: bottom heating, nature water convection heat transfer.
8. Optional LCD meter (with start-stop function)



Model	DS-2-4	DS-2-6	DS-2-8
Name	Double rows four holes	Double rows six holes	Double rows eight holes
Power(KW)	1	1.5	2
Volume	12L	18.6L	22.6L
Temperature range	RT+5-100°C		
Temperature degree of fluctuations	±0.5°C		
Temperature degree of uniformity	±0.5°C		
Cooling method	Nature cooling		
Inner size(mm)	305x305x130	470x305x130	600x290x130
Appearance size(mm)	340x350x210	510x350x210	635x340x210
Power supply	220V/ 50Hz		



# BACTERIOLOGICAL INCUBATOR

## BENCHTOP SERIES ELECTROTHERMAL



### Product Overview

Suitable for laboratories in industrial and mining enterprises, colleges and universities, medical and health units etc., for culture experiments of microorganisms and bacterial.



### Product Features

1. The shell is made of high quality cold plate by processing and shaping, the surface is treated by spraying process treatment.
2. The studio is made by mirror stainless steel or galvanized sheet by processing and manufacturing.
3. Constant Temperature mode: nature convection.
4. Stainless steel liner.
5. Temperature control range: in room  $\pm 5-60^{\circ}\text{C}$
6. Power by: 220V 50Hz.
7. Temperature fluctuation:  $\pm 0.5^{\circ}\text{C}$ .
8. Intelligent digital display PID temperature control meter, with timing, over-temperature alarm, temperature deviation correction, temperature self-adjusting and other functions.



Model	DS-36BS	DS-40BS	DS-50BS
volume	42L	70L	136L
Power(KW)	0.4	0.5	0.6
Temperature range	RT+5-60°C		
Temperature resolution ratio	0.1°C		
Temperature degree of fluctuations	$\pm 0.5^{\circ}\text{C}$		
Temperature degree of uniformity	$\pm 0.5^{\circ}\text{C}$		
Circulation mode	nature convection		
Timing	0-9999 minutes (switchable hours)		
Display	double row digital tube display		
Exhaust port	Diameter 40 mm(can be used test hole)		
Material of studio	stainless inner liner		
Heater	stainless heating tube		
Alarm	over temperature sound illumination alarm		
Temperature sensor	CU50		
Multiple segments program control	optional		
Inner size(mm)	350x350x350	350x450x450	450x550x550
Appearance size(mm)	500x470x670	520x570x770	620x670x870
Net weight/Gross weight(Kg)	25/30	35/41	51/58
Power Supply	220V/50Hz		
Worker environment temperature	5-50		

# VACUUM DRYING OVEN



## Product Overview

Widely used in biochemical and pharmaceutical, medical and health, agricultural research, environmental protection and other research. Used for powder drying ,baking ,disinfection and sterilization , and can be injected into the inert gas. Especially for drying heat sensitivity, easy decomposition, easy oxidation and complex components of the goods fast and efficient drying treatment.



## Product Features

1. The vacuum environment greatly reduces the boiling point of the liquid which needs to be expelled, so it can be easily used for heat-sensitive substance.
2. For difficult samples, such as powder or other granular samples, the usage can effectively shorten the drying time.
3. A variety of complex mechanical parts or other multi-spaces, after cleaning, vacuum drying method is used to dry completely without leaving any participating substance.
4. Safer to use and can completely eliminate the possibility of oxides encountering thermal explosions under vacuum or inert conditions.
5. Compared with ordinary drying box relying on air circulation, the powdered samples are not blown or moved by moving air.



Model	DSF-6020AB	DSF-6050AB	DSF-6090AB
Volume	20L	50L	90L
Power(KW)	0.3	1.4	2
Temperature range	RT+10-200°C		
Temperature resolution radio	1°C		
Temperature degree of fluctuation	±1°C		
Degree of vacuum	≤133Pa		
Circulation mode	nature heat conduction		
Timing	0-999 minutes (switchable hours)		
Display	double rows digital tube display		
Material of studio	stainless liner		
Heater	stainless heating tube		
Alarm type	sound illumination alarm		
Vacuum pumping method	manual		
Multiple segment program control	optional		
Temperature sensor	PT100		K type
Inner size(mm)	300x300x275	370x415x345	450x450x450
Appearance size(mm)	464x595x460	549x725x540	734x755x645
Net weight/Gross weight (Kg)	46/50	72/76	92/97
Power supply	220V/50Hz		
Working environment temperature	5-50		

# ICE FLAKING MACHINE

## Multiple options



### Product Features

1. Compact design, Luxurious appearance.
2. Adopted high-quality stainless steel outer skin, anti-corrosion and durable, independent of one structure, compact and simple, space-saving.
3. Cabinet insulation is CFC-free foam, fluorine-free antibacterial type inner, energy saving and environmental protection.
4. High efficiency CFC-free R134a compressor
5. Auto microcomputer control & running, easy to use.
6. Adopted Italian two-stage reducers, low noise, smooth and reliable operation.
7. Cooling holes and fans in the top of the machine to ensure reducer motor reliable operation under high temperature and harsh conditions
8. Small ice style and practical.
9. Tank float type water system to ensure that no residual water more than water, no de-icing process, absolute loss, the residual water, saving water and energy.
10. Ice full display, lack of water, too cold protection, fault warning display protective shutdown. The machine will automatically shut down by full/lack of water, automatically boot when the failure removed, with automatic memory & recovery function.
11. Small granular snow ice, designed for the laboratory.
12. Snow flake-shaped ice is widely used in hospitals, schools, laboratories, research institutes and other occasions as well as supermarket food preservation, fishing, cold storage, medical applications, chemical, food processing industry, a wide range of applications.
13. A power-overloading protecting device, water shortage auto-detecting system and ice storage full control device.

Model	DS-20	DS-40	DS-50	DS-85	DS-100	DS-130
Capacity(kg)/24h	20	40	50	85	100	130
Ice storage(kg)	10	15	15	28	28	30
water consumption(L/H)	≤0.8	≤1.6	≤2.0	≤3.5	≤4.1	≤5.4
Condensation	wind cooling	wind cooling	wind cooling	wind cooling	wind cooling	wind cooling
Unit dimension(mm)	300x493x547	380x543x712	380x543x722	548x611x883	548x611x883	548x611x883
Packing dimension(mm)	377x571x595	457x621x760	457x621x770	625x690x932	625x690x932	625x690x952
NW(kg)	32	40	40	57	58	62
GW(kg)	36	45	45	62	64	68
Input Power(W)	180	280	280	420	420	478
Refrigerant	R134a	R134a	R134a	R134a	R134a	R134a

# ULTRA PURIFIED WATER SYSTEM

## PRIME S20

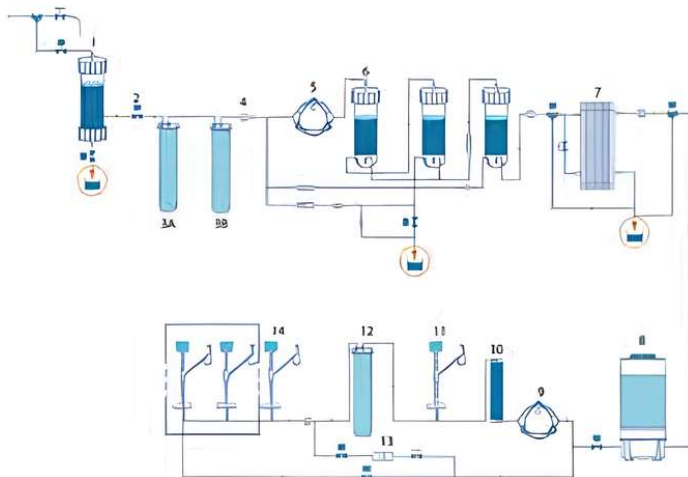


### Product Overview

- © All-in-one system for ASTM Type I & Type II water/Clinical laboratory reagent water (CLSI)
- © Real on-line TOC analyzer with 185nm UV-lamp inside
- © EDI module imported
- © Dual wavelength UV-lamp 254nm & 185nm
- © Two (Type I & Type II) remote water dispenser arms with touch screen display
- © U-cloud platform for remote monitoring (Wifi module)
- © USB access port for data logging



### Water Flow Chart



- |                                 |                              |                                |
|---------------------------------|------------------------------|--------------------------------|
| 1 Pre-treatment module          | 2 Solenoid valve             | 3A Pre-guard cartridge A       |
| 3B Pre-guard cartridge B        | 4 Conductivity electrode     | 5 Booster pump                 |
| 6 RO membrane                   | 7 EDI module                 | 8 Water tank                   |
| 9 Circulating pump              | 10 UV lamp 185 & 254 nm      | 11 Type II water dispenser arm |
| 12 Ultra purification cartridge | 13 Real on-line TOC analyzer |                                |
| 14 Type I water dispenser arm   |                              |                                |

Main configurations	All-in-one system PRIME S20
Pre-treatment module	YES
Main host	YES
Pre-guard cartridge A	YES
Pre-guard cartridge B	YES
Ultra purification cartridge A*	YES
Two-stage Reverse osmosis	YES
EDI module imported	YES
Pre purification cartridge A	NO
Pre purification cartridge B	NO
Dual wavelength (254nm & 185nm) UV-lamp	YES
Real on-line TOC analyzer	YES
Type I Remote water dispenser arm with touch screen display	YES
Type II Remote water dispenser arm with touch screen display	YES
2M water piping from main unit to water tank & water dispenser	YES
60L water tank of Type II water, stepless water level sensor	YES
254nm UV light of water tank	YES
Inlet air filter of water tank 0.2μm	YES
Water leakage protection sensor	YES
0.22 μm end filter	YES
Feed water requirements	
Source	Potable tap water
Conductivity	<2000μS/cm
TOC	<1ppm
Hardness*	<450ppm as CaCO <sub>3</sub>
Pressure	0.1~0.4MPa (7~72psi)
Temperature	5~45°C
PH	4~10

## ULTRA PURIFIED WATER SYSTEM **PRIME S20**

Main configurations	All-in-one system PRIME S20
Type II high purified water	
Resistivity at 25°C**	15MO.cm; typically 10 -15MO.cm
Conductivity at 25°C**	0.067µS/cm; typically 0.1µS/cm
TOC	<30ppb(µg/L)
Particulates with size > 0.22µm***	No particles
Endotoxin (Pyrogens)***	<0.001EU/mL
Bacteria***	<0.01cfu/mL (<10cfu/L)
Rnase***	<1pg/mL
Dnase***	<3pg/mL
Proteases***	<0.15µg/mL
RO rejection	≥99%
EDI ion rejection	≥99%
Production flow rate	20L/H
Manual control water flow rate	Maximum 2L/min, stepless control of flow rate
Quantitative water dispense range	0.01L ~ 60L
Type I ultra purified water	
Resistivity at 25°C	18.2MO.cm
Conductivity at 25°C	0.055µS/cm
TOC	≤2ppb(µg/L)
Particulates with size > 0.22µm	No particles
Endotoxin (Pyrogens)	<0.001EU/mL
Bacteria	<0.01cfu/mL (<10cfu/L)
Rnase/Dnase	Free
Proteases	<0.15µg/mL
Manual control water flow rate	Maximum 2L/min, stepless control of flow rate
Quantitative water dispense range	0.01L ~ 60L
Electrical requirement	
Electrical voltage	110V/220V ±10%
Electrical frequency	50Hz/60Hz
Power	<135W
Size information	
Net Weight	
Pre-treatment module	8.5kg
Main host	33.2kg
Water dispenser arm	5.2kg/unit
30L Water tank	9kg
60L Water tank	10.66kg
100L Water tank	12.2kg
External Dimension (WxDxH)	
Pre-treatment module	270x280x566 (mm)
Main host	328x520x540 (mm)
Water dispenser arm	490x270x790 (mm) /unit
30L Water tank	390x390x690 (mm)
60L Water tank	390x390x930 (mm)
100L Water tank	390x390x1235 (mm)
Packing information	
Gross Weight	
Pre-treatment module	9.8kg
Main host	44kg
Water dispenser arm	7.9kg/unit
30L Water tank	12.4kg
60L Water tank	14kg
100L Water tank	15.6kg
Packing Dimension (WxDxH)	
Pre-treatment module	350x360x670 (mm)
Main host	510x670x750 (mm)
Water dispenser arm	840x530x290 (mm) /unit
30L Water tank	520x520x780 (mm)
60L Water tank	520x520x1020 (mm)
100L Water tank	520x520x1325 (mm)



# ULTRA PURIFIED WATER SYSTEM

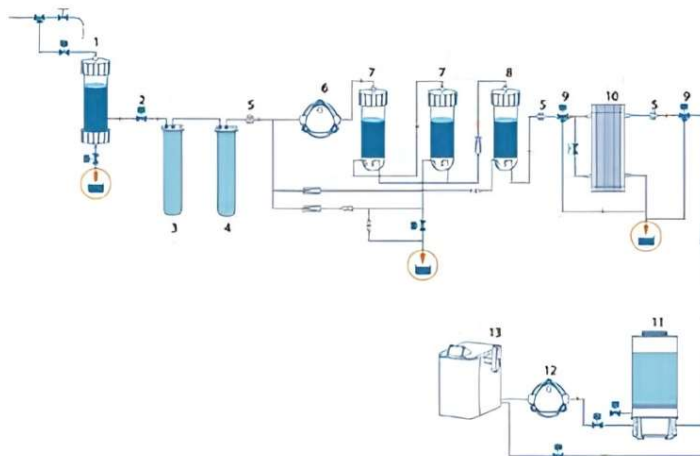
## NEO U20



### Product Overview

- ◎ Integrated water dispenser arm
- ◎ China made EDI self-developed
- ◎ U-cloud platform for remote monitoring (Wifi module)
- ◎ USB access port for data logging

### Water Flow Chart



- |                                 |                           |                          |
|---------------------------------|---------------------------|--------------------------|
| 1. Pre-treatment module         | 2. Solenoid valve         | 3. Pre-guard cartridge A |
| 4. Pre-guard cartridge B        | 5. Conductivity electrode | 6. Booster pump          |
| 7. One-stage RO membrane        | 8. Two-stage RO membrane  | 9. TEE Solenoid valve    |
| 10. EDI module                  | 11. Water tank            | 12. Circulating pump     |
| 13. Type II water dispenser arm |                           |                          |

Main configurations	All-in-one system NEO U20
Pre-treatment module	YES
Main host	YES
Pre-guard cartridge A	YES
Pre-guard cartridge B	YES
Pre purification cartridge A	NO
Pre purification cartridge B	NO
Two-stage Reverse osmosis	YES
EDI module self-developed	YES
60L water tank; stepless water level sensor	YES
254nm UV light of water tank	YES
Inlet air filter of water tank 0.2μm	YES
Water leakage protection sensor	YES
Dual wavelength (254nm & 185nm )UV-lamp	YES
TOC monitoring	YES
Ultra purification cartridge A	YES
One integrated type I water dispenser arm	YES
1M water piping from main unit to water dispenser arm	YES
0.22 μm end filter	YES
Feed water requirements	
Source	Potable tap water
Conductivity	<2000μS/cm
TOC	<1ppm
Hardness*	<450ppm as CaCO
Pressure	0.1~0.4Mpa (7~72psi)
Temperature	5~45°C

# ULTRA PURIFIED WATER SYSTEM

## NEO U20

Model	All-in-one system NEO U20
PH	4-10
Type II high purified water	
Resistivity at 25°C**	15MO.cm; typically 10-15MO.cm
Conductivity at 25°C**	0.067µS/cm; typically 0.1µS/cm
TOC	<30ppb(µg/L)
Particulates with size > 0.22µm***	No particles
Endotoxin (Pyrogens)***	<0.001EU/mL
Bacteria***	<0.01cfu/mL (<10cfu/L)
Rnase***	<1pg/mL
Dnase***	<3pg/mL
Proteases***	<0.15µg/mL
RO rejection	≥99%
EDI ion rejection	≥99%
Production flow rate	20L/H
Manual control water flow rate	Maximum 2L/min, stepless control of flow rate
Quantitative water dispense range	10mL ~ 60L
Type I ultra purified water	
Resistivity at 25°C	18.2MO.cm
Conductivity at 25°C	0.055µS/cm
TOC	≤2ppb(µg/L)
Particulates with size > 0.22µm	No particles
Endotoxin (Pyrogens)	<0.001EU/mL
Bacteria	<0.01cfu/mL (<10cfu/L)
Rnase/Dnase	Free
Proteases	<0.15µg/mL
Manual control water flow rate	Maximum 2L/min, stepless control of flow rate
Quantitative water dispense range	0.01L ~ 60L
Electrical requirement	
Electrical voltage	110V/220V ±10%
Electrical frequency	50Hz/60Hz
Power	<135W
Size information	
Net Weight	
Pre-treatment module	8.5kg
Main host with dispenser arm	30.8kg
30L Water tank	9kg
60L Water tank	10.66kg
100L Water tank	12.2kg
External Dimension (WxDxH)	
Pre-treatment module	270x280x566 (mm)
Main host	328x540x600 (mm)
Integrated dispenser arm	42x85.5x231.5 (mm)
30L Water tank	390x390x690 (mm)
60L Water tank	390x390x930 (mm)
100L Water tank	390x390x1235 (mm)
Packing information	
Gross Weight	
Pre-treatment module	9.8kg
Main host with dispenser arm	41.6kg
30L Water tank	12.4kg
60L Water tank	14kg
100L Water tank	15.6kg
Packing Dimension (WxDxH)	
Pre-treatment module	350x360x670 (mm)
Main host with dispenser arm	510x670x800 (mm)
30L Water tank	520x520x780 (mm)
60L Water tank	520x520x1020 (mm)
100L Water tank	520x520x1325 (mm)

# SEMI MICRO / ANALYTICAL BALANCE

## DSB4T (50g/0.01mg - 220g/0.1mg)



### Product Features

1. Electro Magnetic Force Compensation
2. Touch Screen
3. Percentage Weighing
4. Multiple weight unit
5. RS232C Interface
6. Piece Counting Function
7. Calibration with Internal weight
8. Date & Time Display on Screen



SPECIFICATIONS	MODEL	DSB4T
	Max. ( Capacity )	50 / 220g
	Readability ( d )	0.01mg / 0.1mg
	Repeatability	0.02 / 0.2mg
	Linearity ( + )	0.04mg / 0.4mg
	Min. (Capacity)	1mg
	Make	DARSUN
	Verification Scale Intervals (e)	1mg
	Calibration	Motorized Internal Calibration
	Class	Class I
	Display	Touch Screen
	Response Time	4 - 6 Sec
	Pan Size (mm)	90 mm Ø
	Tare Range	Full
	Operating Temperature	15oC to 30oC
	Sensitivity Drift ( + )	2ppm / o C
	Density	Function Available
	Data Output Mode Selection	Command & Continuous Output
	Key Sound	Yes
	Weighing Chamber Height	210 mm
	Unit	g, mg oz, ct, lb, ozt, dwt, GN,
	Application Mode	PCS, %, Weighing, Animal Weighing, Check Weighing, Density, Statistics Weighing
	Baud rate Options	1200, 2400, 4800, 9600
	Interface	RS232C
	Power Supply	AC 220V / 50-60 Hz
	Dimension (LxWxH)	580 x 385 x 480mm
	Weight	13 Kg



# ANALYTICAL BALANCES

## DS X2



### Product Overview

Advanced level measurements, maximum operation comfort and countless display customization options



Communication interfaces



5" colour touch screen with customized keys layout



Parts counting



Percent weighing



Density determination



GLP procedures



Ambient conditions measurement



Dosing



Statistics



Under hook weighing



Proximity sensors



Replaceable unit



Checkweighing



Animal weighing



Peak hold



Cooperation with titrators



Multilingual menu



Formulations



Autotest



### Product Features

1. High Quality Measurements and Weighing Performance
2. Combination of easy operation and excellent weighing accuracy
3. makes DS X2 balances an ideal solution for most of the demanding applications in laboratory processes.
4. Excellent Weighing Parameters and Comfort of Operation
5. Thanks to a clear and intuitive menu layout and 5" colour touch screen, maximum comfort and incredibly easy operation are both ensured.
6. Customization via Widgets
7. DS X2 software enables designing screen widgets layout. Display
8. customization allows you to run any selected function directly from the home screen.
9. Numerous Options of Data Management
10. Extensive storage capacity enables record of all measurement data in a form of complex reports.
1. Second to None Repeatability and Compliance with USP
2. DS X2 analytical balances feature the highest measurements accuracy,
3. excellent repeatability and are compliant with USP requirements (Chapter 41 and 1251).
4. Spacious Weighing Chamber
5. Large weighing chamber enables convenient operation using laboratory vessels of different dimensions.
6. Touch-Free Operation
7. Two programmable proximity sensors can be assigned with any function or application. The given function when assigned is both run and operated touch-free.

# ANALYTICAL BALANCES

## DS X2

Model	DS 60/220.X2	DS 82/220.X2
Maximum capacity [Max]	60 g / 220 g	82 g / 220 g
Minimum load	1 mg	1 mg
Readability [d]	0.01 mg / 0.1 mg	0.01 mg / 0.1 mg
Verification scale interval [e]	1 mg	1 mg
Tare range	-220 g	-220 g
Repeatability (5% Max)*	0.015 mg (Rt ≤ 3 g)	0.015 mg (Rt ≤ 5 g)
Repeatability (Max)*	0.1 mg	0.1 mg
Linearity	± 0.06 mg / ±0.2 mg	± 0.06 mg / ±0.2 mg
Sensitivity temperature drift**	$1 \times 10^{-6} / ^\circ\text{C} \times \text{Rt}$	$1 \times 10^{-6} / ^\circ\text{C} \times \text{Rt}$
Minimum weight (U=1%, k=2)	3 mg	3 mg
Minimum weight (USP)	30 mg	30 mg
Stabilization time***	2 s	2 s
Adjustment	internal	internal
Verification	Yes	Yes
OIML Class	I	I
Display	5" capacitive colour touch screen	5" capacitive colour touch screen
Keypad	6 keys	6 keys
Protection class	IP 43	IP 43
Databases	7	7
Touch-free operation	2 programmable proximity sensors	2 programmable proximity sensors
USB-A	1	1
USB-B	1	1
RS 232	2	2
Wireless connection	802.11 b/g/n	802.11 b/g/n
Ethernet	10 / 100 Mbit	10 / 100 Mbit
Power supply	12 ÷ 16 V DC	12 ÷ 16 V DC
Power consumption	4 W	4 W
Operating temperature	+10 ÷ +40 °C	+10 ÷ +40 °C
Atmospheric humidity****	40 ÷ 80%	40 ÷ 80%
Transport and storage temperature	-20 ÷ +50 °C	-20 ÷ +50 °C
Weighing pan dimensions	ø 90 mm open-work	ø 90 mm open-work
	ø 85 mm standard (option)*****	ø 85 mm standard (option)*****
Weighing chamber dimensions	160 × 168 × 223 mm	160 × 168 × 223 mm
Weighing device dimensions	333 × 206 × 355 mm	333 × 206 × 355 mm
Net weight	5.3 kg	5.3 kg
Gross weight	7.3 kg	7.3 kg
Packaging dimensions	495 × 400 × 515 mm	495 × 400 × 515 mm

Model	DS 220.X2	DS 310.X2
Maximum capacity [Max]	220 g	310 g
Minimum load	10 mg	10 mg
Readability [d]	0.1 mg	0.1 mg
Verification scale interval [e]	1 mg	1 mg
Tare range	-220 g	-310 g
Repeatability (5% Max)*	0.07 mg (Rt ≤ 10 g)	0.07 mg (Rt ≤ 15 g)
Repeatability (Max)*	0.1 mg	0.15 mg
Linearity	± 0.2 mg	± 0.3 mg
Sensitivity temperature drift**	$1 \times 10^{-6} / ^\circ\text{C} \times \text{Rt}$	$1 \times 10^{-6} / ^\circ\text{C} \times \text{Rt}$
Minimum weight (U=1%, k=2)	14 mg	14 mg
Minimum weight (USP)	140 mg	140 mg
Stabilization time***	2 s	2,5 s
Adjustment	internal	internal
Verification	Yes	Yes
OIML Class	I	I
Display	5" capacitive colour touch screen	5" capacitive colour touch screen
Keypad	6 keys	6 keys
Protection class	IP 43	IP 43
Databases	7	7
Touch-free operation	2 programmable proximity sensors	2 programmable proximity sensors
USB-A	1	1
USB-B	1	1
RS 232	2	2
Wireless connection	802.11 b/g/n	802.11 b/g/n
Ethernet	10 / 100 Mbit	10 / 100 Mbit
Power supply	12 ÷ 16 V DC	12 ÷ 16 V DC
Power consumption	4 W	4 W
Operating temperature	+10 ÷ +40 °C	+10 ÷ +40 °C
Atmospheric humidity****	40 ÷ 80%	40 ÷ 80%
Transport and storage temperature	-20 ÷ +50 °C	-20 ÷ +50 °C
Weighing pan dimensions	ø 100 mm	ø 100 mm
Weighing chamber dimensions	160 × 168 × 227 mm	160 × 168 × 227 mm
Weighing device dimensions	333 × 206 × 355 mm	333 × 206 × 355 mm
Net weight	5.3 kg	5.3 kg
Gross weight	7.3 kg	7.3 kg
Packaging dimensions	495 × 400 × 515 mm	495 × 400 × 515 mm



# ANALYTICAL BALANCES

## DS R2 PLUS



### Product Overview

Innovative design and system solutions for standard-class products



Communication interfaces



Large LCD display with text information section



Parts counting



Percent weighing



Density determination



GLP procedures



Ambient conditions measurement



Dosing



Statistics



Under hook weighing



Totalizing



Replaceable unit



Checkweighing



Animal weighing



Peak hold



Alibi memory



Multilingual menu



Formulations



Autotest



### Product Features

#### Ergonomic Mechanical Design

Spacious weighing chamber and large open-door clearance allow easy access to the weighing pan and facilitate use of laboratory glassware of various sizes and dimensions. Improved aluminium base of the balance guarantees stability of the weighing system. DUAL-CLICK system facilitates tool-free disassembly and assembly of the weighing chamber. Locating the USB interface at the balance front makes it easier to communicate with peripherals.

#### Levelling System

Clearly visible levelling device located at the front of the weighing chamber facilitates level control.

#### Antistatic Weighing Chamber

Weighing chamber panes feature antistatic coating compensating electrostatic charges on the sample and accessories used for mass measurement.

\*Antistatic coating has been applied in balances with the readability of  $d=0.01\text{mg}$

#### Uncomplicated and Intuitive Operation

Large, easy-to-read LCD display offers not only a clear presentation of the weighing result, but also enables displaying messages related to the drying process as well as pictograms of active functions and working modes. Quick access keys located on the operation panel enable you to run a given function with just one click.

#### Data Management

DS R2 PLUS information system is based on operators, products, weighings and tares databases. All saved data can be analysed, exported, imported or exchanged between weighing instruments.

#### ALIBI Memory

Internal ALIBI memory guarantees safety and automatic record of measurements copies, it also offers possibility to preview, copy and archive data.

#### Kensington Lock

DS R2 PLUS balances are equipped with Kensington Lock, which allows to secure the device against theft.

# ANALYTICAL BALANCES

## DS R2 PLUS

TECHNICAL SPECIFICATIONS				
	DS 110.R2 PLUS	DS 82/220.R2 PLUS	DS 220.R2 PLUS	DS 310.R2 PLUS
Maximum capacity [Max]	110 g	82 g / 220 g	220 g	310 g
Minimum load	10 mg	1 mg	10 mg	10 mg
Readability [d]	0.1 mg	0.01 mg / 0.1 mg	0.1 mg	0.1 mg
Verification scale interval [e]	1 mg	1 mg	1 mg	1 mg
Tare range	-110 g	-220 g	-220 g	-310 g
Standard values				
Repeatability(5% Max)*	0.05 mg	0.012 mg	0.06 mg	0.07 mg
Repeatability(Max)*	0.06 mg	0.07 mg	0.07 mg	0.1 mg
Minimum weight (USP)	100 mg	24 mg	120 mg	140 mg
Minimum weight (U=1%, k=2)	10 mg	2.4 mg	12 mg	14 mg
Permissible values				
Repeatability(5% Max)*	0.07 mg	0.015 mg	0.08 mg	0.1 mg
Repeatability(Max)*	0.1 mg	0.1 mg	0.1 mg	0.15 mg
Linearity	± 0.2 mg	± 0.05 mg / ± 0.2 mg	± 0.2 mg	± 0.3 mg
Stabilization time***	2 s	2 s	2 s	2.5 s
Adjustment	internal	internal	internal	internal
Verification	Yes	Yes	Yes	Yes
OIML Class	I	I	I	I
Display	LCD (with backlight)	LCD (with backlight)	LCD (with backlight)	LCD (with backlight)
Keypad	14 keys	14 keys	14 keys	14 keys
Protection class	IP 43	IP 43	IP 43	IP 43
Databases	5	5	5	5
USB-A	1	1	1	1
USB-B	1	1	1	1
RS 232	2	2	2	2
Wi-Fi® ****	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n
Power supply	12 ÷ 16 V DC	12 ÷ 16 V DC	12 ÷ 16 V DC	12 ÷ 16 V DC
Power consumption	3 W	3 W	3 W	3 W
Operating temperature	+10 ÷ +40 °C	+10 ÷ +40 °C	+10 ÷ +40 °C	+10 ÷ +40 °C
Atmospheric humidity*****	40 ÷ 80%	40% ÷ 80%	40 ÷ 80%	40 ÷ 80%
Transport and storage temperature	-20 ÷ +50 °C	-20 ÷ +50 °C	-20 ÷ +50 °C	-20 ÷ +50 °C
Weighing pan dimensions	ø 100 mm	ø 90 mm open-work ø 85 mm standard (option)*	ø 100 mm	ø 100 mm
Weighing chamber dimensions	160 × 168 × 227 mm	160 × 168 × 227 mm	160 × 168 × 227 mm	160 × 168 × 227 mm
Weighing device dimensions	333 × 206 × 355 mm	333 × 206 × 325 mm	333 × 206 × 355 mm	333 × 206 × 355 mm
Net weight	5.3 kg	5.3 kg	5.3 kg	5.3 kg
Gross weight	7.3 kg	7.3 kg	7.3 kg	7.3 kg
Packaging dimensions	495 × 400 × 515 mm	495 × 400 × 515 mm	495 × 400 × 515 mm	495 × 400 × 515 mm

# VERTICAL STEAM STERILIZER

## DSL-G SERIES



### Product Overview

Suitable for laboratories in industrial and mining enterprises, colleges and universities, medical and health units etc., for culture experiments of microorganisms and bacterial.



### Product Features

1. Hand wheel translation and quick opening structure
2. High quality stainless steel material
3. Microcomputer automatic control, arbitrary setting sterilization parameters.
4. Safety interlocking device
5. Digital display and Touch buttons
6. Standard test interface
7. Self-expanding seal
8. With drying function
9. With automatic protection function: over temperature protection; over pressure protection; low water level protection; anti dry burning.
10. With stainless steel bucket or basket
11. Buzzer reminder after sterilization, automatic stop.
12. Automatic discharge of cold air, automatic steam exhaust after sterilization.

- \* Optional external printer
- \* Optional automatic water



**Multifunctional  
Automatic With Drying**

Model	DSL-35G	DSL-50G	DSL-75G	DSL-100G
Volume	35 L	50 L	75 L	100 L
Power	3.5 KW	3.5 KW	4.5 KW	4.5 KW
Voltage	AC 220 V, 50 HZ			
Design Pressure	0.25MPa			
Design Temperature	139°C			
Rated working pressure	0.22 Mpa			
Rated working temperature	134 °C			
Sterilization temperature	50 °C - 134 °C			
Sterilization time setting range	4 - 120 min			
Drying time setting range	0 - 240 min			
Chamber volume (mm)	0 350 x 400	0 350 x 525	0 400 x 625	0 450 x 650
Bucket dimension (mm)	0 330 x 320	0 330 x 460	0 380 x 560	0 420 x 540
Basket dimension (optional)	0 320 x 350	0 320 x 240 x 2	0 360 x 280 x 2	0 410 x 300 x 2
Outer dimension (mm)	498 x 498 x 940	498 x 498 x 1110	570 x 570 x 1185	588 x 588 x 1255
Packing size (L x W x H)(mm)	580 x 630 x 1130	580 x 630 x 1230	630 x 680 x 1290	690 x 650 x 1410
Gross / Net weight	79 / 581%	106 / 80 kg	120 / 90 kg	133 / 106 kg

# VERTICAL STEAM STERILIZER

## DSL-B SERIES



### Product Overview

Suitable for laboratories in industrial and mining enterprises, colleges and universities, medical and health units etc., for culture experiments of microorganisms and bacterial.



### Product Features

1. Hand wheel translation and quick opening structure
2. High quality stainless steel material
3. Microcomputer automatic control, arbitrary setting sterilization parameters.
4. Safety interlocking device
5. Digital display and Touch buttons
6. Standard test interface
7. Self-expanding seal
8. With drying function
9. With automatic protection function: over temperature protection; over pressure protection; low water level protection; anti dry burning.
10. With stainless steel bucket or basket
11. Buzzer reminder after sterilization, automatic stop.
12. Automatic discharge of cold air, automatic steam exhaust after sterilization.

**\*\* Optional automatic water**



**Digital Displayed  
Automatic Type**

Model	DSL-35B	DSL-50B	DSL-75B	DSL-100B
Volume	35 L	50 L	75 L	100 L
Power	3.5 KW	3.5 KW	4.5 KW	4.5 KW
Voltage	AC 220 V, 50 HZ			
Design Pressure	0.25MPa			
Design Temperature	139°C			
Rated working pressure	0.22 Mpa			
Rated working temperature	134 °C			
Sterilization temperature	50 °C - 134 °C			
Sterilization time setting range	4 - 120 min			
Drying time setting range	0 - 240 min			
Chamber volume (mm)	0 350 x 400	0 350 x 525	0 400 x 625	0 450 x 650
Bucket dimension (mm)	0 330 x 320	0 330 x 460	0 380 x 560	0 420 x 540
Basket dimension (optional)	0 320 x 350	0 320 x 240 x 2	0 360 x 280 x 2	0 410 x 300 x 2
Outer dimension (mm)	498 x 498 x 940	498 x 498 x 1110	570 x 570 x 1185	588 x 588 x 1255
Packing size (L x W x H)(mm)	580 x 630 x 1130	580 x 630 x 1230	630 x 680 x 1290	690 x 650 x 1410
Gross / Net weight	79 / 581%	106 / 80 kg	120 / 90 kg	133 / 106 kg

# VERTICAL STEAM STERILIZER

## DSM-75



### Product Overview

Suitable for laboratories in industrial and mining enterprises, colleges and universities, medical and health units etc., for culture experiments of microorganisms and bacterial.



### Product Features

1. Automatic protection function: over-temperature protection, over-pressure venting protection
2. After sterilization, the buzzer will remind and the machine will stop automatically
3. Microcomputer automatic control, arbitrary set sterilization parameters
4. Automatically discharge cold air and steam after sterilization
5. Hand wheel translation type quick opening door structure
6. Low water level protection to prevent dry burning
7. High quality stainless steel material
8. Equipped with standard test interface
9. FRP door cover anti scald protection
10. Stainless steel bucket (or net basket)
11. Digital display, touch button



Product Model		DSM-75
Nominal working pressure		0.22MPa
Rated Functioning Temperature		134°C
Temperature Range		50~134°C
Time Range		4~120min
Rated voltage/frequency		AC220V/50Hz
Rated power		4.5KW
Net Capacity		75L
Sterilization chamber Dimension		Ø400X625
Internal Dimension		Ø380X540
Net Basket Dimension (optional)		Ø360X280X2
Net weight	KG	90
	lbs	198
Gross weight	KG	120
	Lbs	264
Boundary Dimension	LXWXH mm	525X525X1200
	LXWXH In	20X20X47
Packing Dimension (20'/40'/40'H)	LXWXH mm	630X680X1290
	LXWXH In	25X27X51
Container Load		27/54/108
Interior material		SUS304
Cabinet Type		Vertical(Open up)
Ambient Temperature		5~40°C
Heating Type		Electric heating tube
Cold Air Removal Method		Gravity displacement
Water-Injection Method		Manual
Drainage Method		Manual
Door Opening Method		Handwheel horizontal opening
Safety protection		Anti-dry burning, over-pressure protection, over-temperature protection, over-current protection, sensor disconnection detection.
Sensor Type		PT100
Controller		Microcomputer
Display Screen		LED
Accessories details		Manual, tray, stainless steel inner tube, cover, vent tube





# TABLE TOP STEAM STERILIZER

## DSM-23



### Product Overview

It is suitable for the sterilization of equipment, dressings, rubber, liquid, glassware, culture medium, waste and other items in medical and health and biomedical research departments at all levels such as pharmaceuticals, food universities, animal husbandry, disease control, and hospitals.



### Product Features

1. Automatic protection function: over temperature protection; over pressure protection low water level protection, anti-dry burning, safety door lock
2. After sterilization, the buzzer will remind and the machine will stop automatically
3. Automatically discharge cold air and steam after sterilization
4. Built-in steam generator to quickly provide saturated steam.
5. High-quality stainless steel liner, sealed cover
6. Door lock safety interlock device
7. BD test, HELIX test, vacuum test
8. Equipped with standard test interface
9. Open top water tank
10. European Class B standard
11. Triple pulsation vacuum
12. LCD display, touch button
13. Microcomputer control



Product Model		DSM-23
Nominal working pressure		0.22MPa
Rated Functioning Temperature		134℃
Temperature Range		115-134℃
Tank Capacity		2.5L
voltage/frequency		AC220V/50Hz
Power		2200W
Capacity		23L
Sterilization chamber Dimension	mm	Ø250*452
	In	Ø9.8*17.8
Net weight	KG	53Kg
	lbs	117
	KG	60kg
Gross weight	lbs	132
Boundary Dimension	(LXWXH)mm	490*455*690
	(LXWXH)In	19*18*27
Packing Dimension	(LXWXH)mm	560x510x760
	(LXWXH)In	22x20x30
Container Load		120/240/270
Cabinet Type		Horizontal (open forward)
Ambient Temperature		5～40℃
Heating Type		vapor generator
Cold Air Removal Method		Pulsation vacuum
Water-Injection Method		Automatic
Drainage Method		Manual
Door Opening Method		Manual
Safety protection		Anti-dryburning, over-pressure protection, over-temperature protection, over-current protection, sensor disconnection detection.
Sensor Type		PT100
Controller		Microcomputer
Display Screen		LCD
Accessories details		Manual, instrument tray, instrument tray holder, door adjustment wrench, drain pipe



Display panel

Digital dynamic display, easy to operate

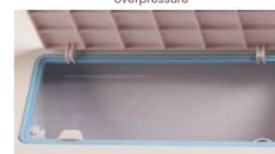


Stainless steel inner



Safety valve

Pressure safety protection, automatic pressure relief of overpressure



Water storage tank

built-in open water tank for easy cleaning, repeated operation and prompt of water shortage

# GEL DOCUMENTATION SYSTEM (CLASSICAL)



## Product Features

1. UP to 20 Megapixels
2. Auto Focus
3. Real White LED transmission
4. Numeric Focus and Aperture



SPECIFICATION			
Model		DSH-510	DSH-520
Digital Camera	Resolution	5Megapixels, 2592*1944	20Megapixels, 4800*4440
	Dynamic Range	4.8OD	
	Pixel density	16bit (65536 Grey Scales)	
Lens	Motorized Lens	F1.2 Motorized Lens	
	Resolution	20 Megapixels	
	Control	Numeric Focus controlled via Software	
Light Source	UV transmission	302nm as standard, Image Area : 21x26cm (Optional 254nm, 365nm)	
	White LED transmission	Real white LED transmission, Image Area:19x26cm	
	Optional Blue LED transmission	Optional Blue LED transmission, Image Area:19x26cm	
Filter system	Filter	Standard filter for gel doc application	
Software	Capture	SHSTCapture software	
	Analysis	SHSTAnalysis software	

# CO<sub>2</sub> INCUBATOR DS-191CHX



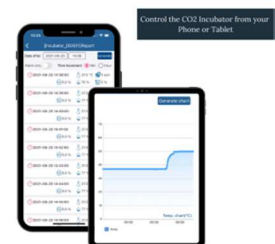
## Product Overview

The CO<sub>2</sub> Incubator (DS-191CHX) is an air-jacketed, dry-wall insulation CO<sub>2</sub> Incubator with temperature, CO<sub>2</sub> concentration, and humidity functions. With this incubator, customers have the ability to visualize performance and data set on the DS-191CHX Remote Monitoring accessory and app.



## Product Features

1. Chamber HEPA air filtration provides class 100 purification
2. Infra-Red (IR) sensor precisely and reliably detects CO<sub>2</sub> concentration
3. Easy sterilization process at 140°C dry heat
4. Temperature controlled door prevents condensation and provides higher temperature stability and uniformity
5. Intuitive 7" hi-res capacitive touch screen
6. Includes 4 shelves (can hold up to 13)
7. Smart capabilities allow user to control CTI CO<sub>2</sub> Incubator from a phone or tablet
8. Visualize performance and changes over time with function performance graphs
9. Audible and visual alarms alert user if parameters fluctuate outside set ranges



Model	DS-191CHX
Temp. Range	Room Temp. Plus 5°C ~ 60°C
Capacity	191L
Temp. Accuracy	0.1°C
Temp. Uniformity	+0.3°C (@37°C)
CO <sub>2</sub> Sensor	IR
CO <sub>2</sub> Control	0~20%
CO <sub>2</sub> Control	0.1%
Temp. recovery opens 30s	<6min (@37°C)
CO <sub>2</sub> recovery opens 30s	<6min (@5%)
Humidity Method	RH Control
Max. Humidity	Max. Humidity
RH Control Range	Ambient Humidity +10%-90%
RH Set Accuracy	1%
RH Control Accuracy	1%
RH Uniformity	+2%
RH Sensor	Capacitive humidity sensor
Disinfection	90°C Moist Heat Sterilization
Door Open Direction	Rightward
Display	7 Color Capacitance Touch Screen
Touch Screen Type	Capacitance
Screen auto-lock	Yes
Screen auto-sleep	Screen sleeps after set inactive time
Protect Set Parameters	Passwords Protect
Data Display on Interface	In 7 Days

## ACCESSORIES **DS-191CHX**



CO2 Inlet HEPA Filter  
1 Year Service Life  
Model: CIA15



Remote Monitoring for  
CO2 Incubator  
Model: CIA19



Shelves  
CO2 Incubator  
Model: CIA24



Chamber HEPA Filter  
1 Year Service Life  
Model: CIA13



Caster Wheels  
Model: CIA28



CO2 Cylinder Pressure Regulator  
Model: CIA25

## BENCHTOP EQUIPMENT COMPATIBLE



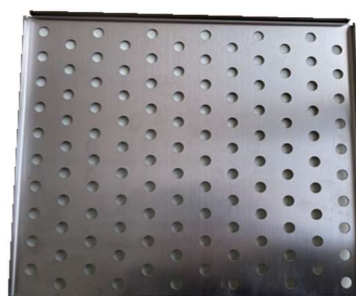
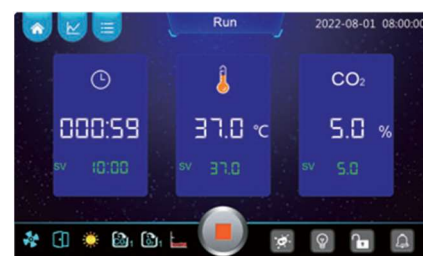
CO2 Resistant Mini Roller  
Model: DS-01UA/DS-03UA



CO2 Resistant Orbital Shaker  
Model: DSC-26M

# CO<sub>2</sub> INCUBATOR BCI SERIES

MODEL	DS-50Co2	DS-180Co2	DS-260Co2
Temperature Control Method	Direct heat & Air Jacket		
Temperature Range	RT+3-60°C		
Temperature Uniformity	<±0.25°C		
Temperature Accuracy	<0.1°C		
Temperature Recovery Time	<4 Mins		
Ambient Temperature Range	18-34°C		
CO2			
CO2 Range	0 ~ 20%		
CO2 Accuracy	± 0.1%		
CO2 Sensor	Infra-red (IR)		
CO2 Recovery Time*	<4 Mins	<4 Mins	<5 Mins
Inlet Pressure	0.8-1.2 bar		
HUMIDITY			
Humidification Method	Humidity Pan		
Humidity Range*	High model: >90% RH, Low models>80%RH		
CONTAMINATION			
Contamination method	Dry Heat		
Contamination Temperature	150°C		
Contamination Time	<10h		
Inlet Filter	<0.2µm		
Inner Filter	High temperature resistant HEPA filter, no need to remove during sterilization		
Heater	6 side heating		
Main Body	Antibacterial powder, antibacterial properties >99%		
PHYSICAL CONSTRUCTION			
Interior Volume	50L	185L	260L
External dims (WxDxH)	500*635*690	685*820*870	745*820*1055
Internal dims (WxDxH)	310*380*470	500*570*650	555*565*835
Interior Material	Stainless Steel type 304		
Number of shelves	2	3	3
Shelves Area	305*270 mm	496*440 mm	550*460 mm
Maximum Load per Shelf	20kg		
Voltage	220-240VAC 50/60Hz		
Maximum power consumption	500W	1200W	1500W
Optional function	i. Co2 Control 1-21% ii. Three inner doors or six inner doors iii. Lot module iv. Humidity Display v. Cylinder Switching vi. Removable base vii. Relief valve		





# LAMINAR AIR FLOW CABINET

## DS113 SERIES



Vertical / Horizontal



### Product Features

1. Vertical /Horizontal models.
2. Blower ensures noiseless operation.
3. Ultra low Vibration, Noise level not more than 65 db at 1 meter from face of the equipment.
4. Positive pressure built inside the chamber for complete protection of the product.
5. Air is drawn through Pre-Filter and is made to pass through high effective ULPA filters.
6. ULPA filter with particle retention of 0.1µm and larger with an efficiency of 99.99%
7. The outer body of the cabinet is made of thick Mild Steel (G.I.) duly powder coated for lasting finish.
8. Internal chamber made of thick Stainless Steel 304 grade.
9. The working table made of heavy duty thick Stainless Steel 304 grade.
10. Smooth finish leak proof interior and exterior ensures no risk of cuts to the user or maintenance personnel.
11. Manual Sliding front door with handles made of UV proof safety glass / Acrylic with trouble free mechanism of counter balanced weight.
12. Side panels made of UV proof safety glass / Acrylic.
13. Built in U.V. Germicidal light helps in killing of bacteria and other microorganism. With Interlock function – UV lamp can only be switched on when the front window is closed ensuring operator safety.
14. Working area is illuminated by slim tube lights fitted to the unit.
15. High performance noise abated statically and dynamically balanced centrifugal blower units sized to generate adequate air flow volume over the entire surface of filter. Operates with minimum noise level and vibration.
16. Height of the working table (2.5ft with base stand) provides comfortable "SIT DOWN" working position for the operator.
17. Suitable Leg Space to work freely.
18. Base stand with heavy duty lockable castor wheels for easy portability.
19. Supplied complete with cord & plug to work on 230VAC, 50Hz supply.

Model		DSB-1200V
Flow Type		Vertical
Voltage/Frequency(V /Hz)		AC 220/50
Power(W)		1200
Vibration Amplitude (UM)		2
Exhaust Filter Typical Efficiency		H13 HEPA, 99.99% @0.3µm
Average Velocity (M/S)		0.2-0.5
Fluorescent Lamp Intensity(Lux)		2::300
Net/Gross Weight (approx )	kg	150/178
	lbs	330/392
Sound Level dB(A)		62
Internal Dimensions (W*D*H)	mm	1300*516*520
	in.	51.2*20.3*20.5
External Dimensions (W*D*H)	mm	1370*611*1754
	in.	53.9*24.1*69.1
Packing Dimensions (W*D*H)	mm	1505*745*1280
	in.	59.3*29.3*50.4
Cleanliness Classification		ISO 14644.1 Class 5
Container Load(20'/40'/40'H)		10/25/25

#### MICROPROCESSOR BASED AUTOMATIC CONTROLLER

Dedicated Microprocessor based controller with LCD display of values to ensure the user knows whether or not the cabinet is working under set operating conditions. Fitted in open able front panel for easy maintenance.

#### FEATURES:-

User friendly operation  
 Bright light LCD displays all parameter including date & time, UV/FL lamp on/off.  
 UV hour meter/ DOP Hepa filter testing.  
 Separate Switches for fan, lights & UV light.  
 Air flow velocity Display  
 Built in UV timer helps in the decontamination by switching ON the UV tube for a certain time period (0-99 hrs.)



# BIOLOGICAL SAFETY CABINET

## DS-IIA2 SERIES



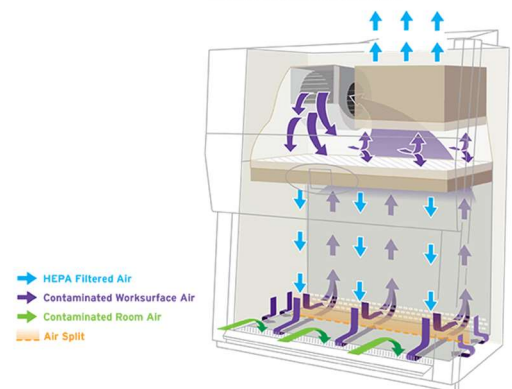
### Product Features

1. User Friendly Ergonomic Design.
2. Controlled Environment Particulate Free Product Protection.
3. Work area surrounded by negative pressure, double wall plenums for protection.
4. Aerodynamic designed airflow grille maintains safety by preventing blockage.
5. Silent Vibration
6. Free Blower ensure noiseless operation.
7. Sound level no more than 65 dbA.
8. The Unit is suitable for CLASS 100 conditions.
9. 70% of the air is re-circulated through the HEPA filter.
10. The contaminated air is drawn by the blower through the plenum of the cabinet.
11. 30% of the air is exhausted from work area.
12. Filtered Exhaust - protects ambient environment, and avoids build up, air borne particles.
13. The exhaust of Safety Cabinet is connected to the Virus Burn out Unit for product and personnel protection.
14. Air is drawn through Pre-Filter and is made to pass through high effective HEPA (High Efficiency Particular Air) filters.
15. The efficiency of HEPA Filter is greater than 99.97% down to 0.3 micron.
16. Basic material is Electro-galvanized steel (G.I.) /Stainless steel (304/316 grade)/Wooden (as ordered).
17. Working table is made of Stainless Steel Sheet (SS-304 grade).
18. Window opens to 20cm±5mm working height with predefined locking device.
19. Built in U.V. Germicidal light
20. Facilitates sterilization of working area before and after use. Cock - for gas, air or vacuum, (only 1 no.) is provided.
21. Working area is illuminated by fluorescent lighting fitted to the unit.
22. The blower and motor assembly is statically and dynamically balanced of 1/5 H.P. capacity operates with minimum noise level.
23. Height of the working table provides comfortable "SIT DOWN" working position for the operator.
24. Supplied complete with cord & plug to work on Single Phase 220 / 230 volts A.C. supply.



**Class II, Type A2**

Air in-flow 70% Recirculated vs. 30% Exhausted



Model	DSC-600IIA2	DSC-1000IIA2	DSC-1300IIA2	DSC-1600IIA2
Cleanliness Level	HEPA ISO 4 (Class 10 Cleanroom)			
Supply Air Velocity (m/s)	0.33±0.025			
Inflow Air Velocity (m/s)	0.53±0.025			
Noise (dB)	≤67			
Vibration Semi-Peak Value (µm)	≤5			
Voltage/Maximum Power Consumption	AC 220V/50Hz/0.8kW			
Personnel Biosecurity & Protection	Impact sampler ≤10 CFU/Slit sampler ≤5 CFU			
Product Biosecurity & Protection	Petridish samples ≤5 CFU			
Cross-Contamination Protection	Petridish samples ≤2 CFU			
Working Area Dimensions (mm)	600×500×520	1000×520×640	1300×520×640	1600×520×640
Overall Dimensions (mm)	740×650×1850	1165×760×2200	1465×760×2200	1765×760×2200
Illumination (LX)	≥800			
Weight (kg)	110			
Number of Operators	1			
Draft Direction	Top			

# BIOLOGICAL SAFETY CABINET

## DS-IIB2 SERIES



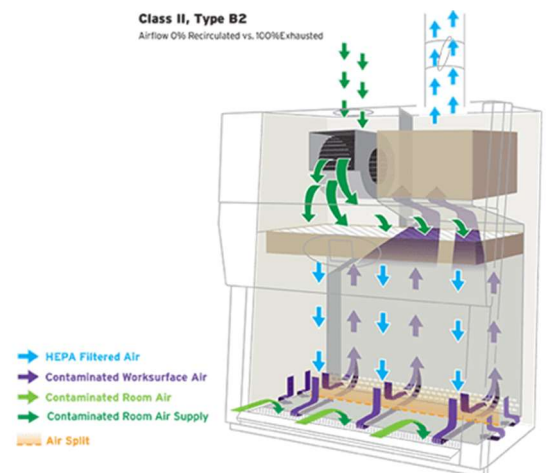
### Product Features

1. Confirms the Air cleanliness standard ISO 14644-5 (Class 100)
2. Free Blower ensures noiseless operation.
3. Sound level no more than 60 decibel  $\pm$  5%.
4. Microprocessor controlled, Class II Bio Safety Cabinet (Type B2)
5. All contaminated air paths remains in negative pressure.
6. The exhaust plenum remains under negative pressure & hard ducted to the outside environment.
7. Ergonomically angled supply filter to match cabinet profile for down flow uniformity.
8. Main Supply & Exhaust filter - Mini pleat HEPA filter with particle retention 99.99% for 0.3 micron particles.
9. Robust construction outer body made of Electro galvanized steel duly powder coated.
10. Working chamber is made of stainless steel 304.
11. Single piece removable stainless steel 304 perforated working surface.
12. Smooth finish interior and exterior ensures no risk of cuts to the user or maintenance personnel.
13. Stand with lockable castor wheel for easy movement.
14. The front vertical sliding sash made of transparent toughened glass (5-mm thickness) with smooth counter balanced drive.
15. Built in "PHILIPS / OSRAM" U.V. Germicidal light helps in killing of bacteria and other microorganism.
16. Working area is illuminated by bright uniform Fluorescent light (1x40W).
17. Duly dynamically balanced highly efficient centrifugal blower with 0.25 HP Electric Motor Mounted on anti vibration pad 1440rpm motor unit sized to generate adequate air flow volume over the Filter.
18. Height of the working table provides comfortable "SIT DOWN" working position for the operator.
19. Gas tap-one towards the back of the cabinet.
20. Magnehelic gauge for pressure monitoring.
21. 2 Nos-15/5A electrical outlets inside the work space.
22. Supplied complete with cord & plug to work on 220-240VAC, 50Hz supply.



CLASS II TYPE B2

Class II, Type B2  
Airflow 0% Recirculated vs. 100% Exhausted



MODEL NO	DS-1000-IIB2	DS-1300-IIB2	DS-1600-IIB2
Cleanliness level	HEPA: ISO Class 4 (Class10)		
Supply air velocity	0.33 $\pm$ 0.025m/s		
Inflow air velocity	0.53 $\pm$ 0.025m/s		
Noise	$\leq$ 67dB		
Vibration semi-peak value	$\leq$ 5 $\mu$ m		
Power / Maximum power consumption	AC 220V / 50HZ / 1KW		
Biosecurity personnel protection	All impact sampler samples CFU $\leq$ 10, Slit sampler CFU $\leq$ 5		
Product protection	All petri dish samples CFU $\leq$ 5		
Cross-contamination protection	All petri dish samples CFU $\leq$ 2		
Dimension of working area	1000x520x640 mm	1300x520x640 mm	1600x520x640 mm
Overall dimension	1165x760x2200 mm	1465x760x2200 mm	1765x760x2200 mm
Illumination	$\geq$ 900LX		
Weight	240kg		
Number of Operator	Single		
Draft direction	Top		

# BENCH TOP FREEZE DRYER

## DSFD SERIES



### Product Overview

Darsun freeze dryer is specialized designed for small batch test in laboratory. The Bench top and Console freeze dryers are with advanced design and occupies small area.



### Product Features

- 7" colorful touch panel, can display the product samples temperature, cold trap temperature and vacuum etc in digital and curve.
- Touch panel with tilt design conforms to ergonomics and operate more comfortably.
- Condenser temperature of  $-80^{\circ}\text{C}$  is optional (Except bench top models) ;
- Shelf heating function is optional;
- Accessories for different chamber and manifold are optional;
- The vacuum pump is standard accessory, which is packed in a separate package, needs to be installed in user's site independently,



BENCH TOP FREEZE DRYER

Model	DSFD-10S	DSFD-10T	DSFD-10P	DSFD-10PT
Image				
Type	Standard chamber	Stoppering chamber	Standard chamber with 8 port manifold	standard stoppering chamber with 8 port manifold
Final condenser temp ( $^{\circ}\text{C}$ )	-55	-55	-55	-55
Vacuum Degree (Pa)	<10	<10	<10	<10
Condenser volume (L)	9	9	9	9
Freeze drying area ( $\text{m}^2$ )	0.12	0.09	0.12	0.09
Ice condenser capacity ( $\text{Kg}/24\text{h}$ )	3	3	3	3
Qty of shelf	4	3	4	3
Material loading capacity/shelf (ml)	300	300	300	300
Material loading capacity (ml)	1200	900	1200	900
Freeze drying time (h)	24	24	24	24
Manifold	/	/	8 pieces	8 pieces
USB Interface	Y	Y	Y	Y
Drying Chamber(standard)	Transparent acrylic			
Vacuum Pump(standard)	Model: 2XZ-2, Speed: 2L/S (China-Made)			
Control System	Microprocessor, touch screen			
Power supply (V/Hz)	220V/50Hz, 60Hz			
Exterior dimension (WxDxH mm)	582*625*530/960			
Note	Shelf(plate) heating and cold trap(ice condenser) defrosting function are optional;			
	The vacuum pump is independently packed in a separate package;			
	The freeze dryer shipment includes vacuum pump, standard drying chamber and all accessories, like valve, flask etc, if needed			

# CONSOLE FREEZE DRYER

## DSFT SERIES



### Product Overview

Darsun freeze dryer is specialized designed for small batch test in laboratory. The Bench top and Console freeze dryers are with advanced design and occupies small area.



### Product Features

- 7" colorful touch panel, can display the product samples temperature, cold trap temperature and vacuum etc in digital and curve.
- Touch panel with tilt design conforms to ergonomics and operate more comfortably.
- Condenser temperature of -80°C is optional (Except bench top models) ;
- Shelf heating function is optional;
- Accessories for different chamber and manifold are optional;
- The vacuum pump is standard accessory, which is packed in a separate package, needs to be installed in user's site independently.



CONSOLE FREEZE DRYER

Model	DSFT-12S	DSFT-12T	DSFT-12P	DSFT-12PT
IMAGE				
Type	Standard chamber	Stoppering chamber	Standard chamber with 8 port manifold	standard stoppering chamber with 8 port manifold
Final condenser temp (°C)	-55 or -80	-55 or -80	-55 or -80	-55 or -80
Vacuum Degree (Pa)	<10	<10	<10	<10
Condenser volume (L)	9	9	9	9
Freeze drying area (m2)	0.12	0.09	0.12	0.09
Ice condenser capacity (Kg/24h)	3	3	3	3
Qty of shelf	4	3	4	3
Material loading capacity/shelf (ml)	300	300	300	300
Material loading capacity (ml)	1200	900	1200	900
Freeze drying time (h)	24	24	24	24
Manifold	/	/	8 pieces	8 pieces
USB Interface	Y	Y	Y	Y
Drying Chamber(standard)	Transparent acrylic			
Vacuum Pump(standard)	Model: 2XZ-2, Speed: 2L/S (China-Made)			
Control System	Microprocessor, touch screen			
Power supply (V/Hz)	220V/50Hz,60Hz			
Exterior dimension (WxDxH mm)	480*620*920/1370			
Note	Shelf(plate) heating and cold trap(ice condenser) defrosting function are optional;			
	The vacuum pump is independently packed in a separate package;			
	The freeze dryer shipment includes vacuum pump, standard drying chamber and all accessories, like valve, flask etc, if needed			

# CONSOLE FREEZE DRYER

## DSFT SERIES



### Product Overview

Darsun freeze dryer is specialized designed for small batch test in laboratory. The Bench top and Console freeze dryers are with advanced design and occupies small area.



### Product Features

1. 7" colorful touch panel, can display the product samples temperature, cold trap temperature and vacuum etc in digital and curve.
2. Touch panel with tilt design conforms to ergonomics and operate more comfortably.
3. Condenser temperature of -80°C is optional (Except bench top models) ;
4. Shelf heating function is optional;
5. Accessories for different chamber and manifold are optional;
6. The vacuum pump is standard accessory, which is packed in a separate package, needs to be installed in user's site independently.



Model	DSFT-18S	DSFT-18T	DSFT-18P	DSFT-18PT
IMAGE				
Type	Standard chamber	Stoppering chamber	Standard chamber with 8 port manifold	standard stoppering chamber with 8 port manifold
Final condenser temp (°C)	-55 or -80	-55 or -80	-55 or -80	-55 or -80
Vacuum Degree (Pa)	<10	<10	<10	<10
Condenser volume (L)	23	23	23	23
Freeze drying area (m2)	0.18	0.135	0.18	0.135
Ice condenser capacity (Kg/24h)	6	6	6	6
Qty of shelf	4	3	4	3
Material loading capacity/shelf (ml)	450	450	450	450
Material loading capacity (ml)	1800	1350	1800	1350
Freeze drying time (h)	24	24	24	24
Manifold	/	/	8 pieces	8 pieces
USB Interface	Y	Y	Y	Y
Drying Chamber(standard)	Transparent acrylic			
Vacuum Pump(standard)	Model: 2XZ-2, Speed: 2L/S (China-Made)			
Control System	Microprocessor, touch screen			
Power supply (V/Hz)	220V/50Hz,60Hz			
Exterior dimension (WxDxH mm)	560*710*950/1390			
Note	Shelf(plate) heating and cold trap(ice condenser) defrosting function are optional;			
	The vacuum pump is independently packed in a separate package;			
	The freeze dryer shipment includes vacuum pump, standard drying chamber and all accessories, like valve, flask etc, if needed			



# PILOT FREEZE DRYER

## DSFD SERIES



### Product Overview

Console/Pilot production freeze dryer is a small in-situ freeze-drying equipment. It is applied not only in pharmaceutical pilot workshop and small batch production but also in food or medicinal freeze-drying process.



### Product Features

1. Situ freeze-drying technology is one of advanced international constructor design which avoid the contamination during materials transfer and realize the dry sublimation automatically. Pilot freeze dryer is with rack heating programmable function and memory freeze-drying curve which convenient users to get the freeze-drying production technology.
2. It is divided into standard type and gland type.



PILOT FREEZE DRYER

Model	DSFD-20S	DSFD-30T	DSFD-50S	DSFD-50T	DSFD-100S	DSFD-100T	DSFD-200S	DSFD-200T
Type	Standard	Top-press	Standard	Top-press	Standard	Top-press	Standard	Top-press
Shelf temp (°C)	-50 ~ 70	-50 ~ 70	-50 ~ 70	-50 ~ 70	-50 ~ 70	-50 ~ 70	50 ~ 70	50 ~ 70
Final condenser temp (°C)	-80	-80	-80	-80	-80	-80	-80	-80
Vacuum Degree (Pa)	<10	<10	<10	<10	<10	<10	<10	<10
Freeze drying area (m <sup>2</sup> )	0.24	0.3	0.5		1		2	
Condenser capacity (Kg/24h)	6.5		10		15		30	
Shelf specification (L*W*H mm)	300*400*15	295*335*15	360*476*20		360*480*15	600*480*15	500*900*15	
Qty of shelf	2	3	4	4	6	4	6	6
Distance between shelves (mm)	80		70	95	80	80	100	
Liquid material loading capacity (L)	4.5	4	10	8	15		30	
Temperature uniformity (°C)	±1	±1	±1	±1	±1	±1	±1	±1
Defrost function	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
USB Interface	Y	Y	Y	Y	o	Y	Y	Y
Control System	Microprocessor, touch screen		Microprocessor, touch screen		Microprocessor, touch screen		Microprocessor, touch screen	
Penicillin bottle Φ22	760	805	1408	1056	2016	2016	4100	4100
Penicillin bottle Φ16	940	1550	2728	2046	3960	3960	7800	7800
Penicillin bottle Φ12	2120	2800	4920	3690	7200	7200	14400	14400
Power supply (V/Hz)	220V/50Hz, 60Hz		220V/50Hz, 60Hz 380V/50Hz, 60Hz		220V/50Hz, 60Hz 380V/50Hz, 60Hz		380V/50Hz, 60Hz	
Exterior dimension (WxDxH mm)	1200*750*1250	1200*750*1600	1200*850*1500	1200*850*1850	1500*850*1600	1500*850*1950	2100*850*1800	2100*850*2100



# BENCHTOP SHAKER

DSY-304



DSF-334



DSQ-344



## Product Overview

### Benchtop Orbital Shaker

The DSY-304 provides a smooth uniform circular motion with an orbit of 30mm. The shaker can be used in incubators and warm room if the temperature is not higher than 50°C.

The standard cradle platform can turn DSY-304 unit into a very effective mini platform shaker, which allows for different combinations of vessels offering maximum versatility. Alternatively, the tray is interchangeable with flask clamp tray (DSF-334) or non-slip mat tray (DSQ-344).

Speed is variable from 30 to 300rpm, with shaking times can be set to run from 0-500hours, or set for continuous operation. The non-volatile memory restores all settings after power failure.

### Benchtop Reciprocal Shaker

The DSF-334 lab scale platform shaker has a powerful yet quiet shaking mechanism that has been designed for problem free continuous use. This unit provides a versatile linear shaking action with unique 4 level stroke adjustment from 20, 24, 30 to 40mm, ideal for most extracting applications.

Speed is fully variable from 30-300rpm, and is set digitally for consistency. The speed is microprocessor controlled and accurately maintained even over long runs. The built-in timer can be set from 0-500hours. After the timer has counted down, the shaker stops and sounds an alert. The flask clamp tray is fitted as standard, while can be interchanged with non-slip mat tray or cradle platform.

### Benchtop See Saw Rocker

DSQ-344 has a see-saw rocking action that creates a wave motion within vessels such as culture flask, petri dishes etc. one unique feature of this unit is DSQ-344 provides 4 level of tilt angles from 5°, 8°, 10° and 12°, ideal for washing.

The speed is microprocessor controlled, variable from 20-80rpm. The model is supplied with a non-slip mat. The large LCD screen with user-friendly digital keypad ensures clear readout and easy operation. Like all other benchtop shakers, all settings of speed and time are encrypted to prevent unauthorized changes.

Model	DSY-304	DSF-334	DSQ-344
Action Mode	Orbital	Reciprocal	Rocker
Speed Range (/min)	30-300 rounds	30-300 strokes	20-80 tilts
Speed Variation (/min)	±1 round	±1 stroke	±1 tilt
Stroke	Ø30 mm	20, 24, 30, 40 mm	5°, 8°, 10°, 12°
Tray Dimensions (mm)	330x350	330x350	330x350
Accessory Included	Rubber Bar Tray OR Clamp Tray		Tray with non-slip mat
Timer	1 minute to 500 hours	1 minute to 500 hours	1 minute to 500 hours
Maximum Load (kg)	3.5	3.5	4
Overall Dimensions (mm) (WxDxH)	400x350x235	400x350x160	400x360x185
Packing Dimensions (mm) (WxDxH)	490x490x420	490x490x400	490x490x365
Net / Gross Weight (kg)	25/37	14/26	10/20
Safety Features	Non-volatile Memory, Power-off Recovery, Timer,		
Power (W)	50		
Electricity	220-240V 50/60 Hz		
Approval	CE, ISO		

Clamp Tray	50ml	100ml	250ml	500ml	750ml	1000ml	2000ml	2000ml	5000ml	P8010	P8012
P6016	24	17	9	7	-	-	-	-	-	3	6

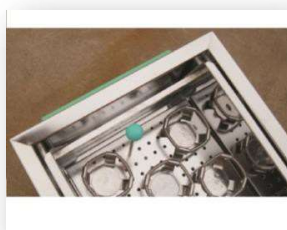
# SHAKING WATER BATH

## DSY SERIES



### Product Overview

1. Solid electric drive mechanism provides uniform and quiet agitation and enables continuous 24 hour operation.
2. Water bath temperature is monitored and controlled over the entire range with an accuracy of  $\pm 0.1^{\circ}\text{C}$  with P.I.D temperature controller.
3. Easy-to-read LCD digital display provides a user-friendly interface which helps minimize errors in establishing running conditions.
4. Non-volatile memory retains preset parameters during a power failure and restarts unit automatically after the power is restored.
5. Heat loss and evaporation is minimized with the use of finely electro-polished stainless steel gabled lid cover. (Standard on ZWY series units, without lid for ZWYK series units)
6. High quality #304 stainless steel for excellent durability of interiors and its parts.
7. Predrilled shaking tray included, without clamps.



Model	DSY-110X30		DSYK-110X30	DSY-110X50	DSYK-110X50
Volume (L)	30			50	
Gable Lid Included	Yes	No		Yes	No
Shaking Mode	Reciprocal				
Temperature Range (°C)	Ambient-99.9				
Temperature Accuracy	±0.1°C				
Temperature Uniformity	±0.2°C@37°C 100rpm				
Timer	1 minute to 500 hours				
Stroke (mm)	16 (Default setting), 24				
Speed Range(rpm)	20-180				
Tray (mm) (WxD)	434x256			494x316	
Inner Dimensions (mm) (WxDxH)	508x300x200			568x360x250	
Exterior Dimensions (mm) (WxDxH)	795x360x380			855x420x430	
Packing Dimensions (mm) (WxDxH)	865x430x520			925x490x590	
Net/Gross Weight (kg)	29/40			33/49	
Power (W)	1600			2000	
Electricity	220-240V 50/60 Hz				
Approval	CE, ISO				

Flask (ml)	50ml	100ml	250ml	500ml	1000ml
DSYK-110X30/DSY-110X30	15	15	11	6	-
DSYK-110X50/DSY-110X50	24	24	15	11	6

# ECONOMIC BENCHTOP SHAKING INCUBATOR

DS-100H



DS-240



## Product Overview

1. Various chamber sizes available from 63L to 69L
2. Smooth and easy to clean design with tempered observation glass window. Inner chamber and tray from electro polished stainless steel.
3. Special low noise induction motor system enables high rotation speed up to 400rpm or 600rpm.
4. Patented driver system allows stroke continuous adjustment from 1 to 50 mm. The combination of high speed and small diameter suitable for many applications involving microtitre plates.
5. AC inductive motor, brushless and maintenance free.
6. Auto-defrosting system, ensuring long-terms non-frosting operation with low temperature set points.
7. Microprocessor control with large LCD screen, showing set and actual parameters. Password protection against unauthorized change of parameters.
8. Audible and visual alarms on over temperature and motor overheating. Soft start and smooth acceleration after lid opening.
9. Timer up to 9999 mins and continuous mode. Predrilled standard tray included, without clamps.

Model	DS- 100H	DS-240
Volume (L)	63	69
Shaking Speed (rpm)	30-400	30-400
Stroke (mm)	Ø1-50 Stepless Adjustment	Ø1-50 Stepless Adjustment
Shaking Mode	Orbital	Orbital
Tray (mm) (WxD)	340x370	400x370
Temperature Range	A+ 5 °C to 60°C	4°C to 60°C
Temperature Accuracy	± 0.1°C.	
Temperature Uniformity	≤ ± 1°C@37°C	
Timer	1 to 9999 mins	
Inner Dimensions (mm) (WxDxH)	410x440x295	490x470x320
Exterior Dimensions (mm) (WxDxH)	600x580x520	730x740x560
Packing Dimensions (mm) (WxDxH )	690x680x700	810x850x760
Net / Gross Weight (kg)	72/92	100/132
Power (W)	550	700
Electricity	220-240V 50/60 Hz	
Approval	CE, ISO	

Flask (ml)	50ml	100ml	250ml	500ml	750ml	1000ml	P8010	P8012
DS-100H	18	18	10	9	5	4	3	4
DS-240	23	23	12	9	7	5	3	8

# PREMIUM HORIZONTAL SHAKING INCUBATORS



## Product Overview

- 4.3" LCD 480x272 touch screen panel clearly indicates all parameters in one page display and makes it easy to change the operating parameters settings, even those multi set points under programmable mode intuitively.
- P.I.D microprocessor controller provides unmatched versatility by enable users to create personalized program (with up to 9 segments, with cycling) to automate changes to function parameters.
- Large double fold tempered glass window and fluorescent light provide complete visibility of chamber interior.
- DS-211D is equipped with foot pedal for lid opening even when carrying full loads in both hands.
- Inner chamber with coved corners of high graded #304 electro polished stainless steel features excellent durability as well as ease of cleaning
- Robust triple eccentric counterbalanced drive in cast iron housing provides vibration and trouble free operation with high shaking speed up to 300rpm.
- Quality brushless AC inductive motor supports reliable, quiet and smooth shaking movements up to top speed.
- Auto-defrosting system, ensuring long-terms non-frosting operation with low temperature setpoints.
- Non-volatile memory saves settings during a power outage and automatically restarts the unit after power is restored.
- Audible and visual alarms on over temperature and motor overheating, and automatically cut off the power.
- Soft start and smooth acceleration when lid is closed after short opens.
- For data recording, the units are equipped with a built-in thermo printer as standard, so that operators could check how the performance parameters vary according to specified process without having to be on site.
- Timer up to 9999 mins under fixed value control mode.
- Predrilled standard tray included, without clamps.
- UV light reduces the air burden, keeping the chamber contamination free.

Model	DS-211C	DS-211D	DS-211
Control	P.I.D Microprocessor		
Control Mode	Fix Value or Program (up to 9 Segments)		
Control Panel	4.3" LCD Touch Screen		
Lid Opening Mode	Hand Hold	Foot Pedal	Hand Hold
Volume (L)	260	300	300
Working Temperature(°C)	5-25		
Shaking Speed (rpm)	30-300		30-240
Stroke (mm)	Ø26		1-50 Stepless Adjustment
Shaking Mode	Orbital		Reciprocal
Tray (mm) (WxD)	920x500	940x584	896x530
Temperature Range (°C)	4-60		
Temperature Accuracy (°C)	0.1		
Temperature Uniformity (°C)	±1°C@37°C		
Timer	1 to 9999 mins		
Inner Dimensions (mm) (WxDxH)	975x565x465	1040x655x465	975x565x465
Exterior Dimensions (mm) (WxDxH)	1230x730x1065	1290x820x1065	1230x730x1065
Packing Dimensions (mm) (WxDxH)	1300x800x1225	1360x910x1225	1300x800x1225
Net/Gross Weight (kg)	255/308	263/313	213/252
Power (W)	1150	1800	1150
Electricity	220-240V 50/60 Hz		
Approval	CE, ISO		
Security	Over-temperature Protection, Compressor Overload Protection, Electrical Leakage Protection		
Additional	Built-in Printer, RS485 Interface Kit (Option)		

Stands are available in 35cm cabinet base stand (#P5010-35); 50cm Frame base stand (#P5010-50)

Flask (ml)	50ml	100ml	250ml	500ml	750ml	1000ml	2000ml	3000ml	5000ml	P8010	P8012
DS-211C	66	66	41	28	24	15	11	8	6	10	28
DS-211D	77	77	54	36	26	18	15	8	6	12	32
DS-211	66	66	45	28	24	15	8	8	-	10	28

### Ordering Information:

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
DS-211C	DS-211C, 260L, Premium Horizontal Shaking Incubator 4-60, 30-300rpm	P8013	T Clamp, S/S, for 150ml Flask, with Spring Retainer
DS-211D	DS-211D, 300L, Premium Horizontal Shaking Incubator 4-60, 30-300rpm	P8003	T Clamp, S/S, for 250ml Flask, with Spring Retainer
DS-211	DS-211, 300L, Premium Reciprocal Horizontal Shaking Incubator 4-60, 30-240rpm	P8014	T Clamp, S/S, for 300ml Flask, with Spring Retainer
P5016	RS-485 Interface	P8004	T Clamp, S/S, for 500ml Flask, with Spring Retainer
P6006	Tray for ZWY-111B/211B/111C/211C/DS-211C, S/S ※	P8005	T Clamp, S/S, for 750ml Flask, with Spring Retainer
P6007	Tray for DS-211D, S/S	P8006	T Clamp, S/S, for 1000ml Flask, with Spring Retainer
P6008	Tray for ZWF-111/211/DS-211, S/S	P8007	T Clamp, Spring S/S, for 2000ml Flask, with Spring Retainer
P7007	Universal Tray for ZWY-111B/211B/111C/211C/DS-211C, Ful Pcs	P8008	T Clamp, Spring S/S, for 3000ml Flask, with Spring Retainer
P7008	Universal Tray for DS-211D, Ful Pcs	P8009	T Clamp, Spring S/S, for 5000ml Flask, with Spring Retainer
P7009	Universal Tray for ZWF-111/211, DS-211, Ful Pcs	P8010	Tube Rack S/S
P7022	Universal Tray for All Horizontal Model, 1/2 Pcs	P8011	Tube Rack ABS Plastic
P8001	T Clamp, S/S, for 50ml Flask, with Spring Retainer	P8012	Clamp for 96 Well Plate, S/S
P8002	T Clamp, S/S, for 100ml Flask, with Spring Retainer	P8017	Sticky Mat, 20 x 20cm



**CLAMPS**



**TOUCH SCREEN**



**FORCED AIR CONVECTION**



# PREMIUM STACKABLE SHAKING INCUBATORS



## Product Overview

- Stackable up to three units for maximum space savings.
- 5.6" LCD 640x480 touch screen panel clearly indicates all parameters in one page display and enables all complicated program settings intuitively just with finger tips.
- Wide-view fold-down door with door handle, and ergonomic sliding-out shaking platform provide convenient access to your experiment products. Fold-up door option (#P5017) available for DSYR-D2403 for easy loading on the top unit.
- Direct beltless driving system is both durable and economical, maintenance free, allows extended speed ranges from 30 to 300 RPM,  $\pm 1$  RPM with minimized vibration, even when shakers are stacked of three high. The shaking diameter can be changed from 1-50mm for optimum oxygenation and nutrient mixing and agitation in from small to large flasks.
- The top of the casing can be further used as a work area for locating small items of lab equipment etc.
- The incubator casing is made of heavy-gauge cold-rolled steel; together with high graded #304 stainless steel inner chambers with coved corners make it easy to clean with mild detergent. Chamber is tall enough to hold 2L Erlenmeyer flasks.
- The ceiling of the unit can be upgraded and fitted with LED lighting kit for cultivation of phototrophic organisms. Mono cool white, or Red & Blue dual light colors are possible and the intensity of each color can be independently controlled and programmed to simulate day/night cycles, perfect for plant cell culture.
- Robust brushless DC motor enables shaking motion quiet and smooth, even when unit is operating at top speed with maximum workload.
- Non-volatile memory saves settings during a power outage and automatically restarts the unit after power is restored.
- For data recording, the units are equipped with a built-in thermo printer as standard, so that operators could check how the performance parameters vary according to specified process without having to be on site.
- Internal UV light as standard provides proactive contamination control when needed.
- Predrilled platform as standard configuration, flask clamps excluded. Plain tray available for use with sticky mats (max. 8 pcs per DSWR-D2401 unit)
- For a comfortable working height, the base stands are available in 35cm cabinet base stand (#P5010-35); 50cm Frame base stand (#P5010-50)


**DSYR-D2403**

**DSYR-D2402**

**DSYR-D2401**

Model	DSYR-D2401	DSYR-D2402	DSYR-D2403
Control	P.I.D Microprocessor		
Control Mode	Fix Value or Program (up to 9 Segments)		
Control Panel	LCD Touch Screen		
Air Convection	Forced		
Shaking Mode	Orbit		
Volume/ Compartment (L)	190		
Ambient Temperature(°C)	10-35		
Shaking Speed (rpm)	30-300		
Stroke (mm)	Ø1-50 Stepless Adjustable		
Temperature Range (°C)	4-60#		
Temperature Accuracy (°C)	0.1		
Temperature Uniformity (°C)	$\pm 0.5^{\circ}\text{C}@37^{\circ}\text{C}$		
Timer	1 to 9999 mins		
Tray (mm) (WxD)	800x430		
Tray Included	1	2	3
Inner Dimensions (mm) (WxDxH)	920x532x395		
Exterior Dimensions (mm) (WxDxH)	1300x930x735	1300x930x1315	1300x930x1895
Packing Dimensions (mm) (WxDxH)	1420x1050x90	1420x1050x1480	1420x1050x2060
Net/Gross Weight (kg)	250/290	430/500	630/730
Power (W)	1200	2400	3600
Electricity	220-240V 50/60 Hz		
Approval	CE, ISO		
Security	Over-temperature Protection, Compressor Overload Protection, Electrical Leakage Protection		
Additional	Built-in Printer, RS485 Interface (Option), LED Lighting Control Kit (Option), Base Stand(Optional)		





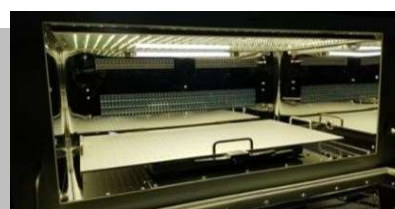
Stands are available in 35cm cabinet base stand (#P5010-35); 50cm Frame base stand (#P5010-50)

Flask (ml)	50ml	100ml	250ml	500ml	750ml	1000ml	2000ml	P8010	P8012
DSYR-D2401	91	50	38	26	18	18	8	8	19
DSYR-D2402	180	100	76	52	36	36	16	16	38
DSYR-D2403	270	150	114	78	54	54	24	24	57

Lighting Control Kit	P5011RB	P5011WW
Light Source	LED	
Light Color*	50% Red, 50% Blue	100% Warm White
Spectrum	Red: 640-660nm, Blue: 430-450nm	4000k:400-700nm
Light Intensity	Up to 700 $\mu\text{mol}/(\text{m}^2\cdot\text{s})$	Up to 400 $\mu\text{mol}/(\text{m}^2\cdot\text{s})$
Control Range	Individually, from 0-100% output	
Control Mode	Fixed Value & Programmable	
Panel Dimensions	890x500x10mm	
Power	300W	



**P5011RB: (50% Red, 50% Blue)**



**P5011WW: (100% Warm White)**

\*Fully customized color combinations are available, contact darsun representatives for more information.

# Min. Operating Temperature: 15°C when Photosynthetic Lighting option is applied.

## ORDERING INFORMATION

PART NUMBER	DESCRIPTIONS	PART NUMBER	DESCRIPTIONS
DSYR-D2401	DSYR-D2401, 190Lx1, Premium Stackable Shaking Incubator, Single, 4-60°C, 30-300rpm	P8010	Tube Rack S/S
DSYR-D2402	DSYR-D2402, 190Lx2, Premium Stackable Shaking Incubator, Double, 4-60°C, 30-300rpm	P8012	Clamp for 96 Well Plate, S/S
DSYR-D2403	DSYR-D2403, 190Lx3, Premium Stackable Shaking Incubator, Triple, 4-60°C, 30-300rpm	P8017	Sticky Mat, 20 x 20cm
P5010-35	Cabinet Base Stand for DSYR-D2401, H35cm	P8021	O Clamp, S/S, for 50ml Flask, with Spring Retainer
P5010-50	Frame Base Stand for DSYR-D2401, H50cm	P8024	O Clamp, S/S, for 500ml Flask, with Spring Retainer
P5011RB	LED Lighting Panel, For DSYR-D2401/D2402/D2403, DSYC-290A, Red & Blue	P8022	O Clamp, S/S, for 100ml Flask, with Spring Retainer
P5011WW	LED Lighting Panel, For DSYR-D2401/D2402/D2403, DSYC-290A, Warm White	P8023	O Clamp, S/S, for 250ml Flask, with Spring Retainer
P5016	RS-485 Interface	P8024	O Clamp, S/S, for 500ml Flask, with Spring Retainer
P5017	Upward Door Opening for DSYR-D2401/D2402/D2403	P8025	O Clamp, S/S, for 750ml Flask, with Spring Retainer
P6024	Predrilled Tray for DSYR-D2401/2402/2403	P8026	O Clamp, S/S, for 1000ml Flask, with Spring Retainer
P6025	Tray for DSYR-D2401/2402/2403, Plain	P8027	O Clamp, S/S, for 2000ml Flask, with Spring Retainer

### O Clamps



### P8017 Sticky Mat



### P8010 Test Tube Rack



# PREMIUM DOUBLE LAYER SHAKING INCUBATOR

DSYR-2102C



DSYR-2102



## Product Overview

- 4.3"/5.6" LCD touch screen panel clearly indicates all parameters in one page display and makes it easy to change the operating parameters settings, even those multi set points under programmable mode intuitively.
- P.I.D microprocessor controller provides unmatched versatility by enable users to create personalized program (with up to 9 segments, with cycling) to automate changes to function parameters.
- Large double fold tempered glass window on the front doors together with the fluorescent light provide complete visibility of chamber interior.
- Mirror-finished high quality #304 stainless steel for excellent durability of interiors. Non-volatile memory for set point retention after power interruption.
- Robust triple eccentric counterbalanced drive in cast iron housing provides vibration and trouble free operation with high shaking speed up to 300rpm even when both layers are fully loaded.
- Quality brushless AC inductive motor supports reliable, quiet and smooth shaking movements up to top speed even when fully loaded with 90 pieces of 250ml flasks (DS-2112B, DS-2112).
- Auto-defrosting system, ensuring long-terms non-frosting operation with low temperature setpoints.
- Non-volatile memory saves settings during a power outage and automatically restarts the unit after power is restored.
- Audible and visual alarms on over temperature and motor overheating, and automatically cut off the power. Soft start and smooth acceleration when doors are closed after short opens.
- Dedicated single layer shaking frame is available for the ease of using large flasks.
- For data recording, the units are equipped with a built-in thermo printer as standard, so that operators could check how the performance parameters vary according to specified process without having to be on site. Timer up to 9999 mins under fixed value control mode.
- UV light reduces the air burden, keeping the chamber contamination free. Predrilled standard tray included, without clamps.



Double Layer  
Shaking Frame



Flask (ml)	50ml	100ml	250ml	500ml	750ml	1000ml	2000ml	3000ml	5000ml	P8010	P8012
DS-2102C	78	56	36	24	18	6*	4*	3*	2*	4	9
DS-2102	118	104	64	54	30	30	8*	7*	4*	8	19
DS-2112B	262	200	110	76	52	44	15*	10*	8*	11	30
DS-2112	252	190	98	80	48	40	15*	10*	7*	10	32

Stands are available in 35cm cabinet base stand (#P5010-35); 50cm Frame base stand (#P5010-50)

Model	DSYR-2102C	DSYR-2102
Control	P.I.D Microprocessor	
Control Mode	Fix Value or Program (up to 9 Segments)	
Control Panel	LCD Touch Screen	
Volume (L)	170	330
Working Temperature(°C)	5-25	
Shaking Speed (rpm)	30-300	
Stroke (mm)	26	
Shaking Mode	Orbital	
Temperature (°C)	4 to 60°C	
Temperature Accuracy	±0.1°C	
Temperature Uniformity	±1°C@37°C	
Timer	1 to 9999 mins	
Tray (mm) (WxD)	496x350	734x458
Inner dimensions (mm) (WxDxH)	615x450x640	845x530x765
Exterior dimensions (mm) (WxDxH)	720x685x1310	950x755x1445
Packing dimensions (mm) (WxDxH)	800x770x1490	1030x870x1640
Net/Gross Weight (kg)	195/238	255/320
Power (W)	1000	1050
Electricity	220-240V 50/60 Hz	
Approval	CE, ISO	
Security	Over-temperature Protection, Compressor Overload Protection, Electrical	
Additional	Built-in Printer, RS485 Interface Kit (Option)	

### Ordering Information:

Part NO.	Description	Part NO.	Description
DSYR-2102C	DSYR-2102C, 170L, Premium Double Layer Shaking Incubator 4-60, 30-300rpm	P8001	T Clamp, S/S, for 50ml Flask, with Spring Retainer
DSYR-2102	DSYR-2102, 330L, Premium Double Layer Shaking Incubator 4-60, 30-300rpm	P8002	T Clamp, S/S, for 100ml Flask, with Spring Retainer
P5001	Single Layer Shaking Frame for DSYR-2102C, Stl S/C#	P8014	T Clamp, S/S, for 300ml Flask, with Spring Retainer
P5002	Single Layer Shaking Frame for DSY-1102/2102, DSYR-2102C, Stl S/C	P8004	T Clamp, S/S, for 500ml Flask, with Spring Retainer
P5016	RS-485 Interface	P8006	T Clamp, S/S, for 1000ml Flask, with Spring Retainer
P6010	Tray for DSY-2102C S/S※	P8007	T Clamp, Spring S/S, for 2000ml Flask, with Spring Retainer

# BLOOD BANK REFRIGERATOR

## DSC-4V108


**78 Bags**


### Product Overview

Blood storage requires specially designed equipment that must comply with international standards. Darsun Bank Refrigerators are reliable for storing blood and are ideal for blood banks, hospitals and the medical industry. They can also be used to store pharmacy and biological products in hospitals and disease prevention centers.

### Key Features:

Advanced forced-air cooling system, large airflow with optimised air channels for inner temperature consistency and special finned evaporator.

Inner light and heated double pane glass doors ensure clear display without condensation

Microprocessor control with digital temperature display

Auto-defrost function ensures good performance in high temperature and high humidity areas

Safety lock prevents unauthorized access

Large digital display for easier observation

SUS shelves for convenient storage of blood bags

Self-closing doors

### Safety Control System:

Alarm mode monitors ambient temperature and system state to ensure safety and reliability of storage conditions.

High/Low temperature alarm, thermostat malfunction alarm, power failure alarm in 72 hours, battery backup malfunction alarm, condenser abnormality alarm.

Audio and visual alarm

USB port, optional temperature controller with thermal printer to track temperature curve

Password protection to prevent random parameter change

Model No.	DSC-4V108	
Specifications	Shelf/Drawer	Shelves/2
	Cooling	Forced – Air Cooling
	Defrost	Auto
	Refrigerant	R134a
	Power Consumption (kWh/24h)	1.95
	Noise (db)	49.6dB(A)
	Ambient Temperature (C)	10 ~ 32
	Temperature Range (C)	4 ± 1
Cooling System	Compressor Brand/QTY	Embraco/1
	Sensor	NTC
	Temperature Controller	Microprocessor
	Display	Digital Display
Power	Voltage/Frequency (V/Hz)	220V/50Hz
	Power (W)	160
	Current (A)	0.6
Material	Inside Material	Stainless Steel
	Outside Material	Color Sprayed Steel
	Insulation	PURF
Size	Capacity (L/Cu.ft)	108/3.81
	Blood Bags (450ml)	66
	Net/Gross Weight (Kg)	50/55
	Exterior Size (WxDxH) (mm)	522 x 600 x 1050
	Interior Size (WxDxH) (mm)	432 x 462 x 478
	Package Size (WxDxH) (mm)	572 x 685 x 1070
Alarm	High/Low Temperature	Y
	Power OFF	Y
	Temperature Controller Malfunction	Y
	Backup Battery Malfunction	Y
	Ambient Temperature	10 ~ 32
	Backup Battery Alarm for Power Off	72h
Accessories	Castor	Y
	Outer Door/Type	1/Heating & Foam Glass Door
	Inner Door	2
	Test Hole	1/25mm
	Thermal Printer	Y
	Light	LED
	Temperature Recorder	Optional
Other	Certifications	ISO9001, 13485, 14001, CE



Glycerine box with sensor inside



Access port



# BLOOD BANK REFRIGERATOR

## DSC-4V208


**156 Bags**


### Product Overview

Blood storage requires specially designed equipment that must comply with international standards. Darsun Bank Refrigerators are reliable for storing blood and are ideal for blood banks, hospitals and the medical industry. They can also be used to store pharmacy and biological products in hospitals and disease prevention centers.

### Key Features:

Advanced forced-air cooling system, large airflow with optimised air channels for inner temperature consistency and special finned evaporator.

Inner light and heated double pane glass doors ensure clear display without condensation

Microprocessor control with digital temperature display

Auto-defrost function ensures good performance in high temperature and high humidity areas

Safety lock prevents unauthorized access

Large digital display for easier observation

SUS shelves for convenient storage of blood bags

Self-closing doors

### Safety Control System:

Alarm mode monitors ambient temperature and system state to ensure safety and reliability of storage conditions.

High/Low temperature alarm, thermostat malfunction alarm, power failure alarm in 72 hours, battery backup malfunction alarm, condenser abnormality alarm.

Audio and visual alarm

USB port, optional temperature controller with thermal printer to track temperature curve

Password protection to prevent random parameter change



Model No.	DSC-4V208	
Specifications	Shelf/Drawer	Shelves/4
	Cooling	Forced – Air Cooling
	Defrost	Auto
	Refrigerant	R134a
	Power Consumption (kWh/24h)	2.22
	Noise (db)	51.2dB(A)
	Ambient Temperature (C)	10 ~ 32
	Temperature Range (C)	4 ± 1
Cooling System	Compressor Brand/QTY	Embraco/1
	Sensor	NTC
	Temperature Controller	Microprocessor
	Display	Digital Display
Power	Voltage/Frequency (V/Hz)	220V/50Hz
	Power (W)	200
	Current (A)	0.8
Material	Inside Material	Stainless Steel
	Outside Material	Color Sprayed Steel
	Insulation	PURF
Size	Capacity (L/Cu.ft)	208/7.34
	Blood Bags (450ml)	132
	Net/Gross Weight (Kg)	67/75
	Exterior Size (WxDxH) (mm)	522 x 600 x 1550
	Interior Size (WxDxH) (mm)	432 x 462 x 978
	Package Size (WxDxH) (mm)	572 x 685 x 1570
Alarm	High/Low Temperature	Y
	Power OFF	Y
	Temperature Controller Malfunction	Y
	Backup Battery Malfunction	Y
	Ambient Temperature	10 ~ 32
	Backup Battery Alarm for Power Off	72h
Accessories	Castor	Y
	Outer Door/Type	1/Heating & Foam Glass Door
	Inner Door	2
	Test Hole	1/25mm
	Thermal Printer	Y
	Light	LED
	Temperature Recorder	Optional
Other	Certifications	ISO9001, 13485, 14001, CE



Fan-assisted evaporator and LED lighting



Acrylic inner door design



Thermal printer



Coated wire baskets



# BLOOD BANK REFRIGERATOR

## DSC-4V368


**360 Bags**


### Product Overview

Blood storage requires specially designed equipment that must comply with international standards. Darsun Bank Refrigerators are reliable for storing blood and are ideal for blood banks, hospitals and the medical industry. They can also be used to store pharmacy and biological products in hospitals and disease prevention centers.

### Key Features:

Advanced forced-air cooling system, large airflow with optimised air channels for inner temperature consistency and special finned evaporator.

Inner light and heated double pane glass doors ensure clear display without condensation

Microprocessor control with digital temperature display

Auto-defrost function ensures good performance in high temperature and high humidity areas

Safety lock prevents unauthorized access

Large digital display for easier observation

SUS shelves for convenient storage of blood bags

Self-closing doors

### Safety Control System:

Alarm mode monitors ambient temperature and system state to ensure safety and reliability of storage conditions.

High/Low temperature alarm, thermostat malfunction alarm, power failure alarm in 72 hours, battery backup malfunction alarm, condenser abnormality alarm.

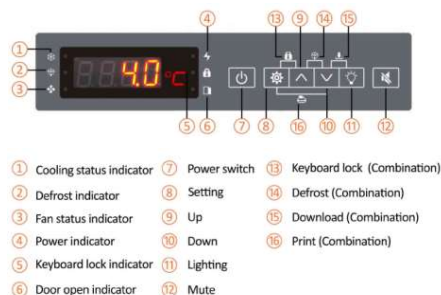
Audio and visual alarm

USB port, optional temperature controller with thermal printer to track temperature curve

Password protection to prevent random parameter change



Model No.	DSC-4V368	
Specifications	Shelf/Drawer	Shelves/6
	Cooling	Forced – Air Cooling
	Defrost	Auto
	Refrigerant	R134a
	Power Consumption (kWh/24h)	4.5
	Noise (db)	51.2dB(A)
	Ambient Temperature (C)	10 ~ 32
	Temperature Range (C)	4 ± 1
Cooling System	Compressor Brand/QTY	Embraco/1
	Sensor	NTC
	Temperature Controller	Microprocessor
	Display	Digital Display
Power	Voltage/Frequency (V/Hz)	220V/50Hz
	Power (W)	355
	Current (A)	2.31
Material	Inside Material	Stainless Steel
	Outside Material	Color Sprayed Steel
	Insulation	PURF
Size	Capacity (L/Cu.ft)	368/12.98
	Blood Bags (450ml)	360
	Net/Gross Weight (Kg)	128/160
	Exterior Size (WxDxH) (mm)	785 x 565 x 1920
	Interior Size (WxDxH) (mm)	685 x 429 x 1380
	Package Size (WxDxH) (mm)	890 x 650 x 2100
Alarm	High/Low Temperature	Y
	Power OFF	Y
	Temperature Controller Malfunction	Y
	Backup Battery Malfunction	Y
	Ambient Temperature	10 ~ 32
	Backup Battery Alarm for Power Off	72h
Accessories	Castor	Y
	Outer Door/Type	1/Heating & Foam Glass Door
	Inner Door	6
	Test Hole	1/25mm
	Thermal Printer	Y
	Light	LED
	Temperature Recorder	Optional
Other	Certifications	ISO9001, 13485, 14001, CE



Thermal printer and USB interface



Quick release filter design



# BLOOD BANK REFRIGERATOR

## DSC-4V658


**430 Bags**


### Product Overview

Blood storage requires specially designed equipment that must comply with international standards. Darsun Bank Refrigerators are reliable for storing blood and are ideal for blood banks, hospitals and the medical industry. They can also be used to store pharmacy and biological products in hospitals and disease prevention centers.

### Key Features:

Advanced forced-air cooling system, large airflow with optimised air channels for inner temperature consistency and special finned evaporator.

Inner light and heated double pane glass doors ensure clear display without condensation

Microprocessor control with digital temperature display

Auto-defrost function ensures good performance in high temperature and high humidity areas

Safety lock prevents unauthorized access

Large digital display for easier observation

SUS shelves for convenient storage of blood bags

Self-closing doors

### Safety Control System:

Alarm mode monitors ambient temperature and system state to ensure safety and reliability of storage conditions.

High/Low temperature alarm, thermostat malfunction alarm, power failure alarm in 72 hours, battery backup malfunction alarm, condenser abnormality alarm.

Audio and visual alarm

USB port, optional temperature controller with thermal printer to track temperature curve

Password protection to prevent random parameter change



Model No.	DSC-4V658	
Specifications	Shelf/Drawer	Shelves/12
	Cooling	Forced – Air Cooling
	Defrost	Auto
	Refrigerant	R134a
	Power Consumption (kWh/24h)	6.31
	Noise (db)	51.2dB(A)
	Ambient Temperature (C)	10 ~ 32
	Temperature Range (C)	4 ± 1
Cooling System	Compressor Brand/QTY	SECOP/1
	Sensor	NTC
	Temperature Controller	Microprocessor
	Display	Digital Display
Power	Voltage/Frequency (V/Hz)	220V/50Hz
	Power (W)	364
	Current (A)	2.42
Material	Inside Material	Stainless Steel
	Outside Material	Color Sprayed Steel
	Insulation	PURF
Size	Capacity (L/Cu.ft)	658/23.23
	Blood Bags (450ml)	360
	Net/Gross Weight (Kg)	165/195
	Exterior Size (WxDxH) (mm)	1220 x 648 x 1885
	Interior Size (WxDxH) (mm)	432 x 462 x 478
	Package Size (WxDxH) (mm)	572 x 685 x 1070
Alarm	High/Low Temperature	Y
	Power OFF	Y
	Temperature Controller Malfunction	Y
	Backup Battery Malfunction	Y
	Ambient Temperature	10 ~ 32
	Backup Battery Alarm for Power Off	72h
	Castor	Y
Accessories	Outer Door/Type	2/Heating & Foam Glass Door
	Inner Door	6
	Test Hole	1/25mm
	Thermal Printer	Y
	Light	LED
	Temperature Recorder	Optional
Other	Certifications	ISO9001, 13485, 14001, CE



Fan-assisted evaporator and LED lighting



Acrylic inner door design



Thermal printer



PVC coated wire baskets



Chart recorder

# BLOOD BANK REFRIGERATOR

## DSC-4V1008


**680 Bags**


### Product Overview

Blood storage requires specially designed equipment that must comply with international standards. Darsun Bank Refrigerators are reliable for storing blood and are ideal for blood banks, hospitals and the medical industry. They can also be used to store pharmacy and biological products in hospitals and disease prevention centers.

### Key Features:

Advanced forced-air cooling system, large airflow with optimised air channels for inner temperature consistency and special finned evaporator.

Inner light and heated double pane glass doors ensure clear display without condensation

Microprocessor control with digital temperature display

Auto-defrost function ensures good performance in high temperature and high humidity areas

Safety lock prevents unauthorized access

Large digital display for easier observation

SUS shelves for convenient storage of blood bags

Self-closing doors

### Safety Control System:

Alarm mode monitors ambient temperature and system state to ensure safety and reliability of storage conditions.

High/Low temperature alarm, thermostat malfunction alarm, power failure alarm in 72 hours, battery backup malfunction alarm, condenser abnormality alarm.

Audio and visual alarm

USB port, optional temperature controller with thermal printer to track temperature curve

Password protection to prevent random parameter change



Model No.	DSC-4V1008	
Specifications	Shelf/Drawer	Drawers/12
	Cooling	Forced – Air Cooling
	Defrost	Auto
	Refrigerant	R134a
	Power Consumption (kWh/24h)	8.53
	Noise (db)	53.6dB(A)
	Ambient Temperature (C)	10 ~ 32
	Temperature Range (C)	4 ± 1
Cooling System	Compressor Brand/QTY	SECOP/1
	Sensor	NTC
	Temperature Controller	Microprocessor
	Display	Digital Display
Power	Voltage/Frequency (V/Hz)	220V/50Hz
	Power (W)	513
	Current (A)	2.37
Material	Inside Material	Stainless Steel
	Outside Material	Color Sprayed Steel
	Insulation	PURF
Size	Capacity (L/Cu.ft)	1008/35.59
	Blood Bags (450ml)	576
	Net/Gross Weight (Kg)	256/286
	Exterior Size (WxDxH) (mm)	1220 x 878 x 1885
	Interior Size (WxDxH) (mm)	1100 x 684 x 1325
	Package Size (WxDxH) (mm)	1300 x 960 x 2080
Alarm	High/Low Temperature	Y
	Power OFF	Y
	Temperature Controller Malfunction	Y
	Backup Battery Malfunction	Y
	Ambient Temperature	10 ~ 32
	Backup Battery Alarm for Power Off	72h
	Castor	Y
	Outer Door/Type	2/Heating & Foam Glass Door
Accessories	Inner Door	6
	Test Hole	1/25mm
	Thermal Printer	Y
	Light	LED
	Temperature Recorder	Optional
	Certifications	ISO9001, 13485, 14001, CE



Fan-assisted evaporator and LED lighting



Acrylic inner door design



Thermal printer



Stainless steel perforated sliding drawers



Quick release filter

# PLATELET INCUBATOR

## DSC SERIES

### FEATURES

- A digital microprocessor temperature controller with LCD display and alarm back up power.
- Accurately controlling the cooling or heating process to maintain a constant temperature of 22°C.
- Temperature setting range: 20°C ~ 24°C.
- The precision of display and control is 0.1 °C.
- Alarms : High/low temperature, power failure, sensor error, door ajar, backup battery for 72 hours.
- Extensions : Remote alarm interface

### ULTIMATE INSULATION

- The cabinet is insulated with a thick layer of high-density PU foam, effectively sealing and maintaining the internal temperature. The door, constructed with the same insulation material, is equipped with double-layer vacuum glass coated with LOW-E film. This design ensures secure platelet preservation while providing enhanced safety measures.

### TEMPERATURE LOGGING

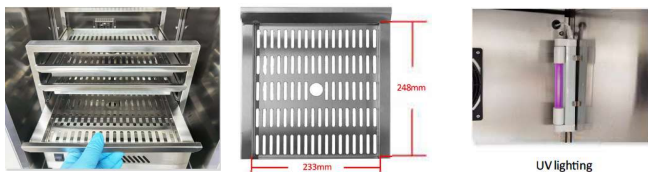
- The unit comes with a thermal printer as standard, which prints real-time temperatures at 5-minute intervals.

### ELECTRICALLY HEATED GLASS DOOR

- Fog or condensation often occurs when opening and closing the door. However, this can be easily prevented with the electrically heated glass door, which quickly evaporate any moisture.

### HIGH QUALITY MATERIALS

- The units feature a high-quality coated cold-rolled steel exterior and stainless steel interior, anti-corrosive, and easy-to-clean properties. The agitator and racks are also constructed with stainless steel, ensuring reliability and hygiene.



### AGITATION SYSTEM

#### System composition

The system consists of an agitator, stainless steel racks, and stainless steel drawers. The stainless steel racks are securely attached to the agitator platform and move in sync with the agitation motion. This design helps maintain platelets in a suspended state, preventing clumping or aggregation.



Foamed glass door



Thermal printer

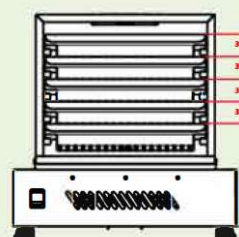


Stainless steel interior



Agitation system

**Rack layer :**  
5 / 7 / 10 / 15



Interior vertical spacing

**Interior vertical spacing**

# PLATELET INCUBATOR

MODEL	DSC-5	DSC-7	DSC-10	DSC-15
Drawer qty	5	7	10	15
Cooling system	Forced air	Forced air	Forced air	Forced air
Defrost	Auto	Auto	Auto	Auto
Refrigerant	R134a	R134a	R134a	R134a
Heating system	Electrical heating	Electrical heating	Electrical heating	Electrical heating
Noise(db)	48	48	48	48
Ambient temperature (°C)	10-32°C	10-32°C	10-32°C	10-32°C
Temperature range (°C)	22°C 2°C	22°C 2°C	22°C 2°C	22°C 2°C
Compressor QTY	1	1	1	1
Sensor	NTC	NTC	NTC	NTC
Temperature controller	Microprocessor	Microprocessor	Microprocessor	Microprocessor
Display	LCD display	LCD display	LCD display	LCD display
Voltage(V)	187-242	187-242	187-242	187-242
Frequency(Hz)	50Hz	50Hz	50Hz	50Hz
Power Consumption(kWh/24h)	2.7	2.7	4.4	4.4
Power(W)	197W	197W	280W	280W
External material	Coated steel	Coated steel	Coated steel	Coated steel
Internal material	SUS 304	SUS 304	SUS 304	SUS 304
Insulation	CFC free PURF	CFC free PURF	CFC free PURF	CFC free PURF
Platelet bag(450ml) Qty	10	14	20	30
NT./GT.(kg)	65/87	65/87	85/108.5	85/108.5
Exterior size[WxDxH](mm)	522x600x1056	522x600x1056	522x600x1305	522x600x1305
Interior size[WxDxH](mm)	427x360x467	427x360x467	432x462x728	432x462x728
Package size (WxDxH) (mm)	584x707x1177	584x707x1177	584x707x1417	584x707x1417
Shipping CBM	0.5	0.5	0.6	0.6
20GP/40GP/40HQ	24/48/96	24/48/96	24/48/48	24/48/48
High/low temperature	Y	Y	Y	Y
Power failure	Y	Y	Y	Y
Controller failure	Y	Y	Y	Y
Sensor error	Y	Y	Y	Y
Door ajar	Y	Y	Y	Y
Power failure backup	72 hours	72 hours	72 hours	72 hours
Castor	Y	Y	Y	Y
Leveling feet	N/A	N/A	Y	N/A



Model	DSC-5	DSC-7	DSC-10	DSC-15
Rack layer	5	7	10	15
Rack material	SUS 304	SUS 304	SUS 304	SUS 304
Drawer QTY	5	7	10	15
Drawer material	SUS 304	SUS 304	SUS 304	SUS 304
Platelet bag (450ml) Qty	10	14	20	30



# -86°C Ultra Low Temperature Deep Freezer

## DS-86L SERIES



### Product Overview

#### Temperature Control System

- Controlled by micro-computer, LCD display touched screen; USB & RS485 data port for downloading the data.
- The inner temperature can be adjusted at the range of -40°C-86°C, the temperature regulation accuracy is 0.1°C.

#### Security Control System

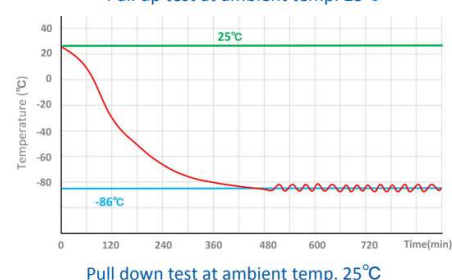
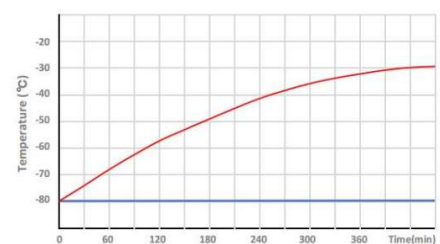
- Multi malfunction alarms: high temperature alarm, low temperature alarm, sensor malfunction alarm, condenser dirty alarm, low battery alarm, power failure alarm, over pressure alarm, over ambient temperature alarm, open the door alarm and so on for safe use;
  - Besides, you can check history alarming information and derive data. all the history data can be saved over 10 years;
  - Three alarming methods: buzzer alarming, independent loon alarming, and remote alarming;
  - Protection function: compressor power-on delay protection, time between power off; overpressure protection, password protection and normal operation protection under failure mode;
  - Password protection can prevent parameters from being changed randomly;
  - Display screen with running indication and communication status indication can show real-time operation of the freezer;
  - The power switch has two-way fuse over-current protection, together with the power-on indicator light ensure safety.
- #### Refrigeration System
- Optimized cascade refrigeration technology, special evaporation system and condensation system, strong refrigerating efficiency;
  - International famous brand compressor and EBM fan electromotor and oil separator, stable product performance, strong refrigerating efficiency;
  - Enhanced sealing design: double door seal;
  - Heating-free pressure-balanced valve (patent), easy to open the door, keep The cold at and avoid the freezer on fire.

#### Humanized Design

- Unique handle design: the door can be opened by both hands, individual press lock on the handle and 2 padlocks;
- Wide voltage design can help it work stably under 198-254V;
- Can show the temperature curve and history data, and have derive data function;
- Press-out type dust removal cover with locks, simple and convenient for maintenance;
- Thermometer holes design for temperature examination.



### Super-stable Cooling System





# -86°C Ultra Low Temperature Deep Freezer

## DS-86L SERIES

Basic	Model No	DS-86L-435T		DS-86L-565T		DS-86L-705T	
	Cabinet Type	Upright					
Technical Parameter	Compartment	4/5					
	Door	2/4/5					
	Cooling Type	Direct Cooling					
	Ground Clearance (mm)	100/128					
	Temperature Performance	-86°C					
	Refrigerant	R290 / R170					
	Power Consumption(kWh/day)	7.5 kwh		7.5 kwh		10 kwh	
	Power (W)	1300		1450		1600	
Temperature	Noise Level(db)	52					
	Ambient Temperature (C)	10°C~45°C					
	Temperature Range (C)	-40°C~ -86°C					
Controller	Compressor	1hp x 2					
	Temperature Uniformity	+3°C					
	Temperature Controller	Microprocessor LCD display touched screen with 0.1°C/1°C increment					
	Sensor Type	PT100/PT1000					
Electronic parameter	Voltage / Frequency	220V/50Hz					
	Heat Output(W)	322		335		375	
	Electricity (A)	7		7		7	
	Capacity (L)	437		567		707	
Size	Net/Gross Weight(Kg)	300/330		317/350		359/350	
	Packing Size (W*D*H)mm	875x1144x2100		1005x1144x2100		1155x1144x2100	
	Outer Size (W*D*H)mm	790x1070x1990		920x1070x1990		1070x1070x1990	
	Inner Size (W*D*H)mm	460x720x1310		590x720x1310		740x720x1310	
Alarm & System	High / Low Temperature	Y					
	Power Off	Y					
	Abnormal Voltage	Y					
	Sensor Malfunction	Y					
	Filter Check	Y					
	Temp. Controller Malfunction	Y					
	Battery Backup Malfunction	Y					
	Co2 Backup	Optional					
	Cryo racks/Cryo box	Optional					
	Ambient Temperature	Y					
Connectivity	Door Ajar	Y					
	Test Hole/Diameter	1/25mm					
	Foot	Y					
	USB Port	Y					
Utility & certificates	Remote Alarm Contact	Y					
	RS232/485 Port (4-20ma Output) Dry Contacts	Y					
	Castor	Y					
	Certification	ISO 9001, CE Certified, FDA, IEC 60601-1 & IEC 61010-1					

Model	Plan	Freezer Rack Model	Plan	Freezer Rack Quantity Unit		Cryogenic Box Quantity unit		Cryogenic vial Quantity Unit (2ml)	
				Spec	Quantity	Spec (Standard)	Quantity	9x9 grid	10x10 grid
DS-86L-435T	A	DS-56-CQ-437	Side Type	5x5	12	2 inch	300	24300	30000
	B	DS-55-CT-437	Drawer Type	5x5	12		300	24300	30000
DS-86L-565T	A	DS-56-CQ-567	Side Type	5x5	16	2 inch	400	32400	40000
	B	DS-56-CT-567	Drawer Type	5x5	16		400	32400	40000
DS-86L-705T	A	DS-56-CQ-707	Side Type	5x5	20	2 inch	500	40500	50000
	B	DS-56-CT-707	Drawer Type	5x5	20		500	40500	50000

# -40°C Ultra Low Temperature Deep Freezer

## DS-40L100



### Product Overview

#### Construction

- Inner made of electro galvanized steel with antimicrobial coating to prevent microbial growth.
- Exterior of powder coated galvanized steel.

#### Temperature Control System

- Electronic thermostat control, digital display of the temperature inside the box, the temperature inside the box is adjustable from -10°C to -40°C.
- High and low temperature alarm control, the alarm temperature point can be set according to needs.

#### Safety

- Three types of fault alarms: high temperature alarm, low temperature alarm, and sensor failure alarm.
- Alarm type: sound buzzer alarm.

#### Refrigeration

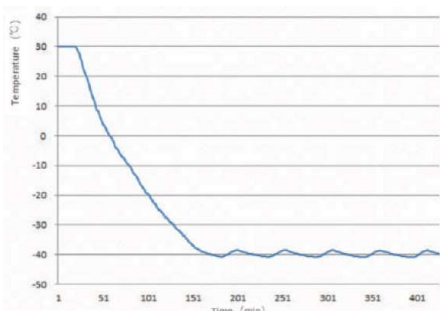
- High quality compressor and high quality fan, fast refrigeration.
- Thickened insulation layer, ultra-microcellular foaming technology, good insulation effect.
- Fluorine-free foaming, fluorine-free refrigerant, green and environmentally friendly.
- Reasonable optimization of the evaporative condensation system design, strong refrigeration.

#### Humanity design

- The safety door lock design prevents random opening.
- With drawers in the box, it is convenient to use.
- Wide climate zone design, suitable for use in 10°C~32°C environment.
- Temperature measuring holes are deployed on the side for user convenience.



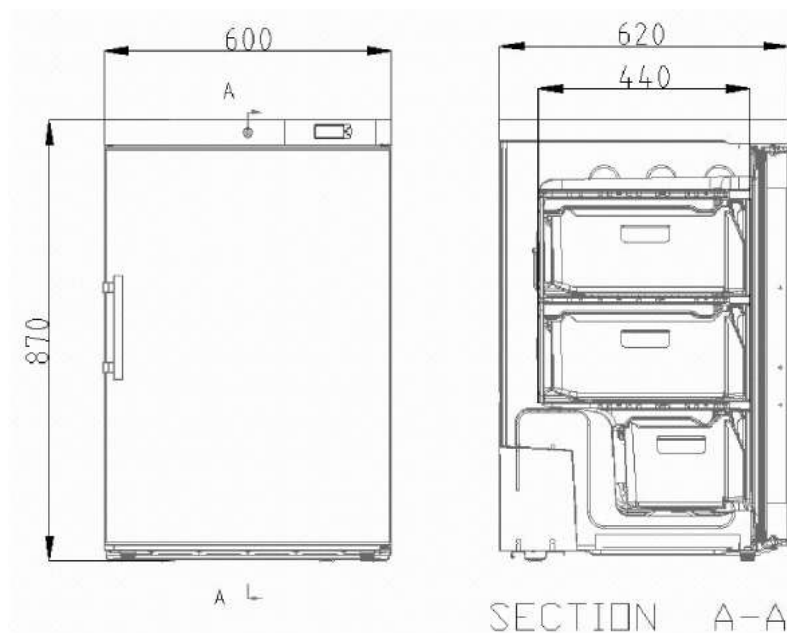
DS-40L100 Cooling Curve



# -40°C Ultra Low Temperature Deep Freezer

## DS-40L100

Model	DS-40L100	
Technical Data	Cabinet Type	Upright
	Climate Class	SN
	Cooling Type	Direct cooling
	Defrost Mode	Manual
	Refrigerant	HC
	Noise Level (dB(A))	53
Performance	Cooling Performance (°C)	-40
	Temperature Range (°C)	-20~-40
Control	Controller	Microprocessor
	Display	LED
Electrical Data	Power Supply (V/Hz)	220/50
	Power (W)	110
	Electrical Current (A)	0.55
Dimensions	Capacity (L/Cu.Ft)	100/3.5
	Net/Gross Weight (approx)	kg 38/40
		lbs 83.6/88.0
	Interior Dimensions (W*D*H)	mm 410*440*630
		in 16.1*17.3*24.8
	Exterior Dimensions (W*D*H)	mm 600*620*870
		in 23.7*24.4*34.3
	Packing Dimensions (W*D*H)	mm 630*645*905
		in 24.8*25.4*35.7
Alarms	Container Load (20'/40'/40'H)	54/114/114
	High/Low Temperature	y
	Sensor Error	y
Accessories	Caster	y
	Foot	y
	Drawers	3
Certification	CE	y



# -40°C Ultra Low Temperature Deep Freezer

## DS-40L277



### Product Overview

#### Construction

- Inner made of electro galvanized steel with antimicrobial coating to prevent microbial growth.
- Exterior of powder coated galvanized steel.

#### Temperature Control System

- Microcomputer control, digital display, the inner temperature can be -20°C--40°C.
- Temperature control system, you can set the temperature alarm according to requirements;
- Display ambient temperature;
- Memories function after power failure.

#### Security Control System

- Multi malfunction alarms: high temperature alarm, low temperature alarm, sensor malfunction alarm, open the door alarm, power failure alarm and low battery alarm, the remote alarm is accessible;
- Two alarming methods: buzzer alarming and digital flashing alarming;
- Protection function: power-on delay, time between stops;
- Keyboard lock function.

#### Refrigeration

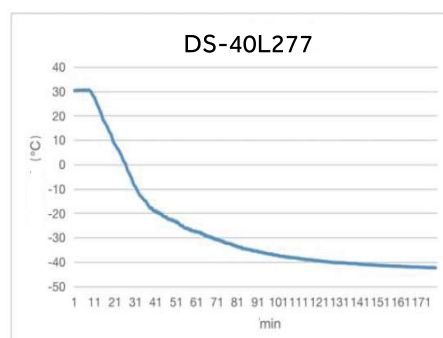
- International famous brand compressor and EBM fan electromotor;
- Thickened temperature preservation layer, ultra- microcellular foaming technology, outstanding temperature preservation.
- CFC-free foaming, CFC-free refrigerant, more environmentally friendly;
- Optimized evaporation system and condensation system, strong cooling, low energy consumption.

#### Humanized Design

- Drawer design, convention for deposit;
- Pressure-balanced valve design, easy to open the door;
- Safety door lock prevents arbitrary open;
- Wide voltage design;
- Caster design at the bottom, free to move and easy to fix;
- LED digital temperature display in the door body, convenient for observation;
- Wide climate zone design, suitable for the ambient temperature of 10-32°C;
- Double sealed structure heating design prevents sealed strip from frosting.



### Shelf Cooling



# -40°C Ultra Low Temperature Deep Freezer

## DS-40L277

	Model No	DS-40L277
Basic	Cabinet Type	Vertical
	Basket	4
	Lock with key	Yes
	Thermometer hole design	Yes
Technical Parameter	Door	1
	Cooling Type	Direct Cooling
	Ground Clearance (mm)	100/128
	Automatic/manual defrost	Manual
	Power(W)	340W
	Noise Level(db)	52
Temperature	Ambient temperature in which the freezer operates	10°C~32°C
	Temperature Range (C)	-20~-40°C
Controller	Temperature Controller	Electronic temperature controller
	Ambient temperature display	Yes
	Sensor Type	PT100/PT1000
Electronic parameter	Voltage / Frequency	220V/50Hz
	Capacity (L)	276
Size	Net/Gross Weight(Kg)	106/125 kg
	Package Dimension (W×D×H) mm	790×811×1928
	Outer Size (W×D×H)mm	717×710×1745
	Inner Size (W×D×H)mm	506×505×1205
Alarm features	High low temperature alarm-Buzzer alarm	Yes
	High low temperature alarm-Light alarm	Yes
	Sensor malfunction alarm-Buzzer alarm	Yes
	Sensor malfunction alarm-Light alarm	Yes
	Open the door alarm-Buzzer alarm	Yes
	Open the door alarm-Light alarm	Yes
	Power failure alarm-Buzzer alarm	Yes
	Power failure alarm-Light alarm	Yes
Connectivity	USB connection	Yes
	Battery backup for alarms (approx.72 hrs)	72 hours of power failure alarm, display the actual temperature in the box
	Direct download of logged data on USB memory stick	Yes
	The control panel locking	Yes
Utility & certificates	Castor	Universal wheels
	Adjustable legs	2
	Certification	ISO 9001, CE Certified, FDA, IEC 60601-1 & IEC 61010-1



# -40°C Ultra Low Temperature Deep Freezer

## DS-40L525



### Product Overview

Suitable for hospitals, blood banks, scientific research institutions, electronic lab and chemical lab, bioengineering as well as in the electronics and chemical industry.

### Construction

- Inner made of electro galvanized steel with antimicrobial coating to prevent microbial growth.
- Exterior of powder coated galvanized steel.

### MAIN FEATURE

- CFC- free technology
- CFC free refrigerant – R 290
- Electronic temperature controller
- Safety door lock
- Malfunction alarm
- LED lighting design
- Optional: Wireless temperature monitoring kit with SMS notification system

### Temperature Control System

- Microcomputer control, digital display of internal
- temperature accurate to 0.1°C, adjustable internal
- temperature -20 to -40°C

### Safety

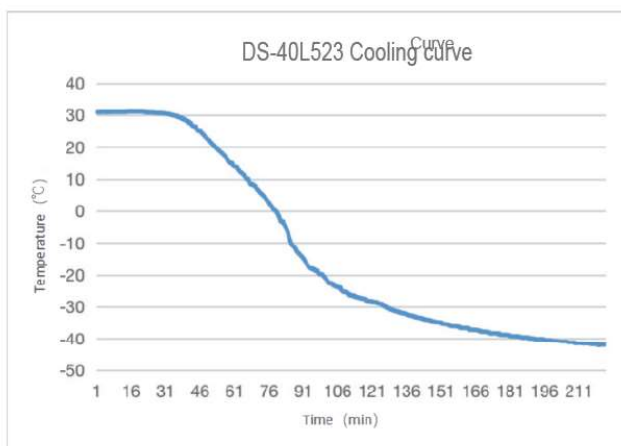
- Various fault alarms: High/low temperature alarm, sensor fault alarm, open door alarm, power failure alarm, battery under voltage alarm etc
- Double door, 100mm thick insulation layer, double seal inside and outside
- Thermal insulation

### Refrigeration

- Fluoride-free refrigerant, green and environment friendly

### Ergonomic design

- Wide voltage design, 10 separate drawers, universal wheels and fixed feet, door frame heated.



# -40°C Ultra Low Temperature Deep Freezer

## DS-40L525

	Model No	DS-40L525
Basic	Cabinet Type	Vertical
	Basket	6/4
	Lock with key	Yes
	Thermometer hole design	Yes
Technical Parameter	Door	2
	Cooling Type	Direct Cooling
	Refrigerant	R404a
	Ground Clearance (mm)	100/128
	Automatic/manual defrost	Manual
	Power	310W
	Noise Level(db)	52
Temperature	Ambient temperature in which the freezer operates	10°C~32°C
	Temperature Range (C)	-20~-40°C
Controller	Temperature Controller	Electronic temperature controller
	Ambient temperature display	Yes
	Sensor Type	PT100/PT1000
Electronic parameter	Voltage / Frequency	220V/50Hz
	Capacity (L)	525
Size	Net/Gross Weight(Kg)	175/195 kg
	Outer Size (W*D*H)mm	945*861*1900mm
	Inner Size (W*D*H)mm	684*612*1184mm
Alarm features	High low temperature alarm-Buzzer alarm	Yes
	High low temperature alarm-Light alarm	Yes
	Sensor malfunction alarm-Buzzer alarm	Yes
	Sensor malfunction alarm-Light alarm	Yes
	Open the door alarm-Buzzer alarm	Yes
	Open the door alarm-Light alarm	Yes
	Power failure alarm-Buzzer alarm	Yes
	Power failure alarm-Light alarm	Yes
Connectivity	USB connection	Yes
	Battery backup for alarms (approx.72 hrs)	72 hours of power failure alarm, display the actual temperature in the box
	Direct download of logged data on USB memory stick	Yes
	The control panel locking	Yes
Utility & certificates	Castor	Universal wheels
	Adjustable legs	2
	Certification	ISO 9001, CE Certified, FDA, IEC 60601-1 & IEC 61010-1

# DS-86L66 -40°C~-86°C

## Vertical Ultra-low Temperature Freezer



### Product Overview

Suitable for hospital, blood-bank, center for Disease Prevention, scientific research institution, bioengineering, Animal Husbandry industry, pelagic fishery, electronic and chemical industry, etc. Used for the refrigeration of red and white cell, skin, skeleton, germ, virus, seminal fluid, biological products and for low temperature testing of electron devices and special materials.

Model	Capacity (L)	Inner Temp erature (°C)	Voltage (V/Hz)	Interior Dim ension (mm) (W*D*H)	Exterior Dimension (mm) (W*D*H)	Package Dimension (mm) (W*D*H)	Shelf (pc)	Power (W)	Net/Gross Weight (Kg)
DS-86L66	66	-40~-86	~220V/50	320*480*430	850*760*762	931*841*895	1	400	120/150



### Product Features

#### TEMPERATURE CONTROL SYSTEM

Controlled by micro-computer, LCD display, touched screen; The inner temperature can be adjusted at the range of -40°C~-86°C, the temperature regulation accuracy is 0.1°C

#### SECURITY CONTROL SYSTEM

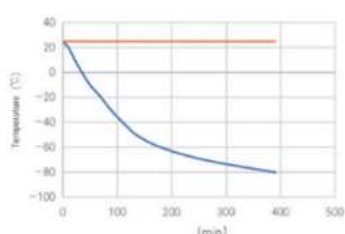
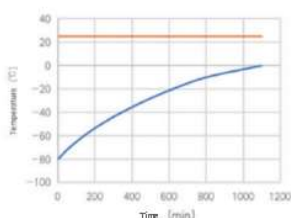
Multi malfunction alarms: high temperature alarm, low temperature alarm, sensor malfunction alarm, condenser dirty alarm, low battery alarm, power failure alarm, over pressure alarm, over ambient temperature alarm, open the door alarm and so on for safe use; Besides, you can check history alarming information and derive data. All the history data can be saved over 10 years; Three alarming methods: buzzer alarming, independent icon alarming, and remote alarming; Protection function: compressor power-on delay protection, time between power off; overpressure protection, password protection and normal operation protection under failure mode; Password protection can prevent parameters from being changed randomly. Display screen with running indication and communication status indication can show real-time operation of the freezer; The power switch has two-way fuse over-current protection, together with the power-on indicator light ensure safety.

#### REFRIGERATION SYSTEM

Optimized cascade refrigeration technology, special evaporation system and condensation system, strong refrigerating efficiency; International famous brand compressor and EBM fan electromotor and oil separator, stable product performance, strong refrigerating efficiency; Enhanced sealing design: double door seal; Heating-free pressure-balanced valve (patent), easy to open the door, keep the cold air and avoid the freezer on fire;

#### HUMANIZED DESIGN

Unique handle design: the door can be opened by both hands, individual press lock on the handle and 2 padlocks; Unique "Thin Body" (only DW-86L348) design and detachable handle help the freezer go through the narrow doors; Wide voltage design can help it work stably under 198-254V; Can show the temperature curve and history data, and have derive data function; Press-out type dust removal screen with locks, simple and convenient for maintenance; Thermometer holes design for temperature examination.



# DS-25L, 300/400L, -25~-10°C, DEEP FREEZER



## Efficient compressor, accurate temperature control

Suitable for hospital, blood-bank, center for Disease Prevention, scientific research institution, animal husbandry industry, electronic lab and chemical lab, etc



## Product Features

### TEMPERATURE CONTROL SYSTEM

Controlled by micro-computer, digital display of inner temperature, the inner temperature can be adjusted at the range of -18°C~-25°C;  
Temperature control system, you can set the temperature alarm according to requirements.

### SECURITY CONTROL SYSTEM

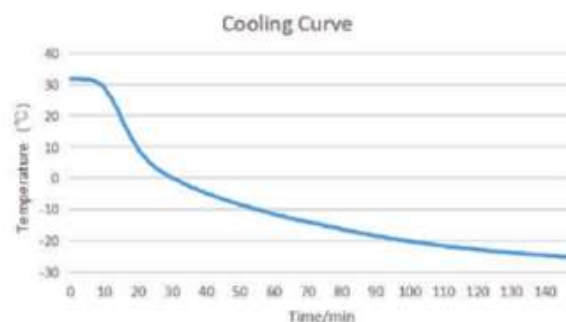
Three malfunction alarms: high temperature alarm, low temperature alarm, and sensor malfunction alarm;  
Two alarming methods: buzzer alarming and digital flashing alarming;  
Protection function: power-on delay, time between stops..

### REFRIGERATION SYSTEM

Famous brand compressor and fan motor;  
Thickened temperature preservation layer, ultra-microcellular foaming technology, outstanding temperature preservation;  
CFC-free foaming, CFC-free refrigerant, more environmental friendly;  
Optimized evaporation system and condensation system, strong cooling, low energy consumption.

### HUMANIZED DESIGN

Drawer design, convenient for deposit;  
Wide voltage design;  
Caster design at the bottom, free to move and easy to fix;  
Wide climate zone design, suitable for the ambience with temperature of 10°C~32°C.  
Safety door lock, preventing the door opened by chance.  
Pressure-balanced valve design, easy to open the door.



Model No.	Total Valid Volume (L)	Inner Temperature (°C)	Rated Voltage/Frequency	External Dimension (W×D×H) (mm)	Internal Dimension (W×D×H) (mm)
DS-25L300	300	-18~-25	~220V/50	600×625×1875	440×448×1673
DS-25L400	400	-18~-25	~220V/50	775×720×1900	605×529×1699

# Single Glass Door Medical Refrigerator Covid Vaccine Storage



## Product Overview

Darsun Medical-grade Pharmacy Refrigerators are designed with the unique needs of the pharmacy environment in mind and safely store vaccines, pharmaceuticals, chemotherapy and other products requiring safe cold storage. The digital display control panel ensure the temperature display accurately in 0.1



## Product Features

MODEL	SHELF	CAPACITY L/CU.FT)	USB INTERFACE	CHAMBER/ OUTER SHELL	DOOR/TYPER/ QTY	DIMENSIONS (W*D*H) (MM)
DSC-5V316	6	316/11.15	Optional	Color Sprayed Steel/Color Sprayed Steel	Heating Glass/1	660*555*1915
DSC-5V416	5	416/14.69	Optional	Color Sprayed Steel/Color Sprayed Steel	Heating Glass /1	785*552*1927



### ELETRICALLY HEATED GLASS DOOR

Fog or condensation often occurs when opening and closing the door. However, this can be easily prevented which the electrically heated glass door, which quickly evaporate any moisture.



### HIGH QUALITY MATERIALS

The Glass-door series products are made of high-quality coated cold-rolled steel both inside and outside, which is antibacterial, anti-corrosive, and easy to clean.



### ULTIMATE UNIFORMITY

The cabinet maintain temperature within +/-3 degree throughout the entire compartment, ensuring confidence that items are stored at the correct temperature regardless of their placement in the chamber.



### GREEN EARTH

Sustainable U.S. EPA, SNAP, and EU F-Gas compliant natural refrigerants and foaming agents support sustainability initiatives. The cooling system uses R290 which are environmentally friendly, having no impact on ozone depletion and a very low Global Warming Potential (GWP) grade.

Brand	DARSUN
Temperature Range	2°C~8°C
Capacity L	316, 416
Defrost	Auto
Cooling Type	Forced Air Cooling System
Temp. Controller	Microprocessor
Power Supply	220V/50Hz or 110V/60HZ
Ambient Temperature	10°C~32°C



# Double Door(Glass Door) Medical Refrigerator For Pharmacy



## Product Overview

2~8°C Pharmacy Refrigerator is widely used in hospitals pharmacy stores and laboratories. This is for placing and preserving storage Such as drugs, vaccines, enzymes, hormones, stem cells, extracted RNA and gene libraries and important biological and chemical reagents.



## Product Features



MODEL	SHELF/QTY	CAPACITY L/CU.FT)	USB INTERFACE	CHAMBER/ OUTER SHELL	DOOR/TYPE/QTY	DIMENSIONS (W*D*H) (MM)
<b>DSC-5V656</b>	Adjustable/10	656/23.16	Optional	Color Sprayed Steel	Self-Closing Glass/2	1240*630*1895
<b>DSC-5V1006</b>	Adjustable/10	1006/35.52	Optional	Color Sprayed Steel	Self-Closing Glass/2	1220*860*1885



### PRECISE TEMP CONTROL

A digital microprocessor temperature controller with LED display and alarm back up power; The precision of display and control is 0.1 degree; Pre-set to 5 degree for pharmacy refrigerators; Audible and visual alarms; Internal USB data logger(optional)



### OPTIMIZED FLUCTUATION

Maintain superior temperature stability, avoiding rapid and significant changes in temperature. This ensures that samples, medications, vaccines, and blood therapies are consistently stored in their optimal environment, without compromise.



### LOCKABLE CABINETS

The refrigerators standard equipped with a built-in lock for each door, provides a secure storage space for your preservations.



### FAST RECOVERY

Faster temperature recovery even after prolonged door openings. The forced-air circulation system maintains consistent temperatures, ensuring that the blood is stored at the right temperature even when the door is opened frequently.

Brand	DARSUN
Temperature Range	2°C~8°C
Capacity L	656, 1006
Defrost	Auto
Cooling Type	Forced Air Cooling System
Temp. Controller	Microprocessor
Power Supply	220V/50Hz or 110V/60HZ
Ambient Temperature	10°C~32°C

# DSD-265, 100 Liter Freezer (-26~-10° C) , 165 Liters Refrigerator (2-8° C) Pharmacy Refrigerator with Freezer



## Product Features

### TEMPERATURE CONTROL SYSTEM

1. Microprocessor control system, refrigerator chamber and freezer chamber temperature can display at the same time;
2. Refrigerator chamber 2~ 8°C,
3. Freezer chamber -10~-26°C ;
4. According to needs, you can close the refrigerator chamber Or freezer chamber independently.

### SECURITY CONTROL SYSTEM

1. Multi-malfunction alarms: high temperature alarm, low temperature alarm, sensor malfunction alarm, open the refrigerator chamber door alarm;
2. Two alarming methods: buzzer alarming, light flashing alarming;
3. Protection function: power-on delay, time between stops.
4. Refrigeration System
5. Optimized refrigeration technology makes the refrigerating capacity stronger;
6. CFC-free technology: it adopts CFC free refrigeration system and foam technology, good for environment protection;
7. Air-cooling design in the refrigerator chamber can ensure stable temperature.

### HUMANIZED DESIGN

1. LCD display;
2. Refrigerator chamber equipped with stainless steel shelves and freezer chamber with basket drawer;
3. Safe door lock design prevents arbitrary open;
4. Innovative door lock design locks the refrigerator and freezer chambers separately and protects the contents inside safe;
5. Refrigerator chamber and freezer chamber can be closed separately, energy-saving and intelligent;
6. Wide voltage design suits for wide range of voltage.



Model No.	Total Volume (L)	Inner Temperature (°C)	Voltage	Packing Dimension (W×D×H) (mm)
YCD-265	265L	2~8, -10~-26	220V/50W	656*696*1739

Heat-Dissipating Method	Net Weight	Type	Over-Temperature Alarm
Direct	65	Cryobiology Cooling Device	with Alarm Function

# DS-25L116/146

## -25~-10°C

## DEEP FREEZER



### Efficient compressor, accurate temperature control

Used to provide a low-temperature freezing environment for medical institutions to store plasma and other samples.



### Product Features

#### TEMPERATURE CONTROL SYSTEM

- \*Microcomputer control, digital display, the inner temperature can be -10°C~-25°C;
- \*Temperature control system, you can set the temperature alarm according to requirements.

#### SECURITY CONTROL SYSTEM

- \*Four malfunction alarms: high temperature alarm, low temperature alarm, sensor malfunction alarm, open the door alarm;
- \*Two alarming methods: buzzer alarming and digital flashing alarming;
- \*Protection function: power-on delay, time between stops, keyboard lock.

#### REFRIGERATION SYSTEM

- \*Famous brand compressor and fan motor;
- \*Thickened temperature preservation layer, ultra-microcellular foaming technology, outstanding temperature preservation;
- \*CFC-free foaming, CFC-free refrigerant, more environmentally friendly;
- \*Optimized evaporation system and condensation system, strong cooling capacity.

#### HUMANIZED DESIGN

- \*Drawer design, convenient for deposit;
- \*Pressure-balanced valve design( except DS-25L116/146), easy to open the door;
- \*Safety door lock prevents arbitrary open;
- \*Wide voltage design;
- \*Caster design at the bottom, free to move and easy to fix;
- \*Wide climate zone design, suitable for the ambient temperature of 10~32°C.



Model	Capacity (L)	Inner Temperature	Voltage (V/HZ)	Interior Dimension (mm)	Exterior Dimension (mm)	Package Dimension (mm)	Drawer/ Basket	Power (W)	Net/Gross Weight(kg)
DS-25L116	116	-10~-25	230V/50	370*425*828	519*600*1120	583*661*1157	4/-	85	40/44
DS-25L146	146	-10~-25	230V/50	370*425*1013	519*600*1357	583*661*1357	6/-	95	44/48

# HARD TOP CHEST FREEZER



## Product Feature

These 2-in-1 hard top chest freezers from Darsun conveniently double up as chillers at the turn of a knob and are available in a wide variety of sizes ranging from 145 to 780 litres to suit every conceivable need. You can also choose between single and double lid variants.



## Product Features

Model	DSC-400DM5	DSC-588DM5	DSC-588DM5
Star Rating	5	5	5
Gross Volume (Litres)	383	524	734
Dimensions wxdxh (mm)	1235x745x905	1645x745x905	1860x855x905
Temperature Range	$\leq -20^{\circ}\text{C}$	$\leq -20^{\circ}\text{C}$	$\leq -20^{\circ}\text{C}$
Power (W):	300	380	300
Refrigerant:	R290	R290	R290
Lock	Yes	Yes	Yes
Defrost	Manual	Manual	Manual
No. of Lids / Doors	2	2	2
No. of Baskets	1	1	1
Wheels / Castors	Yes	Yes	Yes
Certification	CE/ISO		



**Optional temperature Controller**

# MICROPLATE READER

## DS-1260



### Product Features

1. New design and advanced operation system
2. Touch screen, 10.4 inch capacitive touch screen, Work individually or via PC
3. Windows Operation System
4. 8 channel optical fiber scanning
5. Pre-configured analysis modes absorbance, cut-off, kinetic
6. Single or dual wavelength measurements
7. Performing 12 different tests just in one plate
8. Multiplicate report formats of patient information
9. Programmable assays.
10. Auto Lamp adjustment and automatic calibration.
11. Visual and audible alarms for: light source malfunctioning, incorrect filtering, system failures.
12. Stable memory stores up to 200,000 test data, 500 test projects
13. User interface user-friendly, easy to programme and can update software online, Onboard with capability for easily connect to PC



Microplate types	96/ 48 -well plate
Photodetector	Silicon Photodiode
Light source	8v/50w Controlled tungsten halogen lamp
Wavelength range	400nm~800nm
Standard filters	405,450,492,630nm & 4 optional
Reading range	0.000~4.000A
Resolution	0.0001 OD
Accuracy	±0.005
Linearity (absorbance)	±2.0 %
Reproducibility	0.2%
Stability	±0.003A
Reading Speed	Single Wavelength ≤3s ;Double Wavelength ≤6s
Shaking	Integrated plate shaker (linear shaking), 3 speeds
Printer	Built-in Thermal Printer, optional external printer
Interface connections	2xUSB-A, 1xUSB-B, 1xRS-232, 1xPrinter
Power supply	100~240V, 50~60Hz , Type B plug
Dimensions	475(L)x350(W)x210(H)mm
Net weight	11.5kg



# MICROPLATE WASHER

## DS-1261



### Product Features

- 4.3 inch capacitive touch screen display
- Whole plate washing or single strip washing.
- Washing capability for single strips, strip plates and up to 96 well plates.
- Microplate and well bottom shape auto-detection, allows washing flat, V-bottom or U-bottom strips and well plates.
- 12-way and 8-way manifold included.
- Low residual volume by two pipettes
- Complete bottom washing , Line wash function.
- Fluid reservoirs with a capacity of 1L for washing, rinsing solutions and waste.
- Automatic monitoring of vacuum and pressure ,automatic rinse cycle
- Washing methods: plate wash, strip wash, bottom wash, overflow wash, rinsing, dispensing, priming, aspirate, shake, soak and disinfection.
- Visual and audible alarms for power supply failure, wash interruption, low liquid level, waste container full and/or system failure.
- Flat, V-bottom or U-bottom plate and strips washing
- Large memory to store up to 120 user programmed wash protocols
- Inbuilt emergency stop and liquid warning.



Display	Capacitive touch screen display
Channel	<b>1Wash channel + 1Rinse channel</b>
Manifold	8 pins and 12 pins
Wash mode	Strip mode and plate mode
Wash strips	1~12 adjustable
Applicable well	Flat, V-bottom or U-bottom
Wash time	0~99 times adjustable
Soak time	0~999min and 0~999s adjustable
Shake time	0~999 min and 0~999s adjustable
Residual volume	≤1μL/well
Liquid volume	50~9999μl/well
Sip time	0.1~9.9s
Storage capacity	More than 120 user defined wash board procedures
Power supply	100--240V, 50~60Hz
Dimensions	448(L)x382(W)x163(H)mm
Net weight	8kg
Communication ports	RS232
Operating environment	Temperature 5 -C ~40 -C ,Max, Humidity 80%

# PCR Thermal Cycler



## Product Overview

The thermal cycler is basic instrument in molecular laboratories and is mainly used for gene amplification In scientific research and clinical area, qualitative PCR gene amplification, gene chip or other gene analysis applications. The gradient thermal cycler has gradient function, which can quickly Increase and decrease the temperature. It can achieve temperature uniformity In a single process and can quickly and stably complete polymerase chain reaction (PCR) experiments.



## Product Features

1. Portable and compact design
2. Elastic structure hot lid design, adaptable to 96-well micro plate or 0.1/0.2ml PCR tube Using high-quality pettier, ensure excellent temperature uniformity
3. The heating and cooling rate can reach to 5.5°C/s, saving experimental time
4. Humanized standard program file template, which can quickly edit experimental files Automatic fault detection and alarm function



0434 94400000 400 888 888



good temp uniformity  
between the wells



precise pettier temp  
control technology



Elastic hot lid  
revents reagents from  
evaporating



Color touch screen  
friendly user interface,  
simple programming, can  
quickly check working status



Excellent cooling system  
efficient heat dissipation,  
fast heating and cooling  
speed

Model	DS96S	DS96G
Temp mode	Standard	Gradient
Power(KW)	1.4	2
Sample capacity	96x1.1 /0.2ml PCR tube/96-wells microplate	
Block temp control range	4~105°C	
Hot lid temp control range	30~110°C	
Temp display accuracy	±0.1°C	
Temp control accuracy	±0.3°C	
Temp uniformity	±0.3°C	
Display	double rows digital tube display	
Max temp change rate	5.5°C/s	
Gradient setting range	/	30~105°C
Gradient span	/	1~42°C
Heating module material	Aviation aluminum	
Display	7-inch color touch screen	
User defined file storage	676 Files	
Power outage protection	Yes	
Dimension	L270xW240xH150mm	
Weight	4.8kg	
Power supply	100~240V;50/60HZ	

# Advanced Single Beam Microprocessor UV-VIS Spectrophotometer With Scanning Software



## Product Features

1. Large LCD screen (128\*64) Dots
2. Can display and save 50 groups of data, 5 groups per screen
3. Data can be restored after a sudden power cut
4. Auto setting Wavelength
5. Tungsten lamp & deuterium lamp can be turned on/off individually to extend lifetime
6. Automatic WL. Calibration and dark current
7. Getting. With Scanning



**UV-VIS  
Spectrophotometer  
Single Beam 295**  
Models are designed for reliable continuous operation. It is easy to use, thoroughly reliable and above all low cost.

## FIRMWARE FUNCTIONS

T Mode: Continuously measure the Transmittance of Sample



A Mode: Continuously measure the Absorbance of Sample



C Mode: Standard Curve method, can use at most 9 standard samples to create a new standard curve, and to measure the unknown samples by the new one



F Mode: Coefficient Method, Input the known K and C to measure the unknown concentration samples.



## STANDARD CONFIGURATION

• Main Set	1 No.
• USB Cable	1 No.
• Accessory kit. including a 4 glass cell (10 mm)	1 No.
• 2 Quartz Cell (10 mm)	1 No.
• Operating Manual Software Manual	1 No.
• Dust Cover	1 No.
• Software CD	1 No.
• Power Cable	1 No.

Model	DSB-295
Optional System	Single - Beam, Grating
Wavelength Range	190 - 1000nm
Bandwidth	2nm
Wavelength Accuracy	±1nm
Wavelength Repeatability	0.5nm
Wavelength Setting	Auto
Photometric Accuracy	±0.5%T
Photometric Repeatability	0.3%T
Photometric Range	-0.3-3A,0-200%T
Stray Light	<0.3%T
Stability	±0.002A/h @500nm
Display	128*64 Dots LCD
Detector	Silicon Photodiode
Standard Cell Holder	4-position 10-100 mm cell changer
Light Source	Tungsten & Deuterium lamp
Output	USB port & Parallel port (printer)
Power Requirements	AC 85 - 250V
Dimension	420x280x180mm
Weight	20kg



# Microprocessor UV-VIS Double Beam Spectrophotometer DSB-2704



## Product Features

1. Double beam optical system
2. Low noise and Low stray light
3. Large LCD display, can display curve
4. High quality grating, detector and lamps
5. Data and Curve can be stored in real-time
6. Auto setting WL, auto Blank
7. Lamps can be turned on/off individually
8. Easy to change Pri-aligned lamps
9. Reinforced baseboard and bracket assures durability

\*Design & specification are subject to change without any prior notice. \*

## Function

- Photometric: T%, Abs
- Quantitative: Standard Curve
- System Utility
- WL Scan (Spectrum Scan)
- Time Scan (Kinetics)
- DNA/Protein Test



Model	DSB-2704
Wavelength Range	190-1100nm
Spectral Bandwidth	1nm
Optical System	Double Beam, Blazed Holographic Grating (1200 lines/mm)
Wavelength Accuracy	±0.5nm
Wavelength Repeatability	50.2nm
Wavelength Setting	Auto, Resolution 0.1 nm
Photometric Range	0-200%T, -4-4A, 0-9999C
Photometric Accuracy	±0.002 A (0-0.5A), ±0.003A (0.5-1A), ±0.3%T (0-100%T)
Photometric Repeatability	50.001 A (0-0.5A), 50.002A (0.5-1A), 50.2%T (0-100%T)
Stray Light	50.05%T(220/360nm)
Scan Speed	High, Medium, Low. Max.2000nm/minute
Baseline Flatness	±0.0015A
Stability	±0.001A/h (500nm,0A)
Noise	50.2%T/3min (250/500nm,0%T); 50.5%T/3min (250/500nm,100%T)
Sample Compartment	10mm Pathlength Cuvette
Detector	Silicon Photodiode
Lamps	Tungsten Lamp & Deuterium Lamp (Pre-aligned)
Display	Graphic LCD (320*240 Dots)
Keypad	30-key Alphanumeric Membrane Keypad
Output Port	USB Port
Printer	Mini Serial Printer; PC Printer
PC Software	UV Analyst Scanning Software
Power Requirements	AC90-250V, 50/60Hz
Dimension	545x468x245
Weight	18kg

## BASIC MODE

To measure the Absorbance and transmittance

## QUANTITATIVE

- Coefficient Method
- Standard Curve Up to 10 Standard sample may be used to establish a curve. Four methods for fitting a curve through the calibration points: Linear fit. Linear through zero, Square and cubic fit.

## DNA/PROTEIN TEST

Concentration and DNA purity are quickly and easily calculated: Absorbance ratios: 260 nm / 280 nm with optional subtracted absorbance at 320 nm. DNA concentration = 62.9XA260-36.0XA280 Protein concentration = 1552xA260-757.3xA280

## WAVELENGTH SCAN

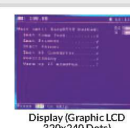
- The wavelength scan intervals are 0.1,0.2,0.5,1,2,5 nm
- High, Medium and low scan speed are available. They vary from 100 to 3600 nm/min
- Wavelength are scanned from high to low so that the instrument waits at high WL. And it minimizes the degradation of UV sensitive samples.

## KINETICS

Abs vs time graphs is displayed on the screen in real time wait time and measurement time up to 12 hours may be entered with time interval of 0.5,1,2,5,10,30 seconds and one min. Post-run manipulation includes re-scaling, curve tracking and selection of the part of the curve required for rate calculation. Rate is calculated using a linear regression algorithm before multiplying by the entered factor

## APPLICATIONS

- Medicine/Pharmaceutical Industry
- Environment Monitoring
- Commodity Inspection
- Food Inspection
- Agricultural Chemistry
- Teaching in Colleges & Universities
- Metallurgy
- Geology
- Machine Manufacturing
- Petrochemical Industries
- Water and Waste water Labs
- Food and beverages Labs



## STANDARD CONFIGURATION

Glass Cell	4 Nos.
Quartz cells	2 Nos.
Instruments Cover	1 No.
Software CD	1 No.
USB Cable	1 No.
Operational Manual	1 No.
Software Manual	1 No.
Software key	1 No.

# ULTRA-MICRO SPECTROPHOTOMETER

## DSD-2112B



### Product Features

1. Light Source Flickering: The low-intensity stimulation allows for faster
2. Light Source Flickering: The low-intensity stimulation allows for faster detection of the sample, and it is less prone to degradation;
3. 4-Path Detection Technology: offering improved stability, repeatability, better linearity, and a broader measurement range;
4. Sample Concentration: Samples do not require dilution;
5. Fluorescence Function: Can detect dsDNA with concentrations at the pg level ;
6. Easy-to-use data-to-printer options with a built-in printer, allowing you to directly print reports;
7. Developed with an independent Android operating system, featuring a 7-inch capacitive touch screen.



Fluorescence function



Light blinking



OD600  
With OD600 bacterial solution, microbial detection



Sample without dilution



Four optical path detection technology is used



The android operating system



Built-in printer



Strong repeatability and high linearity



Model	DSD-2112B
Wavelength Range	190-850nm
Light Range	0.02mm, 0.05mm (High concentration measurement) 0.2mm, 1.0mm (General concentration measurement)
Light Source	Xenon flashing light
Absorbance Accuracy	0.002Abs(0.2mm Light Range)
Absorbance Range(Equivalent to 10mm)	0.02- 300A
OD600	Absorbance range: 0~6.000 AbsAbsorbance stability: [0,3)≤0.5%, [3,4)≤2% Repeatability of absorbance: 0,3)≤0.5%, [3,4)≤2% Absorbance Accuracy: [0,2)≤0.005A, [2,3)≤1%, [3,4)≤2%
Operation Interface	7 inch touch screen; 1024×600HD display
Sample Volume	0.5-2μL
Nucleic Acid/Protein Testing Range	0-27500ng/μl(dsDNA); 0.06-820mg/ml BSA
Fluorescence Sensitivity	DsDNA: 0.5pg/μL
Fluorescence Linearity	≤1.5%
Detectors	HAMAMATSU UV-enhanced; CMOS Line Array Sensors
Absorbance Accuracy	±1%(7.332Abs at 260nm)
Testing Time	<5S
Power Consumption	25W
Power Consumption at standby	5W
Power Adapter	DC 24V
Dimensions ((W×D×H))	200×260×65(mm)
Weight	5kg



# Double Beam Microprocessor UV-VIS Spectrophotometer DSB-2802 PS



## Product Features

1. The valid temperature range is from 15°C to 65°C
2. The valid sampling time range is from 30s to 10mi.,,
3. The valid peristaltic pump speed range is from 1 to 12
4. The sampling speed is about 50ml/min.
5. Power supply is 220±22V@50±1Hz or 110±11V@60±1Z

## Function

- Wide Wavelength range, satisfying requirements various fields.
- Fully automated design, realizing the simplest measurement & satisfying the requirement of pharmacopeia
- Maximum of 9 Wavelength & 8 Sample can be measured at one time
- Automatic change - over Between W lamp & D2 lamp
- Optimized optics and large scale integrated circuits design, light source and receiver
- From world famous measurement methods alladd up to high performance and reliability.
- Rich measurement methods: wavelength scan, time scan, multi wavelength Determination multi – order derivative determination, double-wavelength method and triple wavelength methods etc,meet difference measurement requirement
- Automatic 10 mm 8 - cell holder
- Data Output can be obtained via a printer port and a USB interface
- Parameters and data can be saved for user's convenience.
- PC controller measurement can be achieved for more accurate and flexible requirement

Model	DSB-2802 PS
Optional System	Double Beam (1200 Lines/nm Grating)
Wavelength Range	190-1100nm
Mode	Basic/Quantative/Wavelength Scan/DNA Protein Test/Kinetics/Multi Wavelength Mode
Scanning Speed	Mode Fast/Medium/Low
Band Width	1nm
Wavelength Accuracy	±0.3nm
Wavelength Repeatability	0.2nm
Photometric Accuracy	±0.3% T
Photometric Repeatability	0.2 % T
Photometric Display Range	0-200% T-0.3-3.0A, 0-9999 C
Stability	±0.001A/h @500nm
Baseline Flatness	± 0.001A
Noise	± 0.001A
Stray Light	<0.05% @220nm&360nm
Data Output Port	USB
Printer Port	Parallet Port
Display	Graphic LCD (320 X240 Dots)
Lamps	Deuterium Lamp & Tungsten HalogerLamp
Detector	Silicon Photo diode
Packing Dimension	860 x 660 x 465 nm
Weight	26 kg

## BASIC MODE

To measure the Absorbance and transmittance

## QUANTITATIVE

- Coefficient Method
- Standard Curve Up to 10 Standard sample may be used to establish a curve. Four methods for fitting a curve through the calibration points: Linear fit, Linear through zero, Square and cubic fit.

## DNA/PROTEIN TEST

Concentration and DNA purity are quickly and easily calculated: Absorbance ratios: 260 nm / 280 nm with optional subtracted absorbance at 320 nm. DNA concentration = 62.9XA260-36.0XA280 Protein concentration = 1552xA260-757.3xA 280

## WAVELENGTH SCAN

- The wavelength scan intervals are 0.1,0.2,0.5,1,2,5 nm
- High, Medium and low scan speed are available. They vary from 100 to 3600 nm/min
- Wavelength are scanned from high to low so that the instrument waits at high WL. And it minimizes the degradation of UV sensitive samples.

## KINETICS

Abs vs time graphs is displayed on the screen in real time wait time and measurement time up to 12 hours may be entered with time interval of 0.5,1,2,5,10,30 seconds and one min. Post-run manipulation includes re-scaling, curve tracking and selection of the part of the curve required for rate calculation. Rate is calculated using a linear regression algorithm before multiplying by the entered factor

## APPLICATIONS

- Medicine/Pharmaceutical Industry
- Environment Monitoring
- Commodity Inspection
- Food Inspection
- Agricultural Chemistry
- Teaching in Colleges & Universities
- Metallurgy
- Geology
- Machine Manufacturing
- Petrochemical Industries
- Water and Waste water Labs
- Food and beverages Labs

## STANDARD CONFIGURATION

Glass Cell	4 Nos.
Quartz cells	2 Nos.
Instruments Cover	1 No.
Software CD	1 No.
USB Cable	1 No.
Operational Manual	1 No.
Software Manual	1 No.
Software key	1 No.
Flow Cell	1 No.

## ACCESSORIES

- Control Unit.
- Cell holder with Peltier System. (It's already pre-loaded into the compartment of the spectrophotometer).
- Control Cable (to connect the Control Unit with the Cell holder with Peltier System).
- Peristaltic pump pipe. (It's already pre-loaded into the pump valve of the Control Unit)
- Power Cord.

## Touch Screen Double Beam UV-VIS Spectrophotometer DSB-2900



### Product Features

- Double beam UV-VIS spectrophotometers adopt double beam optical system, and blazed holographic gratings. They have outstanding test precision and very competitive prices.
- 8 inch color touch-screen, cutting-edge user interface, powerful functions, and easy operation.
- With powerful functions, the equipment shows great performance in qualitative and quantitative testing, such as
  - Full spectrum scanning
  - Linear regression
  - Detailed spectrum scanning
  - Concentration direct reading
  - Time based kinetics determination
  - Peak/ Valley detecting
  - GOTO
  - Multi-wavelength measurement
- The equipment is designed with sophisticated power protection system, With high capacity of internal memory, it can store testing results, scanned images, regression equations and correction data. Therefore, it follow a fast initialization when power on.
- The instrument can be connected with dedicated printer, which can print testing results, or draw curve from spectral scanning, fixed wavelength time-based scanning, and linear regression.
- With USB COM port the device can be connected to a PC, which can not only enhance the performance in data testing and spectrum scanning, but also expand the memory to save more testing results.

- Double beam optical system
- 8 inch color touch-screen
- Automatic zero and full scale
- Adjustment
- Automatic wavelength settings
- Equipped with USB COM port
- UV WIN8 Spectrum Data
- Processing Software optional
- Thermal plotter Optional

### STANDARD ACCESSORIES

- Operation manual -1
- Quartz Cuvette 1cm -2pcs
- Power Cable -1
- Fuse -2pcs



Model	DSB-2900
Display	High Resolution Touch Screen LCD Colour Graphical display with Built-in Window PC
Monochromator	Concave holographic grating with 1200 lines/mm
Wavelength	The Complete Wavelength For Instrument 190-1100
Resolution	0.2nm
Accuracy	±1nm
Repeatability	±0.5nm
Spectral Bandwidth	<2nm
Measuring Modes	%Transmittance (% T), Absorbance (ABS). Concentration (CONC) by K-Factor and multi Standards
Operating Modes	Single wavelength : Measuring % T, ABS and CONC., Spectrum time scan, measuring % T and ABS
Source	Tungsten Halogen Lamp
Power	230 V ± 10%, 50Hz
Standard Accessories	10 mm path length four (4) Cuvettes matched with ± 0.3%
Certification	Availability of UL/CE Certifications as per EN 61010-1:2010 safety requirements for electrical equipment for measurement, control and laboratory use General requirements. Conformance to EMC/EMI as per EN 61326-1:2013 Electrical equipment for measurement, control and laboratory use. Availability of Test Reports from Central Govt./NABL Approved/ILAC accredited lab to prove conformity to the specification.

# Ventilated | Low speed | Benchtop

## DST-500



### Product Overview

The DST-500 offers exceptional user comfort and a choice of 6 rotors, including the most popular swing out rotors for 15ml and 50ml tube. It adopts intelligent LCD touch screen, easily operate with gloves. Thanks to the strong operation system, it supports the multi-stage centrifugation and can store up to 1000 programs.



### Product Features

#### USER-FRIENDLY FUNCTIONS

- > up to 1000 user-defined programs
- > up to 1000 run histories, can be exported via USB
- > up to 40 rates acceleration and deceleration
- > up to 5 stages multi-stage centrifugation mode available
- > up to 99h59m59s timer range, 1s increment

#### ENSURE SAFETY

- > Microprocessor control
- > Motorized electronic door lock
- > Door cannot be opened when rotor is spinning
- > Gas hinge to prevent door falling
- > Port in the door for calibration and operation checking
- > Emergency door lock release
- > Password to lock the device

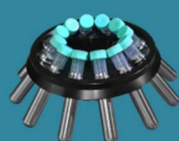
#### LCD TOUCH SCREEN

- > Simple and clear to show all parameters
- > Touch screen, easy to set parameters
- > RCF can be set directly
- > RPM and RCF convert automatically
- > User can set parameters even with gloves
- > User can reset parameters when rotor is spinning

#### GOOD COMPONENTS

- > Motor: Variable frequency motor.  
stable running, maintenance free, long life
- > Housing: Thick and strong steel
- > Chamber: Food grade 304 stainless steel.  
anticorrosion and easy to clean
- > Rotor: Aluminum alloy fixed angle rotor;  
Stainless steel swing out rotor.
- > Rotors are autoclavable

Model	DST-500
Max speed	5000rpm
Max RCF	4650xg
Max capacity	6x50ml
Timer range	1s to 99h59m59s
Speed accuracy	±10rpm
Noise	≤60dB(A)
Power consumption	500W
Dimension	495x400x420mm
Net weight	27kg



Rotor: Fixed angle rotor  
Capacity: 12x15ml  
Max Speed: 5000rpm  
Max RCF: 3558xg  
Tube Size: 17x121mm



Rotor: Fixed angle rotor  
Capacity: 6x50ml  
Max Speed: 5000rpm  
Max RCF: 3558xg  
Tube Size: 29x116mm



Rotor: Swing-out rotor  
Capacity: 24x7ml blood tube  
Max Speed: 5000rpm  
Max RCF: 4650xg  
Tube Size: 13x75-100mm



Rotor: Swing out rotor  
Capacity: 16x15ml  
Max Speed: 5000rpm  
Max RCF: 4620xg  
Tube Size: 17x121mm  
Can choose adapters for blood tubes



Rotor: Swing out rotor  
Capacity: 8x15ml  
Max Speed: 5000rpm  
Max RCF: 4620xg  
Tube Size: 17x121mm



Rotor: Swing out rotor  
Capacity: 4x50ml  
Max Speed: 4000rpm  
Max RCF: 2976xg  
Tube Size: 29x116mm



# Ventilated | Low speed | Benchtop

## DST-600



### Product Overview

The DST-600 offers exceptional user comfort and a choice of 6 rotors, including the most popular swing out rotors for 15ml and 50ml tube. It adopts intelligent LCD touch screen, easily operate with gloves. Thanks to the strong operation system, it supports the multi-stage centrifugation and can store up to 1000 programs.



### Product Features

#### USER-FRIENDLY FUNCTIONS

- > up to 1000 user-defined programs
- > up to 1000 run histories, can be exported via USB
- > up to 40 rates acceleration and deceleration
- > up to 5 stages multi-stage centrifugation mode available
- > up to 99h59m59s timer range, 1s increment

#### ENSURE SAFETY

- > Microprocessor control
- > Motorized electronic door lock
- > Door cannot be opened when rotor is spinning
- > Gas hinge to prevent door falling
- > Port in the door for calibration and operation checking
- > Emergency door lock release
- > Password to lock the device

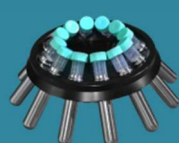
#### LCD TOUCH SCREEN

- > Simple and clear to show all parameters
- > Touch screen, easy to set parameters
- > RCF can be set directly
- > RPM and RCF convert automatically
- > User can set parameters even with gloves
- > User can reset parameters when rotor is spinning

#### GOOD COMPONENTS

- > Motor: Variable frequency motor. stable running, maintenance free, long life
- > Housing: Thick and strong steel
- > Chamber: Food grade 304 stainless steel. anticorrosion and easy to clean
- > Rotor: Aluminum alloy fixed angle rotor; Stainless steel swing out rotor.
- > Rotors are autoclavable

Model	DST-600
Max speed	6000rpm
Max RCF	5123xg
Max capacity	6x50ml
Timer range	1s to 99h59m59s
Speed accuracy	±10rpm
Noise	≤60dB(A)
Power consumption	500w
Dimension	495x400x310mm
Net weight	25kg



#### Order No.:10101200150

Rotor: Fixed angle rotor  
Capacity:12x15ml  
Max Speed:6000rpm  
Max RCF:5123xg  
Tube Size:17x121mm



#### Order No.:10100600500

Rotor: Fixed angle rotor  
Capacity:6x50ml  
Max Speed:6000rpm  
Max RCF:5123xg  
Tube Size:29x116mm



#### Order No.:10002400077

Rotor: Swing-out rotor  
Capacity:24x7ml blood tube  
Max Speed:5000rpm  
Max RCF:4650xg  
Tube Size:13x75-100mm



#### Order No.:10001600150

Rotor: Swing out rotor  
Capacity:16x15ml  
Max Speed:5000rpm  
Max RCF:4620xg  
Tube Size:17x121mm  
Can choose adapters for blood tubes



#### Order No.:10000800150

Rotor: Swing out rotor  
Capacity:8x15ml  
Max Speed:5000rpm  
Max RCF:4620xg  
Tube Size:17x121mm



#### Order No.:10000400500

Rotor: Swing out rotor  
Capacity:4x50ml  
Max Speed:4000rpm  
Max RCF:2976xg  
Tube Size:29x116mm

# Ventilated | Low speed | Benchtop

## DST-6M



### Product Overview

DST-6M is a non-refrigerated large capacity centrifuge with a maximum capacity of 2L, which suitable with 0.2mL-500mL tube/bottle, standard blood tube and microplate. Also provide the rotor with biosafety cap for choice, can meet different centrifugal requirements



### Product Features

#### USER-FRIENDLY FUNCTIONS

- >12 user-defined programs
- >19 rates acceleration and deceleration
- >1m to 9999min59s timer range
- >LCD screen shows all parameters simply and clearly
- >RCF can be set directly
- >RPM and RCF cove automatically
- >User can reset parameters when rotor is spinning

#### ENSURE SAFETY

- >Microprocessor control
- >Imbalance detection by three axis gyroscope & centrifugation stop with display of error
- >Motorized electronic door lock
- >Door cannot be opened when rotor is spinning
- >Gas hinge to prevent door falling
- >Po in the door for calibration and operation checking
- >Emergency door lock release

#### GOOD COMPONENTS

- >Motor: Variable frequency motor. stable running, maintenance free, long life
- >Housing: Thick and strong steel
- >Chamber: Food grade 304 stainless steel. anticorrosion and easy to clean
- >Rotor: Aluminum alloy xed angle rotor; Steel/Stainless steel swing out rotor.
- >Rotors are autoclavable



Model	TD-6M
Max speed	6000rpm
Max RCF	5200xg
Max capacity	4x50ml
Timer range	1s to 99h59m59s

Speed accuracy	±10rpm
Noise	≤60dB(A)
Power consumption	500w
Dimension	495x400x310mm
Net weight	25kg



# AVAILABLE ROTORS DST-6M

## No.1



**Order No.:10000401000**  
 Rotor: Swing out rotor  
 Capacity: 4×100ml  
 Max speed: 5000rpm  
 Max RCF: 4650×g  
 Tube size: Φ38×114mm



**Order No.:10000400500**  
 Rotor: Swing out rotor  
 Capacity: 4×50ml  
 Max speed: 5000rpm  
 Max RCF: 4650×g  
 Tube size: Φ30×116mm

## No.2



**Order No.:10003200150**  
 Rotor: Swing out rotor  
 Capacity: 32×15ml  
 Max speed: 4000rpm  
 Max RCF: 2980×g  
 Tube size: Φ17×121mm



**Order No.:10000800500**  
 Rotor: Swing out rotor  
 Capacity: 8×50ml  
 Max speed: 4000rpm  
 Max RCF: 2980×g  
 Tube size: Φ30×116mm

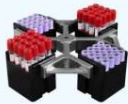


**Order No.:10000801000**  
 Rotor: Swing out rotor  
 Capacity: 8×100ml  
 Max speed: 4000rpm  
 Max RCF: 2980×g  
 Tube size: Φ38×114mm



**Order No.:10004800077**  
 Rotor: Swing out rotor  
 Capacity: 48×2~7ml blood tube  
 Max speed: 4000rpm  
 Max RCF: 3100×g  
 Tube size: Φ13×75~100mm

## No.2



**Order No.:10006400077**  
 Rotor: Swing out rotor  
 Capacity: 64×2~7ml blood tube  
 Max speed: 4000rpm  
 Max RCF: 3100×g  
 Tube size: Φ13×75~100mm

## No.3



**Order No.:10000402500**  
 Rotor: Swing out rotor  
 Capacity: 4×250ml  
 Max speed: 5000rpm  
 Max RCF: 5200×g  
 Tube size: Φ63×111mm

	Capacity	Order No.
a d a p t e r	8×50ml	10200800502
	4×100ml	10200401000
	36×10ml	10203600100
	40×7ml blood tube	10204000077
	20×15ml	10202000150

## No.4



**Order No.:10000600024**  
 Rotor: Microplate rotor  
 Capacity: 2×3×96 well plate  
 Max speed: 4000rpm  
 Max RCF: 1970×g  
 max: 128×87×60mm

## No.5



**Order No.:10000405000**  
 Rotor: Swing out rotor  
 Capacity: 4×500ml  
 Max speed: 4000rpm  
 Max RCF: 3400×g  
 Tube size: Φ80×137mm



**Order No.:10201600500(normal)**  
**Order No.:10201600501(aerosol tight)**  
 Adapter in 4\*500ml(normal)  
 Adapter in 4\*500ml(aerosol tight)  
 Capacity: 16×50ml  
 Max speed: 4000rpm  
 Max RCF: 3400×g  
 Tube size: Φ29×116mm



**Order No.:10203600150(normal)**  
**Order No.:10203600151(aerosol tight)**  
 Adapter in 4\*500ml(normal)  
 Adapter in 4\*500ml(aerosol tight)  
 Capacity: 36×15ml  
 Max speed: 4000rpm  
 Max RCF: 3400×g  
 Tube size: Φ17×121mm



**Order No.:10207600077(normal)**  
**Order No.:10207600071(aerosol tight)**  
 Adapter in 4\*500ml(normal)  
 Adapter in 4\*500ml(aerosol tight)  
 Capacity: 76×2~7ml blood tube  
 Max speed: 4000rpm  
 Max RCF: 3400×g  
 Tube size: Φ13×75~100mm



**Order No.:10002000500**  
 Rotor: Swing out rotor  
 Capacity: 20×50ml  
 Max speed: 4000rpm  
 Max RCF: 3400×g  
 Tube size: Φ29.5×116mm



**Order No.:10004000150**  
 Rotor: Swing out rotor  
 Capacity: 40×15ml  
 Max speed: 4000rpm  
 Max RCF: 3400×g  
 Tube size: Φ17×121mm



**Order No.:10008000107**  
 Rotor: Swing out rotor  
 Capacity: 80×10ml blood tube  
 Max speed: 4000rpm  
 Max RCF: 3400×g  
 Tube size: Φ15×100mm



**Order No.:10011200077**  
 Rotor: Swing out rotor  
 Capacity: 112×2~7ml blood tube  
 Max speed: 4000rpm  
 Max RCF: 3400×g  
 Tube size: Φ13×75~100mm



**Order No.:10010000020**  
 Rotor: Swing out rotor  
 Capacity: 100×1.5ml  
 Max speed: 4000rpm  
 Max RCF: 3400×g  
 Tube size: Φ11×42mm



**Order No.:10014800050**  
 Rotor: Swing out rotor  
 Capacity: 148×5ml RIA tube  
 Max speed: 4000rpm  
 Max RCF: 3400×g  
 Tube size: Φ13×75~100mm

## No.5



**Order No.:10009600077**  
 Rotor: Swing out rotor  
 Capacity: 96×2~7ml blood tube  
 Max speed: 4000rpm  
 Max RCF: 3400×g  
 Tube size: Φ13×75~100mm



**Order No.:10000800024**  
 Rotor: Microplate rotor  
 Capacity: 4×2×96 well plate  
 Max speed: 4000rpm  
 Max RCF: 3400×g  
 max: 128×87×60mm



**Order No.:10000402502**  
 Rotor: Swing out rotor  
 Capacity: 4×250ml conical bottom  
 Max speed: 4000rpm  
 Max RCF: 3400×g  
 Tube size: Φ60×164mm

## No.6



**Order No.:10101200150**  
 Rotor: Fixed angle rotor  
 Capacity: 12×15ml  
 Max speed: 6000rpm  
 Max RCF: 5120×g  
 Tube size: Φ17×121mm

## No.7



**Order No.:10100600500**  
 Rotor: Fixed angle rotor  
 Capacity: 6×50ml  
 Max speed: 6000rpm  
 Max RCF: 5120×g  
 Tube size: Φ29×116mm

# BENCHTOP LOW SPEED CENTRIFUGE

## DST-5



### Product Overview

DST-5 can be equipped with various swing out rotors for 15ml to 250ml centrifuge tubes/bottle, 13mm blood collection tube and 96 well plate. One machine with multiple functions, can meet a variety of low speed centrifugal needs.



### Product Features

#### USER-FRIENDLY FUNCTIONS

- >up to 100 user-defined programs
- >up to 20 rates acceleration and deceleration
- >up to 99h59m59s timer range
- >up to 5 stages multi-stage centrifugation mode available
- >LED screen shows important parameters
- >RCF can be set directly
- >Water-proof touch key pad, each parameter has corresponding button to set
- >User can reset parameters when rotor is spinning

#### ENSURE SAFETY

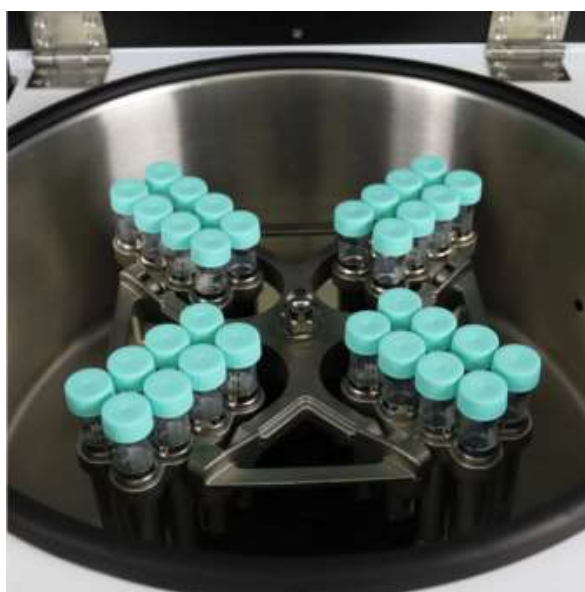
- >Microprocessor control
- >Motorized electronic door lock
- >Door cannot be opened when rotor is spinning
- >Gas hinge to prevent door falling
- >Port in the door for calibration and operation checking
- >Emergency door lock release

#### GOOD COMPONENTS

- >Motor: Variable frequency motor.  
stable running, maintenance free, long life
- >Housing: Thick and strong steel
- >Chamber: Food grade 304 stainless steel.  
anticorrosion and easy to clean
- >Rotor: Stainless steel swing out rotor.
- >Rotors are autoclavable



Model	DST-5
Max speed	5000rpm
Max RCF	4650xg
Max capacity	4x250ml
Timer range	1s to 99h59m59s
Speed accuracy	±10rpm
Noise	≤60dB(A)
Power consumption	500w
Dimension	550x430x350mm
Net weight	39kg





# AVAILABLE ROTORS DST-5

No.1

**Order No.:10000401000**

Rotor: Swing out rotor  
 Capacity: 4×100ml  
 Max speed: 5000rpm  
 Max RCF: 4650×g  
 Tube size: Φ38×114mm

**Order No.:10000400500**

Rotor: Swing out rotor  
 Capacity: 4×50ml  
 Max speed: 5000rpm  
 Max RCF: 4650×g  
 Tube size: Φ30×116mm

No.2

**Order No.:10003200150**

Rotor: Swing out rotor  
 Capacity: 32×15ml  
 Max speed: 4000rpm  
 Max RCF: 2980×g  
 Tube size: Φ17×121mm  
 Can choose adapters for blood tubes

**Order No.:10002400150**

Rotor: Swing out rotor  
 Capacity: 24×15ml  
 Max speed: 4000rpm  
 Max RCF: 2980×g  
 Tube size: Φ17×121mm  
 Can choose adapters for blood tubes

No.2

**Order No.:10000800500**

Rotor: Swing out rotor  
 Capacity: 8×50ml  
 Max speed: 4000rpm  
 Max RCF: 2980×g  
 Tube size: Φ30×116mm

**Order No.:10000801000**

Rotor: Swing out rotor  
 Capacity: 8×100ml  
 Max speed: 4000rpm  
 Max RCF: 2980×g  
 Tube size: Φ38×114mm

No.3

**Order No.:10000402500**

Rotor: Swing out rotor  
 Capacity: 4×250ml  
 Max speed: 4000rpm  
 Max RCF: 2980×g  
 Tube size: Φ63×111mm

	Capacity	Order No.
a	8×50ml	10200800502
d	4×100ml	10200401000
a	36×10ml	10203600100
p	40×7ml	10204000077
t	20×15ml	10202000150
e		
r		

No.3

**Order No.:10004800077**

Rotor: Swing out rotor  
 Capacity: 48×2~7ml blood tube  
 Max speed: 4000rpm  
 Max RCF: 2980×g  
 Tube size: Φ13×75~100mm

**Order No.:10006400077**

Rotor: Swing out rotor  
 Capacity: 64×2~7ml blood tube  
 Max speed: 4000rpm  
 Max RCF: 2980×g  
 Tube size: Φ13×75~100mm

No.4

**Order No.:10000600024**

Rotor: Microplate rotor  
 Capacity: 2×3×96 well plate  
 Max speed: 4000rpm  
 Max RCF: 1971×g  
 max: 128×87×60mm

# BENCHTOP HIGH SPEED CENTRIFUGE

## DSG-16



### Product Overview

DSG-16 high speed benchtop centrifuge spins sample volumes up to 6 x 100 ml, 48x1.5/2.2ml tubes or 8 x 50 ml conical tubes with a intelligent LCD touch screen. For 24x1.5/2.2 mL tubes, aerosol-tight rotor is optional.



### Product Features

#### USER-FRIENDLY FUNCTIONS

- >up to 1000 user-defined programs
- >up to 1000 run histories,can be exported via USB
- >up to 40 rates acceleration and deceleration
- >up to 5 stages multi-stage centrifugation mode available
- >up to 99h59m59s timer range, 1s increment

#### ENSURE SAFETY

- >Automatic rotor recognition to prevent overspeed
- >Imbalance detection by three axis gyroscope
- >Motorized electronic door lock
- >Door cannot be opened when rotor is spinning
- >Gas hinge to prevent door falling
- >Port in the door for calibration and operation checking
- >Emergency door lock release
- >Password to lock the device

#### LCD TOUCH SCREEN

- >Simple and clear to show all parameters
- >Touch screen,easy to set parameters
- >RCF can be set directly
- >RPM and RCF covert automatically
- >User can set parameters even with gloves
- >User can reset parameters when rotor is spinning

#### Good components

- >Motor: Variable frequency motor.  
stable running,maintenance free,long life
- >Housing: Thick and strong steel
- >Chamber: 304 stainless steel with teflon coating.  
anticorrosion and easy to clean
- >Rotor: Aluminum alloy fixed angle rotor;  
Steel swing out rotor.
- >Rotors are autoclavable

Model	DSG-16
Max speed	16500rpm
Max RCF	24814xg
Max capacity	6x100ml
Timer range	1s to 99h59m59s
Speed accuracy	±10rpm
Noise	≤60dB(A)
Power consumption	500w
Dimension	440x360x315mm
Net weight	29kg



## AVAILABLE ROTORS FOR DSG-16

 <p>Rotor: Fixed angle rotor Capacity: 12x1.5/2.2ml Max speed: 16500rpm Max RCF: 19053×g Tube size: Φ11x42mm</p>	 <p>Rotor: Fixed angle rotor Capacity: 12x5ml Max speed: 15000rpm Max RCF: 18287×g Tube size: Φ14x54mm</p>	 <p>Rotor: Fixed angle rotor Capacity: 24x1.5/2.2ml Max speed: 16000rpm Max RCF: 24814×g Tube size: Φ11x42mm</p>
 <p>Rotor: Fixed angle rotor (aerosol tight) Capacity: 24x1.5/2.2ml Max speed: 16000rpm Max RCF: 24814×g Tube size: Φ11x42mm</p>	 <p>Rotor: Fixed angle rotor Capacity: 12x10ml Max speed: 13000rpm Max RCF: 15625×g Tube size: Φ16x86mm</p>	 <p>Rotor: Fixed angle rotor Capacity: 36x1.5/2.2ml Max speed: 13000rpm Max RCF: 15625×g Tube size: Φ11x42mm</p>
 <p>Rotor: Fixed angle rotor Capacity: 6x50ml conical bottom Max speed: 12000rpm Max RCF: 15712×g Tube size: Φ29x116mm</p>	 <p>Rotor: Fixed angle rotor Capacity: 6x50ml round bottom Max speed: 12000rpm Max RCF: 15712×g Tube size: Φ29x111mm</p>	 <p>Rotor: Fixed angle rotor Capacity: 48x1.5/2.2ml Max speed: 12000rpm Max RCF: 15712×g Tube size: Φ11x42mm</p>
 <p>Rotor: Fixed angle rotor Capacity: 4x100ml Max speed: 10000rpm Max RCF: 11045×g Tube size: Φ38x123mm</p>	 <p>Rotor: Fixed angle rotor Capacity: 8x50ml conical bottom Max speed: 10000rpm Max RCF: 11045×g Tube size: Φ29x116mm</p>	 <p>Rotor: Fixed angle rotor Capacity: 8x50ml round bottom Max speed: 10000rpm Max RCF: 11045×g Tube size: Φ29x111mm</p>
 <p>Rotor: Fixed angle rotor Capacity: 12x15ml Max speed: 10000rpm Max RCF: 11045×g Tube size: Φ17x121mm</p>	 <p>Rotor: Fixed angle rotor Capacity: 24x10ml Max speed: 10000rpm Max RCF: 11045×g Tube size: Φ16x86mm</p>	 <p>Rotor: Fixed angle rotor Capacity: 6x10ml Max speed: 16000rpm Max RCF: 19004×g Tube size: Φ16x86mm</p>
 <p>Rotor: Fixed angle rotor Capacity: 8x15ml Max speed: 13000rpm Max RCF: 14945×g Tube size: Φ17x121mm</p>	 <p>Rotor: Fixed angle rotor Capacity: 6x30ml Max speed: 13000rpm Max RCF: 14945×g Tube size: Φ25.5x100mm</p>	 <p>Rotor: Fixed angle rotor Capacity: 8x0.2ml PCR strip Max speed: 13000rpm Max RCF: 14643×g</p>
 <p>Rotor: Fixed angle rotor Capacity: 6x100ml Max speed: 8000rpm Max RCF: 7720×g Tube size: Φ38x123mm</p>	 <p>Rotor: Microplate rotor Capacity: 2x2x48 well plate Max speed: 4000rpm Max RCF: 1538×g max: 128x48x60mm</p>	



# BENCHTOP HIGH SPEED CENTRIFUGE

## DSG-18



### Product Overview

DSG-18 high speed benchtop centrifuge spins sample volumes up to 6 x 100 ml, 48x1.5/2.2ml tubes or 8 x 50 ml conical tubes with a intelligent LCD touch screen. For 24x1.5/2.2 mL tubes, aerosol-tight rotor is optional.



### Product Features

#### USER-FRIENDLY FUNCTIONS

- >up to 1000 user-defined programs
- >up to 1000 run histories,can be exported via USB
- >up to 40 rates acceleration and deceleration
- >up to 5 stages multi-stage centrifugation mode available
- >up to 99h59m59s timer range, 1s increment

#### LCD TOUCH SCREEN

- >Simple and clear to show all parameters
- >Touch screen,easy to set parameters
- >RCF can be set directly
- >RPM and RCF covert automatically
- >User can set parameters even with gloves
- >User can reset parameters when rotor is spinning

#### ENSURE SAFETY

- >Automatic rotor recognition to prevent overspeed
- >Imbalance detection by three axis gyroscope
- >Motorized electronic door lock
- >Door cannot be opened when rotor is spinning
- >Gas hinge to prevent door falling
- >Port in the door for calibration and operation checking
- >Emergency door lock release
- >Password to lock the device

#### GOOD COMPONENTS

- >Motor: Variable frequency motor.  
stable running,maintenance free,long life
- >Housing: Thick and strong steel
- >Chamber: 304 stainless steel with teflon coating.  
anticorrosion and easy to clean
- >Rotor: Aluminum alloy fixed angle rotor;  
Steel swing out rotor.
- >Rotors are autoclavable

Model	DSG-18
Max speed	18000rpm
Max RCF	24814xg
Max capacity	6x100ml
Timer range	1s to 99h59m59s
Speed accuracy	±10rpm
Noise	≤60dB(A)
Power consumption	500w
Dimension	440x360x315mm
Net weight	29kg



## AVAILABLE ROTORS FOR DSG-18

 <p>Rotor:Fixed angle rotor Capacity:12x1.5/2.2ml Max speed:18000rpm Max RCF:22675×g Tube size:Φ11x42mm</p>	 <p>Rotor:Fixed angle rotor Capacity:12x5ml Max speed:15000rpm Max RCF:18287×g Tube size:Φ14x54mm</p>	 <p>Rotor:Fixed angle rotor Capacity:24x1.5/2.2ml Max speed:16000rpm Max RCF:24814×g Tube size:Φ11x42mm</p>
 <p>Rotor:Fixed angle rotor (aerosol tight) Capacity:24x1.5/2.2ml Max speed:16000rpm Max RCF:24814×g Tube size:Φ11x42mm</p>	 <p>Rotor:Fixed angle rotor Capacity:12x10ml Max speed:13000rpm Max RCF:15625×g Tube size:Φ16x86mm</p>	 <p>Rotor:Fixed angle rotor Capacity:36x1.5/2.2ml Max speed:13000rpm Max RCF:15625×g Tube size:Φ11x42mm</p>
 <p>Rotor:Fixed angle rotor Capacity:6x50ml conical bottom Max speed:12000rpm Max RCF:15712×g Tube size:Φ29x116mm</p>	 <p>Rotor:Fixed angle rotor Capacity:6x50ml round bottom Max speed:12000rpm Max RCF:15712×g Tube size:Φ29x111mm</p>	 <p>Rotor:Fixed angle rotor Capacity:48x1.5/2.2ml Max speed:12000rpm Max RCF:15712×g Tube size:Φ11x42mm</p>
 <p>Rotor:Fixed angle rotor Capacity:4x100ml Max speed:10000rpm Max RCF:11045×g Tube size:Φ38x123mm</p>	 <p>Rotor:Fixed angle rotor Capacity:8x50ml conical bottom Max speed:10000rpm Max RCF:11045×g Tube size:Φ29x116mm</p>	 <p>Rotor:Fixed angle rotor Capacity:8x50ml round bottom Max speed:10000rpm Max RCF:11045×g Tube size:Φ29x111mm</p>
 <p>Rotor:Fixed angle rotor Capacity:12x15ml Max speed:10000rpm Max RCF:11045×g Tube size:Φ17x121mm</p>	 <p>Rotor:Fixed angle rotor Capacity:24x10ml Max speed:10000rpm Max RCF:11045×g Tube size:Φ16x86mm</p>	 <p>Rotor:Fixed angle rotor Capacity:6x10ml Max speed:16000rpm Max RCF:19004×g Tube size:Φ16x86mm</p>
 <p>Rotor:Fixed angle rotor Capacity:8x15ml Max speed:13000rpm Max RCF:14945×g Tube size:Φ17x121mm</p>	 <p>Rotor:Fixed angle rotor Capacity:6x30ml Max speed:13000rpm Max RCF:14945×g Tube size:Φ25.5x100mm</p>	 <p>Rotor:Fixed angle rotor Capacity:8x0.2ml PCR strip Max speed:13000rpm Max RCF:14643×g</p>
 <p>Rotor:Fixed angle rotor Capacity:6x100ml Max speed:8000rpm Max RCF:7720×g Tube size:Φ38x123mm</p>	 <p>Rotor:Microplate rotor Capacity:2x2x48 well plate Max speed:4000rpm Max RCF:1538×g max: 128x48x60mm</p>	

# BENCHTOP HIGH SPEED CENTRIFUGE

## DSG-20



### Product Overview

DSG-20 high speed benchtop centrifuge spins sample volumes up to 6 x 100 ml, 48x1.5/2.2ml tubes or 8 x 50 ml conical tubes with a intelligent LCD touch screen. For 24x1.5/2.2 mL tubes, aerosol-tight rotor is optional.



### Product Features

#### USER-FRIENDLY FUNCTIONS

- >up to 1000 user-defined programs
- >up to 1000 run histories,can be exported via USB
- >up to 40 rates acceleration and deceleration
- >up to 5 stages multi-stage centrifugation mode available
- >up to 99h59m59s timer range, 1s increment

#### LCD TOUCH SCREEN

- >Simple and clear to show all parameters
- >Touch screen,easy to set parameters
- >RCF can be set directly
- >RPM and RCF covert automatically
- >User can set parameters even with gloves
- >User can reset parameters when rotor is spinning

#### ENSURE SAFETY

- >Automatic rotor recognition to prevent overspeed
- >Imbalance detection by three axis gyroscope
- >Motorized electronic door lock
- >Door cannot be opened when rotor is spinning
- >Gas hinge to prevent door falling
- >Port in the door for calibration and operation checking
- >Emergency door lock release
- >Password to lock the device

#### GOOD COMPONENTS

- >Motor: Variable frequency motor.  
stable running,maintenance free,long life
- >Housing: Thick and strong steel
- >Chamber: 304 stainless steel with teflon coating.  
anticorrosion and easy to clean
- >Rotor: Aluminum alloy fixed angle rotor;  
Steel swing out rotor.
- >Rotors are autoclavable

Model	DSG-20
Max speed	20000rpm
Max RCF	27994xg
Max capacity	6x100ml
Timer range	1s to 99h59m59s
Speed accuracy	±10rpm
Noise	≤60dB(A)
Power consumption	500w
Dimension	440x360x315mm
Net weight	29kg



## AVAILABLE ROTORS FOR DSG-20

 <p>Rotor: Fixed angle rotor Capacity: 12x1.5/2.2ml Max speed: 20000rpm Max RCF: 27994xg Tube size: Φ11x42mm</p>	 <p>Rotor: Fixed angle rotor Capacity: 12x5ml Max speed: 15000rpm Max RCF: 18287xg Tube size: Φ14x54mm</p>	 <p>Rotor: Fixed angle rotor Capacity: 24x1.5/2.2ml Max speed: 16000rpm Max RCF: 24814xg Tube size: Φ11x42mm</p>
 <p>Rotor: Fixed angle rotor (aerosol tight) Capacity: 24x1.5/2.2ml Max speed: 16000rpm Max RCF: 24814xg Tube size: Φ11x42mm</p>	 <p>Rotor: Fixed angle rotor Capacity: 12x10ml Max speed: 13000rpm Max RCF: 15625xg Tube size: Φ16x86mm</p>	 <p>Rotor: Fixed angle rotor Capacity: 36x1.5/2.2ml Max speed: 13000rpm Max RCF: 15625xg Tube size: Φ11x42mm</p>
 <p>Rotor: Fixed angle rotor Capacity: 6x50ml conical bottom Max speed: 12000rpm Max RCF: 15712xg Tube size: Φ29x116mm</p>	 <p>Rotor: Fixed angle rotor Capacity: 6x50ml round bottom Max speed: 12000rpm Max RCF: 15712xg Tube size: Φ29x111mm</p>	 <p>Rotor: Fixed angle rotor Capacity: 48x1.5/2.2ml Max speed: 12000rpm Max RCF: 15712xg Tube size: Φ11x42mm</p>
 <p>Rotor: Fixed angle rotor Capacity: 4x100ml Max speed: 10000rpm Max RCF: 11045xg Tube size: Φ38x123mm</p>	 <p>Rotor: Fixed angle rotor Capacity: 8x50ml conical bottom Max speed: 10000rpm Max RCF: 11045xg Tube size: Φ29x116mm</p>	 <p>Rotor: Fixed angle rotor Capacity: 8x50ml round bottom Max speed: 10000rpm Max RCF: 11045xg Tube size: Φ29x111mm</p>
 <p>Rotor: Fixed angle rotor Capacity: 12x15ml Max speed: 10000rpm Max RCF: 11045xg Tube size: Φ17x121mm</p>	 <p>Rotor: Fixed angle rotor Capacity: 24x10ml Max speed: 10000rpm Max RCF: 11045xg Tube size: Φ16x86mm</p>	 <p>Rotor: Fixed angle rotor Capacity: 6x10ml Max speed: 16000rpm Max RCF: 19004xg Tube size: Φ16x86mm</p>
 <p>Rotor: Fixed angle rotor Capacity: 8x15ml Max speed: 13000rpm Max RCF: 14945xg Tube size: Φ17x121mm</p>	 <p>Rotor: Fixed angle rotor Capacity: 6x30ml Max speed: 13000rpm Max RCF: 14945xg Tube size: Φ25.5x100mm</p>	 <p>Rotor: Fixed angle rotor Capacity: 8x0.2ml PCR strip Max speed: 13000rpm Max RCF: 14643xg</p>
 <p>Rotor: Fixed angle rotor Capacity: 6x100ml Max speed: 8000rpm Max RCF: 7720xg Tube size: Φ38x123mm</p>	 <p>Rotor: Microplate rotor Capacity: 2x2x48 well plate Max speed: 4000rpm Max RCF: 1538xg max: 128x48x60mm</p>	



# BENCHTOP LOW SPEED REFRIGERATED CENTRIFUGE

## DSL-6



### Product Overview

DSL-6 is a low speed centrifuge with refrigerated function. The max capacity of it is 4\*250ml. It can fit kinds of swing out rotors and adaptors. And it can also use fixed angle rotor.



### Product Features

#### USER-FRIENDLY FUNCTIONS

- >up to 1000 user-defined programs
- >up to 100000 run histories
- >up to 40 rates acceleration and deceleration, speed downs curvly slowly from 600rpm to 0rpm to prevent samples shake
- >up to 7 stages multi-stage centrifugation mode available
- >up to 99h59m59s timer range, 1s increment
- >Support short spin and continuous centrifugation
- >Curve display---Speed curve, RCF curve and Temperature curve  
are displayed together, clear to see their changing and relations.

#### REFRIGERATION

- >High quality compressor unit
- >-20°C to +40°C, 1°C increment
- >±1°C high temperature accuracy
- >CFC-free refrigerant
- >PID dynamic temperature control
- >Temperature sensor inside the chamber
- >Starts refrigeration when power on
- >Maintains refrigeration after spin
- >With ECO energy-saving module

#### LCD TOUCH SCREEN

- >Simple and clear to show all parameters
- >Touch screen, easy to set parameters
- >RCF can be set directly
- >Intelligent status display, real-time and real values
- >User can set parameters even with gloves
- >User can reset parameters when rotor is spinning

#### GOOD COMPONENTS

- >Motor: Variable frequency motor.  
stable running, maintenance free, long life
- >Housing: Thick and strong steel
- >Chamber: 316 stainless steel with teflon coating.  
anticorrosion and easy to clean
- >Rotor: Aluminum alloy fixed angle rotor;  
Steel/Stainless steel swing out rotor.
- >Rotors are autoclavable

#### ENSURE SAFETY

- >Imbalance detection by three axis gyroscope
- >Motorized electronic door lock
- >Door cannot be opened when rotor is spinning
- >Gas hinges to prevent door falling
- >Port in the door for calibration and operation checking
- >Emergency door lock release
- >Password to lock the device
- >User management with permission allocation
- >Various protections to ensure safe centrifugation
- >With never be lost electronic instruction manual

Model	DSL-6
Max speed	6000rpm
Max RCF	5123xg
Max capacity	4x250ml
Temperature range	-20°C to +40°C
Temperature accuracy	±1°C
Timer range	1s to 99h59m59s
Speed accuracy	±10rpm
Noise	≤56dB(A)
Power consumption	1500w
Dimension	600x680x420
Net weight	108kg





## AVAILABLE ROTORS FOR DSL-6



**Order No.:10000401000**

Rotor:Swing out rotor  
Capacity: 4×100ml  
Max speed:5000rpm  
Max RCF:4650×g  
Tube size:Φ38×114mm



**Order No.:10000400500**

Rotor:Swing out rotor  
Capacity: 4×50ml  
Max speed:5000rpm  
Max RCF:4650×g  
Tube size:Φ30×116mm



**Order No.:10003200150**

Rotor:Swing out rotor  
Capacity: 32×15ml  
Max speed:4000rpm  
Max RCF:2980×g  
Tube size:Φ17×121mm



**Order No.:10000800500**

Rotor:Swing out rotor  
Capacity:8×50ml  
Max speed:4000rpm  
Max RCF:2980×g  
Tube size:Φ30×116mm



**Order No.:10000801000**

Rotor:Swing out rotor  
Capacity:8×100ml  
Max speed:4000rpm  
Max RCF:2980×g  
Tube size:Φ38×114mm



**Order No.:10000402500**

Rotor:Swing out rotor  
Capacity:4×250ml  
Max speed:4000rpm  
Max RCF:2980×g  
Tube size:Φ63×111mm

A d a p t e r	Capacity	Order No.
	8×50ml	10200800502
	4×100ml	10200401000
	36×10ml	10203600100
	40×7ml	10204000077
	20×15ml	10202000150



**Order No.:10004800077**

Rotor:Swing out rotor  
Capacity:48×2~7ml blood tube  
Max speed:4000rpm  
Max RCF:2951×g  
Tube size:Φ13×75~100mm



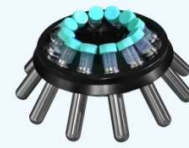
**Order No.:10006400077**

Rotor:Swing out rotor  
Capacity:64×2~7ml blood tube  
Max speed:4000rpm  
Max RCF:2951×g  
Tube size:Φ13×75~100mm



**Order No.:10100600500**

Rotor:Fixed angle rotor  
Capacity: 6×50ml  
Max speed:6000rpm  
Max RCF:5123×g  
Tube size:Φ29×116mm



**Order No.:10101200150**

Rotor:Fixed angle rotor  
Capacity: 12×15ml  
Max speed:6000rpm  
Max RCF:5123×g  
Tube size:Φ17×121mm



**Order No.:10000600024**

Rotor:Microplate rotor  
Capacity:2×3×96 well plate  
Max speed:4000rpm  
Max RCF:1971×g  
max: 128×87×60mm

# BENCHTOP LOW SPEED REFRIGERATED CENTRIFUGE

## DSL-6M



### Product Overview

DSL-6M is low speed refrigerated centrifuge with max speed 6000rpm for large capacity centrifugation. It can fit variable swing out rotors and adaptors for max volume 750ml. There are kinds of rotors for vacuum blood collection tubes, can centrifuge 112 holes at most. The biosafety rotor 76\*2-7ml can be chosen.



### Product Features

#### USER-FRIENDLY FUNCTIONS

- >up to 1000 user-defined programs
- >up to 100000 run histories
- >up to 40 rates acceleration and deceleration, speed downs curvly slowly from 600rpm to 0rpm to prevent samples shake
- >up to 7 stages multi-stage centrifugation mode available
- >up to 99h59m59s timer range, 1s increment
- >Support short spin and continuous centrifugation
- >Curve display---Speed curve, RCF curve and Temperature curve are displayed together, clear to see their changing and relations

#### REFRIGERATION

- >High quality compressor unit
- >-20°C to +40°C, 1°C increment
- >±1°C high temperature accuracy
- >CFC-free refrigerant
- >PID dynamic temperature control
- >Temperature sensor inside the chamber
- >Starts refrigeration when power on
- >Maintains refrigeration after spin
- >With ECO energy-saving module

#### LCD TOUCH SCREEN

- >Simple and clear to show all parameters
- >Touch screen, easy to set parameters
- >RCF can be set directly
- >Intelligent status display, real-time and real values
- >User can set parameters even with gloves
- >User can reset parameters when rotor is spinning

#### GOOD COMPONENTS

- >Motor: Variable frequency motor.  
stable running, maintenance free, long life
- >Housing: Thick and strong steel
- >Chamber: 316 stainless steel with teflon coating.  
anticorrosion and easy to clean
- >Rotor: Aluminum alloy fixed angle rotor;  
Steel/Stainless steel swing out rotor.
- >Rotors are autoclavable

#### ENSURE SAFETY

- >Imbalance detection by three axis gyroscope
- >Motorized electronic door lock
- >Door cannot be opened when rotor is spinning
- >Gas hinges to prevent door falling
- >Port in the door for calibration and operation checking
- >Emergency door lock release
- >Password to lock the device
- >User management with permission allocation
- >Various protections to ensure safe centrifugation
- >With never be lost electronic instruction manual

Model	DSL-6M
Max speed	6000rpm
Max RCF	5123xg
Max capacity	4x750ml
Temperature range	-20°C to +40°C
Temperature accuracy	±1°C
Timer range	1s to 99h59m59s
Speed accuracy	±10rpm
Noise	≤56dB(A)
Power consumption	1500w
Dimension	600x680x420
Net weight	108kg

# AVAILABLE ROTORS FOR DSL-6M



Order No.:10000401000  
 Rotor:Swing out rotor  
 Capacity: 4x100ml  
 Max speed:5000rpm  
 Max RCF:4650xg  
 Tube size:Φ38x114mm



Order No.:10000400500  
 Rotor:Swing out rotor  
 Capacity: 4x50ml  
 Max speed:5000rpm  
 Max RCF:4650xg  
 Tube size:Φ30x116mm



Order No.:10003200150  
 Rotor:Swing out rotor  
 Capacity: 32x15ml  
 Max speed:4000rpm  
 Max RCF:2980xg  
 Tube size:Φ17x121mm



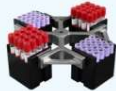
Order No.:10000800500  
 Rotor:Swing out rotor  
 Capacity:8x50ml  
 Max speed:4000rpm  
 Max RCF:2980xg  
 Tube size:Φ30x116mm



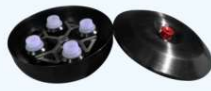
Order No.:10000801000  
 Rotor:Swing out rotor  
 Capacity:8x100ml  
 Max speed:4000rpm  
 Max RCF:2980xg  
 Tube size:Φ38x114mm



Order No.:10004800077  
 Rotor:Swing out rotor  
 Capacity:48x2~7ml blood tube  
 Max speed:4000rpm  
 Max RCF:3100xg  
 Tube size:Φ13x75~100mm



Order No.:10006400077  
 Rotor:Swing out rotor  
 Capacity:64x2~7ml blood tube  
 Max speed:4000rpm  
 Max RCF:3100xg  
 Tube size:Φ13x75~100mm



Order No.:10000402500  
 Rotor:Swing out rotor  
 Capacity:4x250ml  
 Max speed:5000rpm  
 Max RCF:5201xg  
 Tube size:Φ63x111mm

A d a p t e r	Capacity	Order No.
	8x50ml	10200800502
	4x100ml	10200401000
	36x10ml	10203600100
	40x7ml	10204000077
	20x15ml	10202000150



Order No.:10000600024  
 Rotor:Microplate rotor  
 Capacity:2x3x96 well plate  
 Max speed:4000rpm  
 Max RCF:1971xg  
 max: 128x87x60mm



Order No.:10000405000  
 Rotor:Swing out rotor  
 Capacity:4x500ml  
 Max speed:4200rpm  
 Max RCF:3551xg  
 Tube size:Φ80x137mm



Order No.:10201600500(normal)  
 Order No.:10201600501(aerosol tight)  
 Adapter in 4x500ml(normal)  
 Adapter in 4x500ml(aerosol tight)  
 Capacity:16x50ml  
 Max speed:4200rpm  
 Max RCF:3551xg  
 Tube size:Φ29x116mm



Order No.:10203600150(normal)  
 Order No.:10203600151(aerosol tight)  
 Adapter in 4x500ml(normal)  
 Adapter in 4x500ml(aerosol tight)  
 Capacity:36x15ml  
 Max speed:4200rpm  
 Max RCF:3551xg  
 Tube size:Φ17x121mm



Order No.:10207600077(normal)  
 Order No.:10207600071(aerosol tight)  
 Adapter in 4x500ml(normal)  
 Adapter in 4x500ml(aerosol tight)  
 Capacity:76x2~7ml blood tube  
 Max speed:4200rpm  
 Max RCF:3551xg  
 Tube size:Φ13x75~100mm



Order No.:10002000500  
 Rotor:Swing out rotor  
 Capacity:20x50ml  
 Max speed:4200rpm  
 Max RCF:3551xg  
 Tube size:Φ29.5x116mm



Order No.:10004000150  
 Rotor:Swing out rotor  
 Capacity:40x15ml  
 Max speed:4200rpm  
 Max RCF:3551xg  
 Tube size:Φ17x121mm



Order No.:10008000107  
 Rotor:Swing out rotor  
 Capacity:80x10ml blood tube  
 Max speed:4200rpm  
 Max RCF:3551xg  
 Tube size:Φ15x100mm



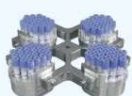
Order No.:10011200077  
 Rotor:Swing out rotor  
 Capacity:112x2~7ml blood tube  
 Max speed:4200rpm  
 Max RCF:3551xg  
 Tube size:Φ13x75~100mm



Order No.:10010000020  
 Rotor:Swing out rotor  
 Capacity:100x1.5ml  
 Max speed:4200rpm  
 Max RCF:3551xg  
 Tube size:Φ11x42mm



Order No.:10014800050  
 Rotor:Swing out rotor  
 Capacity:148x5ml RIA tube  
 Max speed:4200rpm  
 Max RCF:3551xg  
 Tube size:Φ13x75~100mm



Order No.:10009600077  
 Rotor:Swing out rotor  
 Capacity:96x2~7ml blood tube  
 Max speed:4200rpm  
 Max RCF:3551xg  
 Tube size:Φ13x75~100mm



Order No.:10000800024  
 Rotor:Microplate rotor  
 Capacity:4x2x96 well plate  
 Max speed:4200rpm  
 Max RCF:3551xg  
 max: 128x87x60mm



Order No.:10000402502  
 Rotor:Swing out rotor  
 Capacity: 4x250ml  
 conical bottom  
 Max speed:4200rpm  
 Max RCF:3551xg  
 Tube size:Φ60x164mm



Order No.:10000407500  
 Rotor:Swing out rotor  
 Capacity:4x750ml  
 Max speed:4000rpm  
 Max RCF:3500xg  
 Tube size:Φ100x141mm



Order No.:10201201000  
 Adapter in 4x750ml  
 Capacity:12x100ml  
 Max speed:4000rpm  
 Max RCF:3500xg  
 Tube size:Φ38x114mm



Order No.:10202000500  
 Adapter in 4x750ml  
 Capacity:20x50ml  
 Max speed:4000rpm  
 Max RCF:3500xg  
 Tube size:Φ29x116mm



Order No.:10202800500  
 Adapter in 4x750ml  
 Capacity:28x50ml  
 Max speed:4000rpm  
 Max RCF:3500xg  
 Tube size:Φ29x116mm



Order No.:10205600150  
 Adapter in 4x750ml  
 Capacity:96x15ml  
 Max speed:4000rpm  
 Max RCF:3500xg  
 Tube size:Φ17x121mm



Order No.:10209600077  
 Adapter in 4x750ml  
 Capacity:96x2~7ml blood tube  
 Max speed:4000rpm  
 Max RCF:3500xg  
 Tube size:Φ13x75~100mm



Order No.:10000602500  
 Rotor:Swing out rotor  
 Capacity:6x250ml  
 Max speed:4000rpm  
 Max RCF:3581xg  
 Tube size:Φ63x111mm



Order No.:10100600500  
 Rotor:Fixed angle rotor  
 Capacity: 6x50ml  
 Max speed:6000rpm  
 Max RCF:5123xg  
 Tube size:Φ29x116mm



Order No.:10101200150  
 Rotor:Fixed angle rotor  
 Capacity: 12x15ml  
 Max speed:6000rpm  
 Max RCF:5123xg  
 Tube size:Φ17x121mm



# BENCHTOP HIGH SPEED REFRIGERATED CENTRIFUGE

## DSL-16



### Product Overview

DSL-16 is a practical benchtop refrigerated centrifuge which can hold sample volume from 0.2mL-6x100ml. All steel body, LCD and LED dual screen display. Max speed can reach 16500rpm. This unit includes refrigeration with a temperature range from -20°C to +40°C.



### Product Features

#### USER-FRIENDLY FUNCTIONS

- >12 user-defined programs
- >40 rates acceleration and deceleration
- >up to 99h59m timer range
- >RCF can be set directly.
- >LCD&LED screen show parameters simply and clearly
- >Water-proof touch key pad, each parameter has corresponding button to set
- >User can reset parameters when rotor is spinning

#### REFRIGERATION

- >Good compressor unit
- >-20°C to +40°C, 1°C increment
- >±1°C high temperature accuracy
- >CFC-free refrigerant
- >Temperature sensor inside the chamber
- >Starts refrigeration when power on
- >Maintains refrigeration after spin

#### ENSURE SAFETY

- >Automatic rotor recognition to prevent overspeed
- >Imbalance detection by three axis gyroscope
- >Motorized electronic door lock
- >Door cannot be opened when rotor is spinning
- >Gas hinge to prevent door falling
- >Port in the door for calibration and operation checking
- >Emergency door lock release
- >Various protections to ensure safe centrifugation

#### GOOD COMPONENTS

- >Motor: Variable frequency motor. stable running, maintenance free, long life
- >Housing: Thick and strong steel
- >Chamber: 316 stainless steel with teflon coating. anticorrosion and easy to clean
- >Rotor: Aluminum alloy rotor
- >Rotors are autoclavable

Model	DSL-16
Max speed	16500rpm
Max RCF	24760xg
Max capacity	6*100ml
Temperature range	-20°C to +40°C
Temperature accuracy	±1°C
Timer range	1s to 99h59m59s
Speed accuracy	±10rpm
Noise	≤60dB(A)
Power consumption	1200w
Dimension	420x625x370mm
Net weight	53kg



## AVAILABLE ROTORS FOR **DSL-16**

 <p>Rotor:Fixed angle rotor Capacity:12x1.5/2.2ml Max speed:16500rpm Max RCF:19000×g Tube size:Φ11x42mm</p>	 <p>Rotor:Fixed angle rotor Capacity:12x 5ml Max speed:15000rpm Max RCF:18270×g Tube size:Φ14×54mm</p>	 <p>Rotor:Fixed angle rotor Capacity:24x1.5/2.2ml Max speed:16000rpm Max RCF:24760×g Tube size:Φ11x42mm</p>
 <p>Rotor:Fixed angle rotor (aerosol tight) Capacity:24x1.5/2.2ml Max speed:16000rpm Max RCF:24760×g Tube size:Φ11x42mm</p>	 <p>Rotor:Fixed angle rotor Capacity:12×10ml Max speed:13000rpm Max RCF:15620×g Tube size:Φ16×86mm</p>	 <p>Rotor:Fixed angle rotor Capacity:36x1.5/2.2ml Max speed:13000rpm Max RCF:15620×g Tube size:Φ11x42mm</p>
 <p>Rotor:Fixed angle rotor Capacity:6×50ml conical bottom Max speed:12000rpm Max RCF:15970×g Tube size:Φ29×116mm</p>	 <p>Rotor:Fixed angle rotor Capacity:6×50ml round bottom Max speed:12000rpm Max RCF:15970×g Tube size:Φ29×111mm</p>	 <p>Rotor:Fixed angle rotor Capacity:48×1.5/2.2ml Max speed:12000rpm Max RCF:15970×g Tube size:Φ11×42mm</p>
 <p>Rotor:Fixed angle rotor Capacity:4x100ml Max speed:11000rpm Max RCF:12870×g Tube size:Φ38x123mm</p>	 <p>Rotor:Fixed angle rotor Capacity:8x50ml conical bottom Max speed:11000rpm Max RCF:12870×g Tube size:Φ29x116mm</p>	 <p>Rotor:Fixed angle rotor Capacity:8x50ml round bottom Max speed:11000rpm Max RCF:12870×g Tube size:Φ29x111mm</p>
 <p>Rotor:Fixed angle rotor Capacity:12x15ml Max speed:11000rpm Max RCF:12870×g Tube size:Φ17x121mm</p>	 <p>Rotor:Fixed angle rotor Capacity:6×10ml Max speed:16000rpm Max RCF:19070×g Tube size:Φ16×86mm</p>	 <p>Rotor:Fixed angle rotor Capacity:6×30ml Max speed:13000rpm Max RCF:15620×g Tube size:Φ25.5×100mm</p>
 <p>Rotor:Fixed angle rotor Capacity:8×15ml Max speed:13000rpm Max RCF:15620×g Tube size:Φ17×121mm</p>	 <p>Rotor:Microplate rotor Capacity:2x2×48 well plate Max speed:4000rpm Max RCF:1500×g max: 128×48x60mm</p>	 <p>Rotor:Fixed angle rotor Capacity:8x0.2ml PCR strip Max speed:13000rpm Max RCF:14640×g</p>
 <p>Rotor:Fixed angle rotor Capacity:6x100ml Max speed:9000rpm Max RCF:9770×g Tube size:Φ38x123mm</p>		



# BENCHTOP HIGH SPEED REFRIGERATED CENTRIFUGE

## DSL-18



### Product Overview

DSL-18 is a high speed refrigerated centrifuge runs up to 18000rpm. Although the centrifuge is compact, it can run up to 6x100ml. The centrifuge has good refrigeration system-imported compressor unit, PID dynamical temperature control. The centrifuge is equipped with DARSUN RFID automatic rotor identification technology and imbalance detection by three axis gyroscope.



### Product Features

#### USER-FRIENDLY FUNCTIONS

- >up to 1000 user-defined programs
- >up to 100000 run histories
- >up to 40 rates acceleration and deceleration, speed downs curvily slowly from 600rpm to 0rpm to prevent samples shake
- >up to 7 stages multi-stage centrifugation mode available
- >up to 99h59m59s timer range, 1s increment
- >Support short spin and continuous centrifugation
- >Curve display---Speed curve, RCF curve and Temperature curve are displayed together, clear to see their changing and relations.

#### REFRIGERATION

- >High quality compressor unit
- >-20°C to +40°C, 1°C increment
- >±1°C high temperature accuracy
- >CFC-free refrigerant
- >PID dynamic temperature control
- >Temperature sensor inside the chamber
- >Starts refrigeration when power on
- >Maintains refrigeration after spin
- >With ECO energy-saving module

#### ENSURE SAFETY

- >Automatic rotor identification by RFID
- >Imbalance detection by three axis gyroscope
- >Motorized electronic door lock
- >Door cannot be opened when rotor is spinning
- >Gas hinge to prevent door falling
- >Port in the door for calibration and operation checking
- >Emergency door lock release
- >Password to lock the device
- >User management with permission allocation
- >Various protections to ensure safe centrifugation
- >With never be lost electronic instruction manual

#### GOOD COMPONENTS

- >Motor: Variable frequency motor.  
stable running, maintenance free, long life
- >Housing: Thick and strong steel
- >Chamber: 316 stainless steel with teflon coating.  
anticorrosion and easy to clean
- >Rotor: Aluminum alloy fixed angle rotor;  
Steel swing out rotor.
- >Rotors are autoclavable

Model	DSL-18
Max speed	18000rpm
Max RCF	29684xg
Max capacity	6*100ml
Temperature range	-20°C to +40°C
Temperature accuracy	±1°C
Timer range	1s to 99h59m59s
Speed accuracy	±10rpm
Noise	≤56dB(A)
Power consumption	1200w
Dimension	420x520x360mm
Net weight	56kg

#### LCD TOUCH SCREEN

- >Simple and clear to show all parameters
- >Touch screen, easy to set parameters
- >RCF can be set directly
- >Intelligent status display, real-time and real values
- >User can set parameters even with gloves
- >User can reset parameters when rotor is spinning

## AVAILABLE ROTORS FOR **DSL-18**

 <p>Rotor:Fixed angle rotor Capacity:12x1.5/2.2ml Max speed:18000rpm Max RCF:22675×g Tube size:Φ11x42mm</p>	 <p>Rotor:Fixed angle rotor Capacity:12x 5ml Max speed:16500rpm Max RCF:22128×g Tube size:Φ14×54mm</p>	 <p>Rotor:Fixed angle rotor Capacity:24x1.5/2.2ml Max speed:16000rpm Max RCF:24814×g Tube size:Φ11x42mm</p>
 <p>Rotor:Fixed angle rotor (aerosol tight) Capacity:24x1.5/2.2ml Max speed:17500rpm Max RCF:29684×g Tube size:Φ11x42mm</p>	 <p>Rotor:Fixed angle rotor Capacity:12×10ml Max speed:14500rpm Max RCF:19439×g Tube size:Φ16×86mm</p>	 <p>Rotor:Fixed angle rotor Capacity:36x1.5/2.2ml Max speed:14500rpm Max RCF:20356×g Tube size:Φ11x42mm</p>
 <p>Rotor:Fixed angle rotor Capacity:6×50ml conical bottom Max speed:12000rpm Max RCF:15712×g Tube size:Φ29×116mm</p>	 <p>Rotor:Fixed angle rotor Capacity:6×50ml round bottom Max speed:12000rpm Max RCF:15712×g Tube size:Φ29×111mm</p>	 <p>Rotor:Fixed angle rotor Capacity:48×1.5/2.2ml Max speed:12000rpm Max RCF:15712×g Tube size:Φ11×42mm</p>
 <p>Rotor:Fixed angle rotor Capacity:4x100ml Max speed:11000rpm Max RCF:13365×g Tube size:Φ38x123mm</p>	 <p>Rotor:Fixed angle rotor Capacity:8x50ml conical bottom Max speed:11000rpm Max RCF:14041×g Tube size:Φ29x116mm</p>	 <p>Rotor:Fixed angle rotor Capacity:8x50ml round bottom Max speed:11000rpm Max RCF:13365×g Tube size:Φ29x111mm</p>
 <p>Rotor:Fixed angle rotor Capacity:12x15ml Max speed:11000rpm Max RCF:13365×g Tube size:Φ17x121mm</p>	 <p>Rotor:Fixed angle rotor Capacity:6×30ml Max speed:14000rpm Max RCF:18472×g Tube size:Φ25.5×100mm</p>	 <p>Rotor:Fixed angle rotor Capacity:6×10ml Max speed:16000rpm Max RCF:19004×g Tube size:Φ16×86mm</p>
 <p>Rotor:Fixed angle rotor Capacity:8×15ml Max speed:14000rpm Max RCF:17333×g Tube size:Φ17×121mm</p>	 <p>Rotor:Microplate rotor Capacity:2x2×48 well plate Max speed:4000rpm Max RCF:1538×g max: 128×48x60mm</p>	 <p>Rotor:Fixed angle rotor Capacity:8x0.2ml PCR strip Max speed:13000rpm Max RCF:14643×g</p>
 <p>Rotor:Fixed angle rotor Capacity:6x100ml Max speed:9000rpm Max RCF:9771×g Tube size:Φ38x123mm</p>	 <p>Rotor:Fixed angle rotor Capacity:24x2ml (frozen storage tube) Max speed:15000rpm Max RCF:23419×g Tube size: Φ11.5x45mm</p>	

# BENCHTOP HIGH SPEED REFRIGERATED CENTRIFUGE

## DSL-20



### Product Overview

DSL-20 is a high speed refrigerated centrifuge runs up to 20000rpm. Although the centrifuge is compact ,it can runs up to 6x100ml. The centrifuge has good refrigeration system-imported compressor unit, PID dynamical temperature control. The centrifuge equipped with DARSUN RFID automatic rotor identification technology and imbalance detection by three axis gyroscope.



### Product Features

#### USER-FRIENDLY FUNCTIONS

- >up to 1000 user-defined programs
- >up to 100000 run histories
- >up to 40 rates acceleration and deceleration,speed downs curvelly slowly from 600rpm to 0rpm to prevent samples shake
- >up to 7 stages multi-stage centrifugation mode available
- >up to 99h59m59s timer range, 1s increment
- >Support short spin and continuous centrifugation
- >Curve display---Speed curve,RCF curve and Temperature curve are displayed together,clear to see their changing and relations.

#### REFRIGERATION

- >High quality compressor unit
- >-20°C to +40°C ,1°C increment
- >±1°C high temperature accuracy
- >CFC-free refrigerant
- >PID dynamic temperature control
- >Temperature sensor inside the chamber
- >Starts refrigeration when power on
- >Maintains refrigeration after spin
- >With ECO energy-saving module

#### ENSURE SAFETY

- >Automatic rotor identification by RFID
- >Imbalance detection by three axis gyroscope
- >Motorized electronic door lock
- >Door cannot be opened when rotor is spinning
- >Gas hinge to prevent door falling
- >Port in the door for calibration and operation checking
- >Emergency door lock release
- >Password to lock the device
- >User management with permission allocation
- >Various protections to ensure safe centrifugation
- >With never be lost electronic instruction manua

#### GOOD COMPONENTS

- >Motor: Variable frequency motor.  
stable running,maintenance free,long life
- >Housing: Thick and strong steel
- >Chamber: 316 stainless steel with teflon coating.  
anticorrosion and easy to clean
- >Rotor: Aluminum alloy fixed angle rotor;  
Steel swing out rotor.
- >Rotors are autoclavable

Model	DSL-20
Max speed	20000rpm
Max RCF	31405xg
Max capacity	6*100ml
Temperature range	-20°C to +40°C
Temperature accuracy	±1°C
Timer range	1s to 99h59m59s
Speed accuracy	±10rpm
Noise	≤56dB(A)
Power consumption	1200w
Dimension	420x520x360mm
Net weight	56kg

#### LCD TOUCH SCREEN

- >Simple and clear to show all parameters
- >Touch screen,easy to set parameters
- >RCF can be set directly
- >Intelligent status display,real-time and real values
- >User can set parameters even with gloves
- >User can reset parameters when rotor is spinning

## AVAILABLE ROTORS FOR **DSL-20**

 <p>Rotor:Fixed angle rotor Capacity:12x1.5/2.2ml Max speed:20000rpm Max RCF:27994×g Tube size:Φ11x42mm</p>	 <p>Rotor:Fixed angle rotor Capacity:12x 5ml Max speed:17000rpm Max RCF:23489×g Tube size:Φ14×54mm</p>	 <p>Rotor:Fixed angle rotor Capacity:24x1.5/2.2ml Max speed:16000rpm Max RCF:24814×g Tube size:Φ11x42mm</p>
 <p>Rotor:Fixed angle rotor (aerosol tight) Capacity:24x1.5/2.2ml Max speed:18000rpm Max RCF:31405×g Tube size:Φ11x42mm</p>	 <p>Rotor:Fixed angle rotor Capacity:12×10ml Max speed:15000rpm Max RCF:20803×g Tube size:Φ16×86mm</p>	 <p>Rotor:Fixed angle rotor Capacity:36x1.5/2.2ml Max speed:15000rpm Max RCF:21784×g Tube size:Φ11x42mm</p>
 <p>Rotor:Fixed angle rotor Capacity:6×50ml conical bottom Max speed:12500rpm Max RCF:17049×g Tube size:Φ29×116mm</p>	 <p>Rotor:Fixed angle rotor Capacity:6×50ml round bottom Max speed:12500rpm Max RCF:17049×g Tube size:Φ29×111mm</p>	 <p>Rotor:Fixed angle rotor Capacity:48×1.5/2.2ml Max speed:12500rpm Max RCF:17136×g Tube size:Φ11×42mm</p>
 <p>Rotor:Fixed angle rotor Capacity:4x100ml Max speed:11000rpm Max RCF:13365×g Tube size:Φ38x123mm</p>	 <p>Rotor:Fixed angle rotor Capacity:8x50ml conical bottom Max speed:11000rpm Max RCF:14041×g Tube size:Φ29x116mm</p>	 <p>Rotor:Fixed angle rotor Capacity:8x50ml round bottom Max speed:11000rpm Max RCF:13365×g Tube size:Φ29x111mm</p>
 <p>Rotor:Fixed angle rotor Capacity:12x15ml Max speed:11000rpm Max RCF:13365×g Tube size:Φ17x121mm</p>	 <p>Rotor:Fixed angle rotor Capacity:6×30ml Max speed:14000rpm Max RCF:18472×g Tube size:Φ25.5×100mm</p>	 <p>Rotor:Fixed angle rotor Capacity:6×10ml Max speed:16000rpm Max RCF:19004×g Tube size:Φ16×86mm</p>
 <p>Rotor:Fixed angle rotor Capacity:8×15ml Max speed:14000rpm Max RCF:17333×g Tube size:Φ17×121mm</p>	 <p>Rotor:Microplate rotor Capacity:2x2×48 well plate Max speed:4000rpm Max RCF:1538×g max: 128×48x60mm</p>	 <p>Rotor:Fixed angle rotor Capacity:8x0.2ml PCR strip Max speed:13000rpm Max RCF:14643×g</p>
 <p>Rotor:Fixed angle rotor Capacity:6x100ml Max speed:9000rpm Max RCF:9771×g Tube size:Φ38x123mm</p>	 <p>Rotor:Fixed angle rotor Capacity:24x2ml (frozen storage tube) Max speed:15000rpm Max RCF:23419×g Tube size: Φ11.5x45mm</p>	



# REFRIGERATED | HIGH SPEED | MICRO

## DSL-1850



### Product Overview

DSL-1850 is a high speed refrigerated centrifuge runs up to 20000rpm. Although the centrifuge is compact ,it can runs up to 6x100ml. The centrifuge has good refrigeration system-imported compressor unit, PID dynamical temperature control. The centrifuge equipped with DARSUN RFID automatic rotor identification technology and imbalance detection by three axis gyroscope.



### Product Features



#### FEATURE

- > Compact design, light weight
- > Variable frequency motor, micro processor control
- > LCD touch screen for viewing and setting parameters
- > Motorized electronic self-priming lid lock
- > RCF can be set directly
- > User can reset parameters when rotor is spinning
- > User can store 20 centrifugation programs
- > 10 adjustable acceleration and deceleration rates

#### REFRIGERATION

- > -10°C to +40°C, 1°C increment
- > ±1°C high temperature accuracy
- > CFC-free refrigerant
- > Temperature sensor inside the chamber
- > Starts refrigeration when power on
- > Maintains refrigeration after spin
- > With Fast Temp button



Model	DSL-1850
Max speed	14000rpm
Max RCF	18800xg
Max capacity	12x5ml
Temperature range	-10°C to +40°C
Temperature accuracy	±1°C
Timer range	1s to 99h59m59s
Speed accuracy	±10rpm
Noise	≤56dB(A)
Power consumption	800w
Dimension	400x285x285mm
Net weight	19kg



**No.1**

Order No.:10102400020

Rotor:Fixed angle rotor  
Capacity:24x1.5/2.2ml  
Max speed:14000rpm  
Max RCF:18800xg  
Tube size:Φ11x42mm

**No.2**

Order No.:10100400024

Rotor:Fixed angle rotor  
Capacity:4x0.2ml PCR strip  
Max speed:14000rpm  
Max RCF:18800xg

**No.3**

Order No.:10101200050

Rotor:Fixed angle rotor  
Capacity:12x5ml  
Max speed:14000rpm  
Max RCF:15800xg  
Tube size:Φ14x54mm



# FLOOR STANDING LOW SPEED REFRIGERATED CENTRIFUGE MACHINE

## DS-6M



### Product Overview

DS-6M Floor standing low speed refrigerated centrifuge machine is super centrifuge with max capacity 6\*1000ml. It's ideal centrifuge for large capacity centrifugation. It can run 6 blood bags at a time.



### Product Features

#### USER-FRIENDLY FUNCTIONS

- >12 user-defined programs
- >40 rates acceleration and deceleration
- >up to 99h59m timer range
- >RCF can be set directly
- >LCD&LED screen show parameters simply and clearly
- >User can reset parameters when rotor is spinning
- >210x2-7ml blood tube swing out rotor with lid

#### REFRIGERATION

- >High quality compressor unit
- >-20°C to +40°C, 1°C increment
- >±1°C high temperature accuracy
- >CFC-free refrigerant
- >Temperature sensor inside the chamber
- >Starts refrigeration when power on
- >Maintains refrigeration after spin

#### ENSURE SAFETY

- >Microprocessor control
- >Motorized electronic door lock
- >Door cannot be opened when rotor is spinning
- >Gas hinges to prevent door falling
- >Port in the door for calibration and operation checking
- >Emergency door lock release
- >Various protections to ensure safe centrifugation
- >Balance detection: Electronic with alarm and cut off

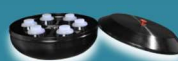
#### GOOD COMPONENTS

- >Motor: Brushless induction motor. stable running, maintenance free, long life
- >Housing: Thick and strong steel
- >Chamber: Medical grade 316 stainless steel. anticorrosion and easy to clean
- >Rotor: Aluminum alloy fixed angle rotor; Steel/Stainless steel swing-out rotor
- >Rotors are autoclavable

Model	DS-6M
Max speed	6000rpm
Max RCF	6880Xg
Max capacity	6*1000ml(4500rpm)
Temperature range	-20°C to +40°C
Temperature accuracy	±1°C
Speed accuracy	±10rpm
Net weight	255KG



Rotor: Fixed angle rotor  
Capacity: 6x500ml  
Max speed: 6000rpm  
Max RCF: 6880×g  
Tube size: Φ74x170mm



Rotor: Fixed angle rotor  
Capacity: 6x500ml  
Max speed: 6000rpm  
Max RCF: 6880×g  
Tube size: Φ74x170mm



Rotor: Swing out rotor  
Capacity: 6×blood bag  
Max speed: 4500rpm  
Max RCF: 5880×g



Rotor: Swing out rotor  
Capacity: 210×2-7ml blood tube  
Max speed: 4200rpm  
Max RCF: 5180×g  
Tube size: Φ13x75-100mm

# BENCHTOP PORTABLE MINI CENTRIFUGE

## DS-6K/7K/10K



### Product Overview

MINI portable centrifuge has three in one rotor: one rotor with three capacity 0.2ml, 0.5ml, 1.5/2ml. No need to change rotor, can centrifuge three capacities at the same. DS-6K/7K is also compatible with 6 pcr strips. We have three kinds of MINI centrifuges: DS-6K, DS-7K and DS-10K. DS-10K is high speed micro centrifuge.



### Product Features

- > Compact design, light weight
- > Adjustable run time, 1s-99m59s
- > 800rpm to highest rpm is adjustable
- > Automatically stop spinning when lid is open
- > BLDC motor drive, stable and low noise
- > Can stop spin in 3 seconds, saving experiment time
- > Wide range power input: 100v to 240v
- > Three-in-one rotor: 8x1.5/2ml+6x0.5ml+2x8x0.2ml  
no need to change rotor
- > Optional rotor for 6 PCR strips



Model	DS-6K/DS-7K/DS-10K
Max speed	6000/7500/10000rpm
Max RCF	2200/3450/6100Xg
Max capacity	8*1.5ml/2ml+6*0.5ml+2*8*0.2ml
Rotor	Three in one rotor; 6 PCR strip
Noise	≤52dB(A)/≤52dB(A)/≤57dB(A)
Power supply	AC 100-240V 50/60Hz
Dimension	200x170x130mm
Net weight	1.2kg

# BENCHTOP HIGH SPEED MICRO CENTRIFUGE

## DS15S



### Product Overview

DS15S micro high speed centrifuge comes with a 12\*1.5/2.2ml angle rotor(with 0.2/0.5ml adaptor). Its compact ,easy to use,high speed,low noise and fast lifting speed.



### Product Features

#### BLDC motor

Small Temperature Rise: Temperature rises  $\leq 6^{\circ}\text{C}$

**Low Noise:** Noise  $\leq 56\text{dB(A)}$

**Maintenance Free:** Brushless motor, maintenance free

**Rapid Acceleration:** adjustable speed rate. Speed up to max speed in highest rate just needs 10s

#### More convenient

Resistive Touch Screen

- Color LCD screen, parameter display in full digits
- Automatic conversion between RPM and RCF
- Resistive touch screen, the device can be operated normally even with gloves
- Can change parameters under running

**Intelligent Door Lock:** Steel door buckle + smart door lock, making centrifugal work more convenient;  
Automatic induction door lock, actively monitor the opening and closing state of the door, and automatically open the door after centrifugation, which is convenient for taking out samples.

**Damping Door Open:** The damping door design, after the centrifugal work is completed, the door automatically opens slowly, there is no vibration in the whole process.

**Bionic Suction Cup Base:** It adopts a bionic suction cup with strong adsorption, which is simple to fix and easy to move.

**Magnetic Rotor Lid:** The highly magnetic self-adsorbing rotor lid

**Safer**

#### Aluminium Alloy Inner Cover

The super-hard aluminum alloy inner cover makes the operation safer; at the same time, the internal air outlet can quickly dissipate heat.

#### 10mm Stainless Steel Shaft

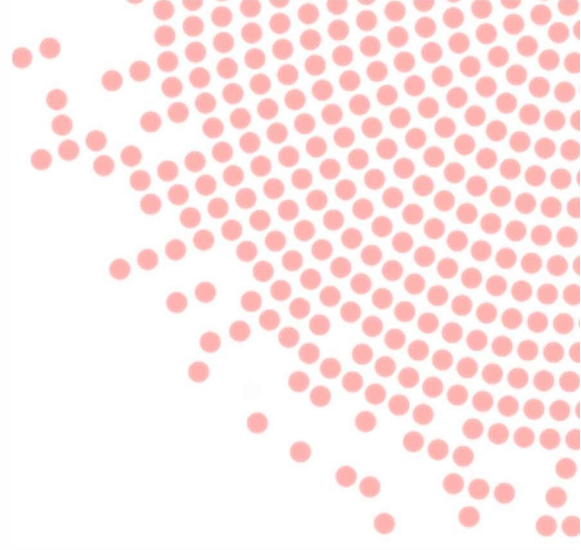
The connection between the door cover and the body is made of stainless steel shaft, and the door has been opened and closed for more than 100,000 times without damage in experiment, making it more secure to use.

#### Stainless Steel Rotor Lid

The special stainless steel rotor cover is equipped with a magnetic pick-and-place interface, which saves time and effort when picking and placing samples.

Model	DS15S
Max speed	15000rpm
Max RCF	15093xg
Standard capacity	12*1.5/2.2ml
Timer range	1s to 99m59s
Speed accuracy	$\pm 10\text{rpm}$
Noise	$\leq 56\text{dB(A)}$
Power Supply	100v-250v
Dimension	240x220x170mm
Net weight	3.8kg





# DARSUN

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