

Contents



Liquid Handling

- liquid handling Series / 03
- Mechanical Pipettes / 05
- Electronic Pipette / 11
- Pipette Fillers / 15
- Pipette Controllers & Pumps / 18
- Stepper / 19
- Electronic Titrator / 21
- Electronic Bottle-Top Dispenser / 22
- Bottle-Top Dispensers / 23
- Vacuum Aspiration System / 25



Thermal Control

- Thermal Control Series / 29
- Dry Bath / 31
- Thermo Mix / 36
- Laboratory Water Bath / 39
- Thermal Cyclers / 40
- GelSMART / 42



Stirring&Heating

- Magnetic Hotplate Stirrers Series / 45
- Overhead Stirrer Series / 48
- Magnetic Hotplate Stirrers / 49
- Hotplates / 60
- Magnetic Stirrers / 63
- Homogenizers / 68
- Overhead Stirrer / 70



Distilling

- Distilling Series / 74
- Rotary Evaporator / 75
- Vacuum Controller / 82



Centrifuges

- Centrifuge Series / 83
- Palm Micro Centrifuges / 85
- High Speed Micro-Centrifuges / 87
- Low-speed Centrifuges / 94
- Multi-Purpose Low-speed Centrifuges / 99



Mixing

- Mixer / 103
- Shaker / 104
- Vortex Mixers / 105
- Cell Disruptor / 109
- Microplate Mixers / 110
- Rotators / 112
- Rocking Rotators / 117
- Tube Rollers / 118
- Shakers / 119
- Spectrophotometers / 126

Products are manufactured in accordance with ISO9001 and ISO13485. All products comply with EU and North America standards, CE, cTÜVus, FCC marked and subjected to the strict QC control.

Instruments are tested and conform to the following safety and EMC standards:

EN 61010-1 UL 3101-1 CAN/CSA C22.2(1010-1)





EN 61010-2-10 EN 61326-1 EMC-guidelines: 89/336/EWG Instrument guidelines: 73/023/EWG



Liquid Handling

Liquid Handling range includes Micropipettes (Electronic Pipettes & Mechanical Pipettes), Pipette Filler, Pipette Controller and Stepper.

List of models:

Series	Image	Model	Application	Operation Method	Volume Range	Channel Option	Autoclavable	Page
Mechanical Pipette		HiPette	Aqueous solution	Mechanical	0.1-10000µL	Single channel	YES	p.5
		MicroPette	Aqueous solution	Mechanical	0.1-10000µL	Single Channel Adj. & Fixed;	YES (lower part)	p.8
					0.5-300µL	8 Channel Adj.; 12 Channel Adj.;		
		MicroPette Plus	Aqueous solution	Mechanical	0.1-5000µL	Single Channel Adj. & Fixed;	YES	p.7
					0.5-300µL	8 Channel Adj.; 12 Channel Adj.;		
		MiniPette	Aqueous solution	Mechanical	25-300µL	Single Channel Fixed	NO	p.18
Electronic Pipette		dPette+	Aqueous solution	Electronic	0.5-1000µL	Single Channel Adj.	YES (lower part)	p.11
					0.5-300µL	8 Channel Adj.		
		dPette	Aqueous solution	Electronic	0.5-1000µL	Single Channel Adj.	YES (lower part)	p.13
Pipette Filler		Levo Plus	Aqueous solution	Electronic	0.1-100mL	Single channel	YES (silicon adapter&nozzle)	p.15
		Levo Me	Aqueous solution	Electronic	0.1-100mL	Single channel	YES (silicon adapter&nozzle)	p.17
Pipette Controller		Levo	Aqueous solution	Mechanical	0.1-100mL	Single channel	YES (silicon adapter&nozzle)	p.18
Pipette Pump		Levo E	Aqueous solution	Mechanical	2-25mL	Single channel	NO	p.18
Stepper		StepMate	Aqueous solution, high viscosity or volatile solution	Mechanical	0.5-50mL	Single channel	NO	p.19

In addition to Pipettes, Liquid Handling series also include various Dispensers, Electronic Burette and Vacuum Aspiration System, which are used for the pipetting, dispensing, and collection of reagents with a wider range.

List of models:



Product Name	Bottle-Top Dispenser	New Bottle-Top Dispenser	Electronic Bottle-Top Dispenser	Electronic Burette	Vacuum Aspiration System	Economical Vacuum Aspirator
Model	DispensMate	DispensMate-Pro	dFlow	dTrite	SafeVac	EcoVac
Application	Reagent pipetting and liquid dispensing			Used in titration operations in chemical analysis, food industry, environmental analysis	Liquid collection and storage treatment, including cell culture medium, suspension, supernatant.	
Operation	Manual	Manual	Electronic	Electronic	Electronic	Electronic
Volume Range	0,5-5mL 1,0-10mL 2,5-25mL 5,0-50mL	0,5-5mL 1,0-10mL 2,5-25mL 5,0-50mL 10-100mL	0,1-99,9mL	0,01-99,99mL	Vacuum range: 0-600mbar Bottle volume:4L	Vacuum range: 0-500mbar Bottle volume:2L
Reagent Recovery Function	NO	Yes	Yes	Yes	NO	NO
Features	-	-Pro Glass piston (Part volume)	-	-	Sensitive level sensor, Self-closing connector	1L bottle optional, Switch manual and continuous aspiration
Fully autoclavable	The part where the liquid flows	Whole	-	-	The part where the liquid flows	The part where the liquid flows
Accessories	Screw adapter	Screw adapter	Spiral dispensing pipe	Spiral dispensing pipe	Handle adapter	Handle adapter
Page	P.24	P.23	P.22	P.21	P.25	P.27

HiPette

Fully Autoclavable Mechanical Pipette

The new generation fully autoclavable mechanical pipette has the best ergonomic design and ultralight weight. It has been designed keeping in mind the human form and human factors to offer smooth and effortless ergonomic pipetting experience. It is UV sterilisable and resistant to strong chemical corrosion. In addition, the volume lock helps protect from volume changing accidentally, and achieve reliable pipetting of smallest volume of liquids.

NEW

Ultra-light ergonomic design

Light weight and light pipetting force with soft range adjustment and piston movement offers effortless & fatigue-less pipetting experience.



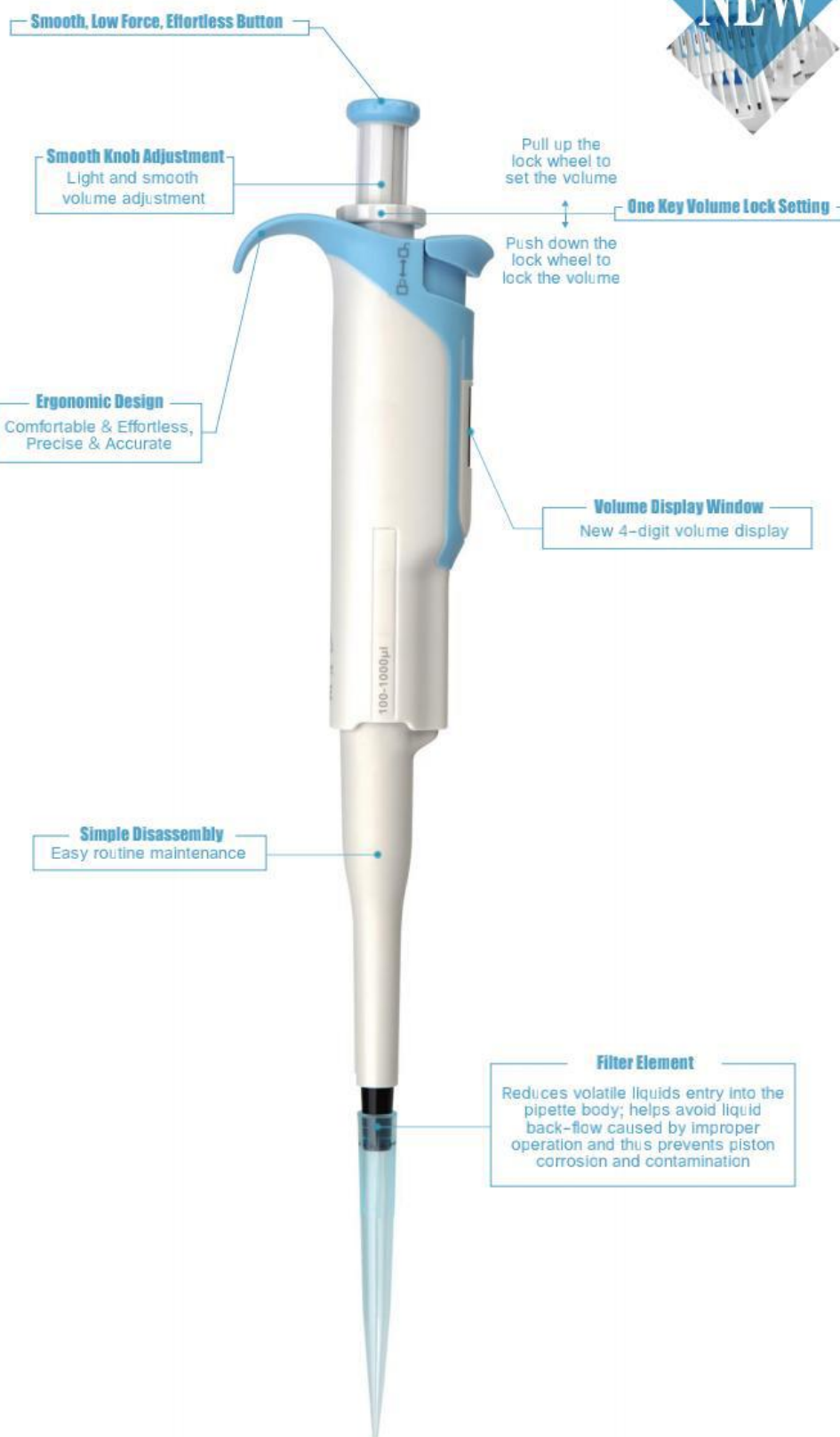
Accurate pipetting

Special material and the updated components & technologies effectively reduces the operating force for accuracy, precision and reliability.



Complete sterilization

The best in class pipette material used is fully autoclavable. It gives better protection against chemical & physical corrosion, and offers enhanced UV resistance for higher durability.



Specifications

SINGLE-CHANNEL ADJUSTABLE VOLUME PIPETTES
(9 MODELS, COVERING 0.1 μ L~10mL.)

Volume Range	Increment	Test Volume	Systematic Error		Random Error	
			μ L	%	μ L	%
0.1~2.5	0.002	2.5	± 0.04	± 1.4	± 0.02	± 0.7
		1.25	± 0.03	± 2.5	± 0.02	± 1.5
		0.25	± 0.03	± 12.0	± 0.02	± 6.0
0.5~10	0.01	10	± 0.10	± 1.0	± 0.04	± 0.4
		5	± 0.08	± 1.5	± 0.04	± 0.8
		1	± 0.03	± 2.5	± 0.02	± 1.8
2~20	0.02	20	± 0.20	± 1.0	± 0.06	± 0.3
		10	± 0.12	± 1.2	± 0.06	± 0.6
		2	± 0.10	± 5.0	± 0.03	± 1.5
5~50**	0.05	50	± 0.45	± 0.9	± 0.15	± 0.3
		25	± 0.35	± 1.4	± 0.2	± 0.8
		5	± 0.15	± 3.0	± 0.08	± 1.6
10~100	0.1	100	± 0.80	± 0.8	± 0.20	± 0.2
		50	± 0.50	± 1.0	± 0.15	± 0.3
		10	± 0.30	± 3.0	± 0.10	± 1.0
20~200	0.2	200	± 1.20	± 0.6	± 0.40	± 0.2
		100	± 1.00	± 1.0	± 0.30	± 0.3
		20	± 0.50	± 2.5	± 0.14	± 0.7
30~300	0.2	300	± 1.80	± 0.6	± 0.60	± 0.2
		150	± 1.50	± 1.0	± 0.45	± 0.3
		30	± 0.75	± 2.5	± 0.21	± 0.7
100~1000	1	1000	± 6.00	± 0.6	± 2.00	± 0.2
		500	± 5.00	± 1	± 1.00	± 0.2
		100	± 3.00	± 3	± 0.60	± 0.6
1000~5000**	5	5000	± 30.00	± 0.6	± 10.00	± 0.2
		2500	± 15.00	± 0.6	± 7.50	± 0.3
		1000	± 12.00	± 1.2	± 3.00	± 0.3
2000~10000**	10	10000	± 60.00	± 0.6	± 20.00	± 0.2
		5000	± 40.00	± 0.8	± 10.00	± 0.2
		2000	± 30.00	± 1.5	± 6.00	± 0.3

** Coming soon

User calibration should refer to the industrial standard ISO8655-2.

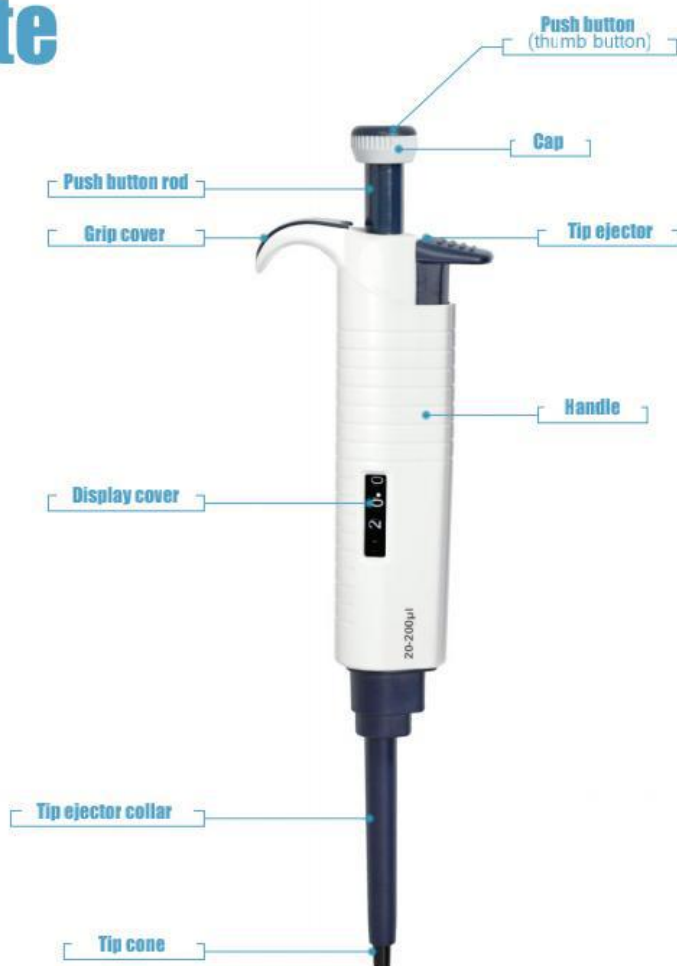
MicroPette Plus

121°C
FULLY
Autoclavable



MicroPette

121°C
Half
Autoclavable



Features

- Available as Fixed Volume and Adjustable Volume formats
- Streamlined shape design
- Comprehensive volume range from 0.1µL to 10mL
- Easy calibration and maintenance
- 8 and 12 channel pipette options
- Dispensing head rotates for effortless pipetting convenience
- Individual piston and tip cone assembly
- Spring loaded tip cones for easy cleaning and maintenance
- Compound material-made tip cone secures high sealing performance



Mechanical Pipette Volume Selection

Specifications

This volume list is for MicroPette and MicroPette plus (Adjustable and Fixed volume)

Single-channel Adjustable Volume Pipettes						
Volume Range	Increment	Test Volume	Error limits in accordance with ISO8655-2			
			Systematic Error		Random Error	
μL	μL	μL	μL	%	μL	%
0.1–2.5	0.05	2.5	± 0.0625	± 2.50	± 0.05	± 2.00
		1.25	± 0.0375	± 3.00	± 0.0375	± 3.00
		0.25	± 0.03	± 12.00	± 0.015	± 6.00
0.5–10	0.1	10	± 0.1	± 1.00	± 0.08	± 0.80
		5	± 0.075	± 1.50	± 0.075	± 1.50
		1	± 0.025	± 2.50	± 0.015	± 1.50
2–20	0.5	20	± 0.18	± 0.09	± 0.08	± 0.04
		10	± 0.12	± 1.20	± 0.1	± 1.00
		2	± 0.06	± 3.00	± 0.04	± 2.00
5–50	0.5	50	± 0.3	± 0.60	± 0.15	± 0.30
		25	± 0.225	± 0.90	± 0.15	± 0.60
		5	± 0.1	± 2.00	± 0.1	± 2.00
10–100	1	100	± 0.8	± 0.80	± 0.15	± 0.15
		50	± 0.5	± 1.00	± 0.2	± 0.40
		10	± 0.3	± 3.00	± 0.15	± 1.50
20–200	1	200	± 1.2	± 0.60	± 0.3	± 0.15
		100	± 0.8	± 0.80	± 0.3	± 0.30
		20	± 0.6	± 3.00	± 0.2	± 1.00
50–200	1	200	± 1.2	± 0.60	± 0.3	± 0.15
		100	± 0.8	± 0.80	± 0.3	± 0.30
		50	± 0.5	± 1.00	± 0.2	± 0.40
100–1000	5	1000	± 6	± 0.60	± 2	± 0.20
		500	± 3.5	± 0.70	± 1.25	± 0.25
		100	± 2	± 2.00	± 0.7	± 0.70
200–1000	5	1000	± 6	± 0.60	± 2	± 0.20
		500	± 3.5	± 0.70	± 1.25	± 0.25
		200	± 1.8	± 0.90	± 0.6	± 0.30
1000–5000	50	5000	± 25	± 0.50	± 7.5	± 0.15
		2500	± 15	± 0.60	± 7.5	± 0.30
		1000	± 7	± 0.70	± 3	± 0.30
2000–10000	100	10000	± 60	± 0.60	± 20	± 0.20
		5000	± 60	± 1.20	± 15	± 0.30
		2000	± 60	± 3.00	± 12	± 0.60

User calibration should refer to the industrial standard ISO8655-2.

Fixed Volume Pipettes

Volume Range	Increment	Test Volume	Systematic Error		Random Error	
μL	–	μL	μL	%	μL	%
5	–	5	± 0.065	± 1.3	± 0.06	± 1.2
10	–	10	± 0.08	± 0.8	± 0.08	± 0.8
20	–	20	± 0.12	± 0.6	± 0.1	± 0.5
25	–	25	± 0.125	± 0.5	± 0.075	± 0.3
50	–	50	± 0.25	± 0.5	± 0.15	± 0.3
100	–	100	± 0.5	± 0.5	± 0.3	± 0.3
200	–	200	± 0.8	± 0.4	± 0.4	± 0.2
250	–	250	± 1.0	± 0.4	± 0.5	± 0.2
500	–	500	± 1.5	± 0.3	± 1.0	± 0.2
1000	–	1000	± 3.0	± 0.3	± 2.0	± 0.2
2000	–	2000	± 6.0	± 0.3	± 3.0	± 0.15
5000	–	5000	± 15	± 0.3	± 7.5	± 0.15

8-channel Adjustable Volume Pipettes

Volume Range	Increment	Test Volume	Systematic Error		Random Error	
μL	μL	μL	μL	%	μL	%
0.5–10	0.1	10	± 0.15	± 1.50	± 0.15	± 1.50
		5	± 0.125	± 2.50	± 0.125	± 2.50
		1	± 0.04	± 4.00	± 0.04	± 4.00
5–50	0.5	50	± 0.5	± 1.00	± 0.25	± 0.50
		25	± 0.375	± 1.50	± 0.25	± 1.00
		5	± 0.15	± 3.00	± 0.1	± 2.00
50–300	5	300	± 2.1	± 0.70	± 0.75	± 0.25
		150	± 1.5	± 1.00	± 0.75	± 0.50
		50	± 0.75	± 1.50	± 0.4	± 0.80

12-channel Adjustable Volume Pipettes

Volume Range	Increment	Test Volume	Systematic Error		Random Error	
μL	μL	μL	μL	%	μL	%
0.5–10	0.1	10	± 0.15	± 1.50	± 0.15	± 1.50
		5	± 0.125	± 2.50	± 0.125	± 2.50
		1	± 0.04	± 4.00	± 0.04	± 4.00
5–50	0.5	50	± 0.5	± 1.00	± 0.25	± 0.50
		25	± 0.375	± 1.50	± 0.25	± 1.00
		5	± 0.15	± 3.00	± 0.1	± 2.00
50–300	5	300	± 2.1	± 0.70	± 0.75	± 0.25
		150	± 1.5	± 1.00	± 0.75	± 0.50
		50	± 0.75	± 1.50	± 0.4	± 0.80

Specifications are used as guidelines and the user calibration should refer to the industrial standard ISO 8655

dPette+

Multi-functional 8-channel Electronic Pipette

Multi-functional high performance 8-channel electronic pipette offers productive pipetting with its easy to understand operations. Its uniquely lightweight streamlined design ensures an effortless transfer of multiple samples with an increased throughput and data reproducibility.



• Easy Operation

Intuitive interface for setting functions and parameters.

• Ergonomic Design

Low operation forces for complete work, which is exceptionally fatigue-free.

• Convenient and Versatile

360° pipetting. Double knobs for simple and versatile control. Easy loading tip cones offers smooth and leak free operation.

• Dual charging modes

Use of USB charger or the charging stand to ensure uninterrupted use.

Three easy steps to operate dPette+

1

Long press the Parameter Knob for 2 seconds to Start

2

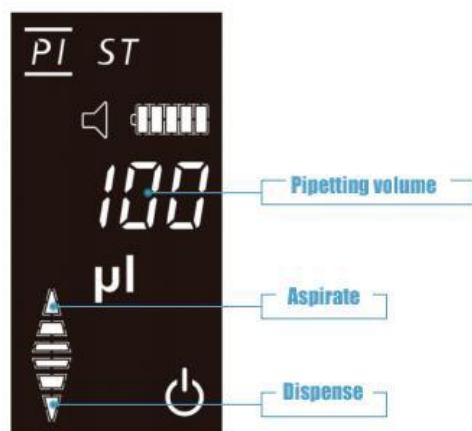
Rotate the knob back and forth quickly to Switch Pipetting, Continuous Dispensing, and other Function Settings

3

Quickly turn the Parameter Knob to unlock it, turn it to adjust the parameter such as volume, press it to pipette, long press it to mix

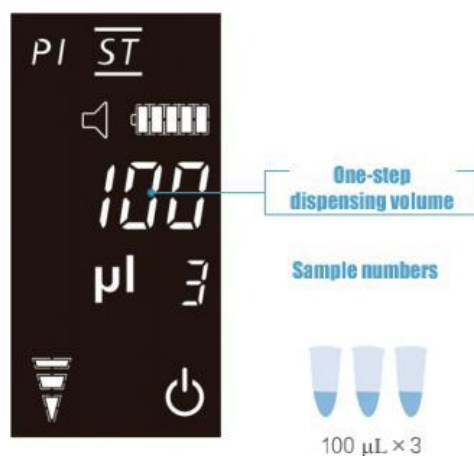
Pipetting function

Parameter Knob press → Pipetting,
Long press → Mixing



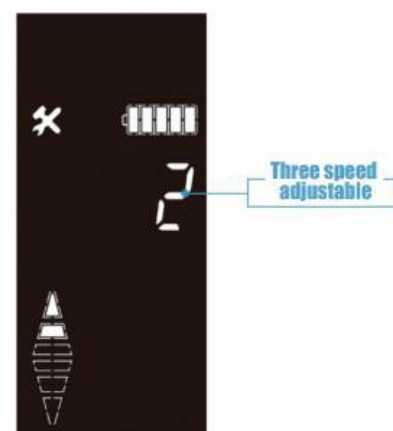
Stepper function

Maximum steps = Pipette nominal volume /
One step dispensing volume



Other function

Pipetting speed adjustment
Key tone ON/OFF



Supports dual charging mode

USB Charging



Contact Charging



Complimentary Pipette Holder

Support automatic Calibration

Connect it to the computer, with the free software
provided for calibration

Specifications

Channels	Volume Range	Increment	Test Volume	Systematic Error		Random Error	
	μL	μL	μL	μL	%	μL	%
8	0.5-10	0.01	10	± 0.20	± 2.00	± 0.1	± 1.0
			1	± 0.08	± 8.0	± 0.05	± 5.00
8	10-100	0.1	100	± 0.80	± 0.80	± 0.3	± 0.30
			10	± 0.3	± 3.00	± 0.2	± 2.00
8	30-300	1	300	± 1.80	± 0.60	± 0.9	± 0.3
			30	± 0.90	± 3.00	± 0.3	± 1.0

* Specifications are used as guidelines and the user calibration should refer to the industrial standard ISO 8655.

dPette is an innovative Electronic Pipette developed by . It combines manual pipette features, as ergonomics and lightweight, with electronic pipette features, such as labor-saving and high accuracy, offering new pipetting experience to users.

Parameter Knob

Function Wheel

Display

ELECTRONIC PIPETTE

Pipette Tip cone

Stepper Mode

Diluting Mode

Pipetting Mode

Buzzer & Settings

Battery Indicator

Volume Range
Parameter

Unit

Indicator

Power



dPette+

Multi functional Electronic Pipette

dPette

Simple Electronic Pipette

Features

- Motor driven digitally control pipette with multifunctions
- Easy Operations and Handling
- Intuitive menu interface settings: functions and operations
- Minimal force for pipetting operation
- High performance ensuring accuracy & repeatability
- 2 buttons for all operational settings
- Adjustable speed for aspiration and dispensing
- Li-ion battery enable longer operation time
- Convenient and Versatile
- Self-calibration applicable



dPette+
For Pipetting,
Mixing, Stepper
and Dilution



dPette
For Pipetting
and Mixing

Specifications

Channels	Volume Range	Increment	Test Volume	Systematic Error		Random Error	
	µL	µL	µL	µL	%	µL	%
1	0.5–10	0.01	10	±0.10	±1.00	±0.05	±0.50
			1	±0.035	±3.50	±0.03	±3.00
1	5–50	0.1	50	±0.40	±0.80	±0.15	±0.30
			5	±0.15	±3.00	±0.125	±2.50
1	30–300	1	300	±1.80	±0.60	±0.60	±0.20
			30	±0.09	±3.00	±0.21	±0.70
1	100–1000	5	1000	±6.00	±0.60	±2.00	±0.20
			100	±3.00	±3.00	±0.60	±0.60

Specifications are used as guidelines and the user calibration should refer to the industrial standard ISO 8655

Levo Plus

Pipette Filler

Ergonomic fast pipetting solution with accurate speed control



Features

- Intuitive and convenient speed with 6 levels
- Lightweight pipette filler compatible with glass or plastic serological pipettes (0.1 – 100 mL)
- Ergonomic design for fatigue-free and effective streamlined pipetting
- LCD screen displays battery status and pipetting speed
- Quiet and powerful motor and pump fills 25 mL pipette in less than 5 seconds
- Long-lasting lithium-ion battery



Specifications

Aspiration Speed	25mL<5s (6 Level)
Dispensing Speed	Motor/Gravity
Battery	Lithium-ion
Battery Service Life	More than 8 Hours of Intermittence Use
Charging Time	2-3 Hours
Pipette Types	Glass or Plastic Pipette (0.1-100mL), Pasteur Pipettes
Filter	0.45µm Hydrophobic
Weight	200g

Levo ME

Pipette Filler

Elegant design & reliable performance,
with long-life battery

Features

- Enables single-handed operation with minimum effort
- Speed adjustment simply with finger tips
- Individually set aspiration (upper button) and dispensing (lower button) speeds
- Compatible with glass or plastic serological pipettes (0.1–100mL)
- 0.45µm replaceable hydrophobic filter
- High capacity Li-ion battery enables long operation time

Specifications

Aspiration Speed	25mL<7s
Dispensing Speed	Motor/Gravity
Battery	Lithium-ion
Battery Service Life	More than 8 Hours of Intermittence Use
Charging Time	2–3 Hours
Pipette Types	Glass or Plastic Pipette (0.1–100mL), Pasteur Pipettes
Filter	0.45µm Hydrophobic
Weight	200g



Levo Pipette Controller

Features

- Reduce hands-on time
- Compatible with glass or plastic serological pipettes (0.1 – 100mL)
- 3µm replaceable hydrophobic filter
- Easy to clean and maintain



Mini Pipette Features

- Ergonomic design provides excellent operation experience;
- Smart body size ideal to be packed into IVD assay kits;
- Compatible with universal 200µL tips;

Volumes 200µL 100µL 75µL 50µL 30µL 25µL OEM

Levo E Pipette Pump

Designed for single-handed operation, Pipette Pump identifies itself with a thumbwheel, allowing precise aspiration or dispensing. The feature of side lever enables complete liquid dispensing, without a droplet remaining.

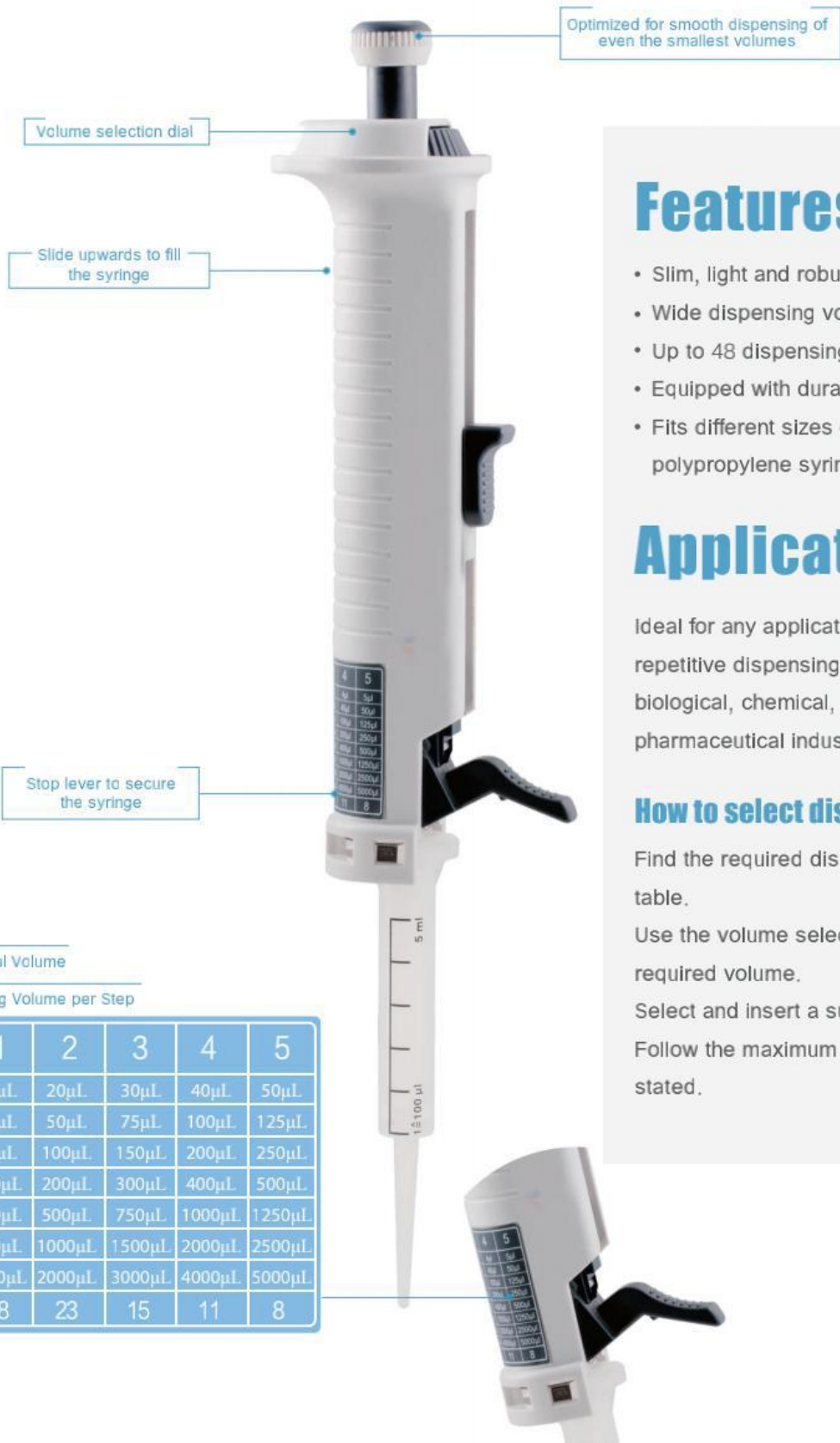


Features

- Volume capacity 2mL, 10mL and 25mL
- Colour-coded by volume with green, blue and red
- Thumb wheel guarantees precise operation
- Resistant to acids and alkalis
- Easy for cleaning and maintenance

StepMate Stepper

Positive-displacement, continuously adjustable, repetitive dispenser



Features

- Slim, light and robust
- Wide dispensing volume from 10µL to 5mL
- Up to 48 dispensing steps in succession
- Equipped with durable syringe stop lever
- Fits different sizes of disposable polypropylene syringes from 0.5mL to 50mL

Applications

Ideal for any application requiring repetitive dispensing in the clinical, biological, chemical, food and beverage, pharmaceutical industry.

How to select dispensing volume

Find the required dispensing volume in the table.

Use the volume selection dial to set the required volume.

Select and insert a suitable syringe.

Follow the maximum dispensing steps as stated.

Precision Dispenser Tip

Syringes are convenient for viscous or foaming solutions, volatile liquids and applications where repetitive dispensing of volumes in long series is required

The syringes are made from high quality materials without soft lubricants or other additives.

Specifications

Note: The first and last dispensing liquid should be discarded for precision.



Dial setting		1	2	3	4	5			
Number of steps		48	23	15	11	8			
Cat. No.	Syringe volume	Dispensing volume per step					Systematic Error	Random Error	Description
	mL	µL					%	%	
17900032	0.50	10	20	30	40	50	± 0.8	≤ 0.7	0.5mL, piston PE-HD, cylinder PP, 1 packing, 5 pcs/packing
17900033	1.25	25	50	75	100	125	± 0.8	≤ 0.5	1.25mL, piston PE-HD, cylinder PP, 1 packing, 5 pcs/packing
17900034	2.50	50	100	150	200	250	± 0.8	≤ 0.4	2.5mL, piston PE-HD, cylinder PP, 1 packing, 5 pcs/packing
17900035	5.00	100	200	300	400	500	± 0.4	≤ 0.3	5mL, piston PE-HD, cylinder PP, 1 packing, 5 pcs/packing
17900036	12.50	250	500	750	1000	1250	± 0.3	≤ 0.3	12.5mL, piston PE-HD, cylinder PP, 1 packing, 5 pcs/packing
17900037	25.00	500	1000	1500	2000	2500	± 0.2	≤ 0.3	25mL, piston PE-HD, cylinder PP, 1 packing, 2pcs/packing with 1 pc adapter
17900038	50.00	1000	2000	3000	4000	5000	± 0.2	≤ 0.2	50mL, piston PE-HD, cylinder PP, 1 packing, 2pcs/packing with 1 pc adapter

dTrite

Electronic Burette

Digital Burette – dTrite provides accurate, precise and convenient bottle-top titration with optimum operator safety. It combines both magnetic stirrer and Burette functions, making it easier for the user to achieve reproducible results in the field of analytical chemistry, food industry, water analysis etc.

Features

- High quality motor with excellent precision and accuracy
- Electronic control provides fatigue-free operation
- Remote control panel prevents manual disturbance during operation
- Built-in magnetic stirrer for a complete and easy operation
- Large LCD display parameters



Specifications

Volume Range	0.01mL–99.99mL, Max piston lift is 10mL, resolution is 10μL
Volume Accuracy	R=0.2% CV=0.07%
Speed	16 Levels
Operating Temperature Range	10℃–30℃
Quality Control	DIN EN ISO 8655
Control Type	External control, including the stirrer and the burette program

* Notice: R: Relative error; CV: coefficient of variation.

dFlow

Electronic Bottle-Top Dispenser

Error-free, easy to use, motorized solution

Features

- Motor controlled digital, fatigue free operation
- High quality stepper motor provides smooth and accurate dispensing
- Adjustable aspiration and dispensing speed
- Reagent recovery feature minimizes waste
- TFT display module for simple volume selection and control
- Two operation modes: continuous dispenser or stepper

Applications

Ideal for safe, accurate and precise dispensing of bases, saline solutions, acids and some organic solvents.



Specifications

Volume Range	0.1–99.9mL, Max piston lift is 10mL, resolution is 100μL
Volume Accuracy	Dispenser: R = 0.3%; CV = 0.1% Stepper: R = 0.6%; CV = 0.9%
Operating Temperature Range	10°C–30°C
Quality Control	DIN EN ISO 8655
Control Type	External control

* Notice: R: Relative error; CV: coefficient of variation.



DispensMate-Pro

Premium Bottle-Top Dispenser

Designed for safe, sturdy & stable dispensing directly from the bottle in the range of volumes up to 100 mL

- ❶ Fast, precise, and reproducible volume locking mechanism on a clear scale
- ❷ Reagent recovery function reduces reagent waste and prevents dripping when not in use
- ❸ 6 adapters to comfortably fit most laboratory reagent bottles
- ❹ Adjustable aspirating tube for different bottle heights

Features

- High chemical compatibility with use of inert materials and PTFE piston
- Easy to disassemble and clean for periodic maintenance
- Fully autoclavable at 121°C to ensure sterility
- Available in 5 dispensing volume ranges from 0.5mL to 100mL
- Supplied with most popular adapters (S40, GL32, GL38, GL25, GL28)

Specifications

Cat. No.	Volume Range	Graduation	Systematic Error		Random Error	
	mL	mL	μL	%	μL	%
7032212001	0.5–5	0.1	± 25	± 0.5	± 10	± 0.2
7032212002	1.0–10	0.2	± 50	± 0.5	± 20	± 0.2
7032212003	2.5–25	0.5	± 125	± 0.5	± 50	± 0.2
7032111004	5.0–50	1.0	± 250	± 0.5	± 100	± 0.2
7032111005	10–100	2.0	± 500	± 0.5	± 200	± 0.2

Cat. No.	17000817	17400132	17400133	17400134	17400135	17400037	17900158	17000802	17100735	17900236	17900237
Accessories	GL32, Adapter, 45/32mm	GL38, Adapter, 45/38mm	GL25, Adapter, 32/25mm	GL28, Adapter, 32/28mm	S40, Adapter, 45/40mm	Reagent Bottle (Brown, 1L)	Filling tube combination	Discharge tube (m) (adapter 25mL, 50mL, 100mL)	Discharge tube (m) (adapter 5mL, 10mL)	Discharge tube combination (adapter 25mL, 50mL, 100mL)	Discharge tube combination (adapter 5mL, 10mL)



DispensMate

Bottle-Top Dispenser

For safer and more efficient way to handle chemicals

Features

- Excellent chemical resistance, Inert and high strength components made of PTFE, FEP, BSG, PP
- Fully autoclavable at 121°C (only liquid accessible parts)
- Available in 4 dispensing volume ranges from 0.5mL to 50mL
- Easy to disassemble and clean for periodic maintenance
- Supplied with most popular adapters (S40, GL32, GL38, GL25, GL28)

Applications

Bottle-top dispensers offer high precision and accuracy with ISO 8655 conformed calibration for use in areas such as pharmacology, biotechnology, healthcare, food and beverage, chemistry, environmental monitoring and academy&research.

- 1 Easy-to-use volume adjustment
- 2 Smooth piston design provides effortless dispensing experience
- 3 Easy-to-use closure cap protects user from exposure to reagent
- 4 Adapters to comfortably fit most laboratory reagent bottles
- 5 Adjustable aspirating tube for different bottle heights

Specifications

Cat. No.	Volume Range	Graduation	Systematic Error		Random Error	
	mL	mL	μL	%	μL	%
7032100101	0.5-5	0.1	± 25	± 0.5	± 10	± 0.2
7032100102	1.0-10	0.2	± 50	± 0.5	± 20	± 0.2
7032100103	2.5-25	0.5	± 125	± 0.5	± 50	± 0.2
7032100104	5.0-50	1.0	± 250	± 0.5	± 100	± 0.2



Cat. No.	17400131	17400132	17400133	17400134	17400135	17400037	17400021	17100073	17100553	17100696	17100767
Accessories	GL32, Adapter, 45/32mm	GL38, Adapter, 45/38mm	GL25, Adapter, 32/25mm	GL28, Adapter, 32/28mm	S40, Adapter, 45/40mm	Reagent Bottle (Brown, 1L)	Filling tube (m)	Discharge tube (m)	GL45, adapter, 45mm	Discharge tube combination (adapter 25mL, 50mL)	Discharge tube combination (adapter 5mL, 10mL)

SafeVac

Vacuum-Controlled Aspiration System

Safe and efficient system for labs handling critical or biological liquid waste.

Features

- Compact, user-friendly design
- Level detection system prevents bottle overflow
- Control knob for vacuum setting
- The parts in contact with liquids are autoclavable
- Easy to disassemble and clean
- Ideal tool to avoid lab air contamination and protect personnel safety
- Adjustable vacuum level with indicator light is designed for various applications

Applications

For laboratory waste recovery and separation of liquid and solid. It can be widely used in cell culture, DNA extraction, microplate waste removal, and any other liquid separation or recovery. Best replacement for the common vacuum pump, for all kinds of waste liquid recovery, especially biological, chemical and radioactive liquids.



Specifications

Wide range of adapters to fit well with different tubes, microplate and disk plate, all of which can be fully autoclaved (At 121°C 1 bar for 20 minutes. After autoclaving the equipment must be cooled down before use).

Vacuum range	0–600mbar
Aspirating speed	15L/min (air)
Flow rate [liquid]	17mL/s
Bottle	4L
Autoclave component	Tube;waste bottle;operation handle;
Noise level	≤55dB
Input voltage	100–240VAC, 50/60Hz
Dimension[WxDxH]	180x240x450mm
Weight	3kg

A	8-channel tip detrusion adapter 200μL tip
B	8 channel needle Ø1.5mm
C	Single needle Ø2.5mm, 40mm
D	Single needle Ø2.5mm, 120mm
E	Single needle Ø1.5mm, 40mm
F	Single needle Ø1.5mm, 120mm
G	tip detrusion adapter 200μL tip
H	tip detrusion adapter 1mL tip
I	SafeVac Handle bracket



EcoVac

Economical Vacuum Aspirator

Small, compact and easy to use system for the convenient handling of liquid waste disposal.

Easy to switch between manual aspiration and two-level adjustable continuous aspiration:
Level 1: Standard continuous aspiration mode,
Level 2: Fast continuous aspiration mode enhanced

Features

- Small and compact to fit in the cabinet, on the benchtop or even beneath the bench
- Easy to switch between manual aspiration and continuous aspiration mode, reducing RSI (Repetitive Strain Injury) and improving efficiency
- Collection bottle outlet with hydrophobic filter prevents aerosol and liquid contamination
- Brushless motor offers low noise and long life
- Different adapters are available to fit a multitude of laboratory supplies
- The parts in contact with liquids can be autoclaved
- Adjustable vacuum level with indicator light is designed for various applications

Specifications

Vacuum range	0–500mbar
Aspirating speed	15L/min(air)
Flow rate [liquid]	17mL/s
Bottle	2L standard, 1L optional with adaptor
Motor type	Brushless Motor
Input voltage	100–220VAC, 50/60Hz
Dimension [W×D×H]	180 × 240 × 340 mm
Weight	2.8kg



Hanging handles
on both sides

Vacuum level indicator light

Wide range of applications

EcoVac is suitable for any application where the single liquid suction volume is less than 2L. The applicability includes use of various common consumables, which can be widely used in the collection and removal of liquids in experiments of microorganisms, molecules, proteins, cells, etc., and other applications such as RNA/DNA extraction, Western blots and ELISA.

- Aspiration of supernatants after centrifugation
- Aspiration of eluent
- Removal of supernatants during nucleic acid extraction
- Removal of culture media
- Removal of wash solutions from immuno-assay well-plate
- Removal of buffers of Western blot strips
- Removal of excess liquid from slides and Petri dishes



A	8-channel tip detrusion adapter 200 μ L tip
B	8 channel needle \varnothing 1.5mm
C	Single needle \varnothing 2.5mm, 40mm
D	Single needle \varnothing 2.5mm, 120mm
E	Single needle \varnothing 1.5mm, 40mm
F	Single needle \varnothing 1.5mm, 120mm
G	tip detrusion adapter 200 μ L tip
H	tip detrusion adapter 1mL tip
I	1L bottle adapter
J	1L bottle





Thermal Control

Digital Dry Bath

The microprocessor controlled Digital Dry Baths offer control over both temperature and time, eliminating the need for an external thermometer or timer.

Used to thaw, boil, incubate and warm samples for different applications in molecular biology, assay preparation, tissue/cell culture, biochemistry, genetics, histology, clinical, environmental and industrial laboratories.

Dry bath provides precise temperature for various experiments. Thermo mix also has mixing function, and widely used in various fields such as molecular biology and cell biology, including gene synthesis, gene purification, gene cloning, gene expression, protein expression analysis, enzyme reaction, bacterial growth and so on.

List of models:

Model	Image	Function	Temp. Setting Range	Mixing speed	Blocks	Page
HB60-S		Heating	25°C, 30°C, 37°C, 45°C, 60°C	-	5mL × 30 + 15mL × 8	p.32
HB120-S		Heating	25°C-120°C	-	0.2mL × 54 0.5mL × 40 1.5/2mL × 40 5/15mL × 28 5mL blood collection tube × 45 50mL × 8 (0.2mL + 0.5mL + 1.5/2mL) × 18 0.2mL × 96 Microplate Bead/water bath	p.32
HB105-S1/ S2		Heating	25°C-105°C	-	0.2mL × 30 0.5mL × 20 1.5mL × 20 2mL × 20 15mL × 12 50mL × 4 Bead/water bath	p.32
HB150-S1/ S2		Heating	25°C-150°C	-		p.32
H100-Pro		Heating	25°C-100°C	-	0.5mL × 24 1.5mL × 24 2mL × 24 5mL × 5 15mL × 8 50mL × 4 0.2mL × 96 Microplate	p.33
HC110-Pro		Heating&Cooling	-5°C-110°C	-		p.37
HCM100-Pro		Heating&Cooling&Mixing	0°C-100°C	200-1500rpm		p.36
HM100-Pro		Heating&mixing	15°C-100°C	200-1500rpm		p.36
Mini H100		Heating	25°C-100°C	-	0.2mL × 40 0.5mL × 24 1.5mL × 15 2mL × 15 5mL × 6 15mL × 4 50mL × 2	p.35
Mini HC100		Heating&Cooling	0°C-100°C	-		p.35
Mini HCL100		Heating&Cooling	0°C-100°C	-		p.35
DWB20-S		Heating	25°C-80°C	-	20L	p.39

Dry Bath Series

Small footprint. Rapid & accurate temperature control. Overheating protection.
Accommodates various types of tube holders to meet every lab need.

HB105-S1 / HB105-S2 / HB150-S1 / HB150-S2 / HB120-S / HB60-S / H100-Pro /



HB105-S1



HB105-S2



HB150-S1



HB150-S2



HB120-S



HB60-S



MiniHCL100



H100-Pro

Features

- Accurate and uniform temperature control
- Digital control and display of time and temperature
- Wide range of temperature control for different applications
- Monitor temperature in real-time, and set timer
- Wide range of heating blocks compatible with most popular lab tubes
- Overheating protection ensures sample and user safety
- Equipped with a lid for heat preservation, and preventing pollution
- User-friendly setting knob for easy and simple operation

HB105-S1 HB105-S2 HB150-S1 HB150-S2

Durable, reliable safe and convenient to use

Features

- Single and double heat block modules available
- Highest temperature up to 150 °C
- Buzzer alert when the time is up
- External temperature sensor PT1000



HB120-S / HB60-S

Easy to use, safe and durable

Features

- Low profile – space saving design
- Timer function support available
- Discrete heating temperature levels: 25 °C, 30 °C, 37 °C, 45 °C, 60 °C (HB60-S)
- 5/10mL × 38 dual purpose heating block (HB60-S)



H100-Pro

Digitally accurate with exceptional temperature uniformity

Features

- Customizable user setting program with up to 6 sequential steps
- Temperature calibration function inbuilt for users
- Magnetic heat block mounting eliminating need of any tools
- Interchangeable sample blocks designed to provide versatility, easy cleaning and disinfecting
- Accurate temperature control of each heating block with lid to minimize the heat loss

Applications

Suitable for clinical laboratories, for sample preparation, Enzyme-substrate reactions, biochemistry tests, serum coagulation tests and many other.



Specifications	H100-Pro	HB105-S1 HB105-S2	HB150-S1 HB150-S2	HB120-S	HB60-S
Temperature range[°C]	Room temp+5-100	Room temp+5-105	Room temp+5-150	Room temp+5-120	Room temp+5-60
Temperature Setting range [°C]	15-100	25-105	25-150	25-120	5 gears:25, 30, 37,45,60
Temperature control accuracy[°C]	±0.5	25-90: ±0.3 90-105: ±0.6	25-90: ±0.3 90-105: ±0.6	±0.5	±0.5
Temperature uniformity@ 37°C[°C]	±0.5	±0.2	±0.2	±0.5	±0.3
Power [W]	200	HB105-S1:100 HB105-S2:200	HB150-S1:100 HB150-S2:200	160	160
Time setting range	0min~99h30min	0min~99h59min	0min~99h59min	0min~99h30min	0min~99h30min
External sensor	-	Yes	Yes	-	-
Display	TFT	LED	LED	LED	LED
Voltage,Frequency	110/220V,50/60HZ	110/220V,50/60HZ	110/220V,50/60HZ	110/220V,50/60HZ	110/220V,50/60HZ
External Dimension[WxDxH]	200x235X120	290x210X120	290x210X120	175X290X85	175X290X85
Weight (kg)	7.3	3.2	3.2	3	2.5
Operating temperature[°C]	10-40	10-40	10-40	10-40	10-40
Operating humidity[% RH]	<80	<80	<80	<80	<80

Mini Dry Bath

Mini HCL100 / Mini HC100 / Mini H100

Portable and option to power by automobile power adapter

Features

- Mini, lightweight, safe with LCD display
- Digital control over both temperature and time
- Built-in user recalibration function guarantees long term temperature accuracy
- Overheating protection
- Optional cooling function
- Interchangeable blocks for a wide variety of test tube sizes
- Mini HCL100 with hot lid to prevent water condensing on the tube cap



Applications

Useful for rapid and uniform heating of biological samples in applications like preservation, denaturation of nucleic acids and proteins, and many other applications.

Specifications	Mini HCL100	Mini HC100	Mini H100
Display	LCD	LCD	LCD
Temperature setting range[°C]	0-100	0-100	25-100
Temperature range [°C]	Room temperature-23-100	Room temperature-23-100	Room temperature+5-100
Temperature control accuracy[°C]	±0.5	±0.5	±0.5
Temperature display accuracy[°C]	0.1	0.1	0.1
Minimum time taken for heating(25°C+100°C)	≤20min	≤20min	≤20min
Minimum time for cooling(20°C-0°C)	≤25min	≤25min	-
Max. Heating Rate	8°C/min	8°C/min	6.5°C/min
Max. Cooling Rate	3°C/min	3°C/min	-
Time setting range	0-999min/0-999sec	0-999min/0-999sec	0-999min/0-999sec
Program Memory	9(2steps for each)	9(2steps for each)	9(2steps for each)
Temperature self-calibration	Support	Support	Support
USB interface	Support	Support	Support
Error code display	Support	Support	Support
Dimension[WxDxH]	110x162x140mm	110x162x140mm	110x162x140mm
Total Weight [kg]	≤1	≤1	≤1
Voltage,Frequency	DC12V,100-240V, 50/60Hz	DC12V,100-240V, 50/60Hz	DC12V,100-240V, 50/60Hz
Power [w]	60	60	60
Operating temperature[°C]	+10-40	+10-40	+10-40
Operating humidity [% RH]	≤80	≤80	≤80

Thermo Mix HCM100-Pro / HM100-Pro

Thermo Mix series integrates precise and efficient heating & cooling and mixing function

HCM100-Pro-Heating/Cooling/Mixing

HCM100-Pro combines the excellent mixing and accurate temperature control, to make your work efficiently and productively



Features

- Fully programmable
- Precise temperature control for heating and cooling
- Real-time display of speed, temperature and time
- Excellent mixing (200-1500rpm)
- Quick interchange of blocks without tools and automatic block recognition
- Compatible with most popular tubes
- Block equipped with a lid for heat preservation
- Temperature self-calibration

Applications

Precise and efficient heating/cooling and mixing is applicable for many applications such as Gene synthesis, gene purification, gene and protein denaturation, enzymatic reaction, bacterial growth, and others.

Thermo control HC110-Pro

heating and cooling with digital display



Features

- Compact, programmable and overheating protection for safe sample handling
- Precise temperature control for heating and cooling -5°C to 110°C for all major lab applications
- Interchangeable sample blocks available
- Most common application includes reagent warming/cooling, DNA extractions, enzymatic reactions and reactions that need to be processed at or near room temperature.

As low as -5°C

Precise temperature control for heating and cooling between -5°C – 110°C .











Specifications	HCM100-Pro	HM100-Pro	HC110-Pro
Functions	Heating,cooling&mixing	Heating&mixing	Heating&cooling
Temperature range [$^{\circ}\text{C}$]	Below room temp 15– 100	Room temp–100	Below room temp 25– 110
Temperature Setting range [$^{\circ}\text{C}$]	0.1–100	15–100	-5 –110
Temperature control accuracy@20–45 [$^{\circ}\text{C}$]	± 0.5	± 0.5	± 0.5
Temperature uniformity@20–45 [$^{\circ}\text{C}$]	± 0.5	± 0.5	± 0.5
Power [W]	200	200	200
Time setting range	0min–99h30min	0min–99h30min	0min–99h30min
Max Heating speed	5.5 $^{\circ}\text{C}/\text{min}$	5.5 $^{\circ}\text{C}/\text{min}$	5.5 $^{\circ}\text{C}/\text{min}$
Max Cooling speed	5 $^{\circ}\text{C}/\text{min}$ (100 $^{\circ}\text{C}$ –room temp) 0.5 $^{\circ}\text{C}/\text{min}$ (below room temp)	–	2.5 $^{\circ}\text{C}/\text{min}$ (100 $^{\circ}\text{C}$ –room temp) 0.5 $^{\circ}\text{C}/\text{min}$ (below room temp)
Mixing speed [rpm]	200–1500	200–1500	–
Mixing orbit [mm]	3	3	–
Display	TFT	TFT	TFT
Program	9	9	9
Overheating protection [$^{\circ}\text{C}$]	150	150	150
Voltage,Frequency	110/220V, 50/60HZ	110/220V, 50/60HZ	110/220V, 50/60HZ
Dimension [mm]	200x235X120	200x235X120	200x235X120
Weight [kg]	7.3	7.3	7.3
Operating temperature [$^{\circ}\text{C}$]	10–40	10–40	10–40
Operating humidity [% RH]	<80	<80	<80

Blocks

H100-Pro/HC110-Pro/HCM100-Pro/HM100-Pro

Cat.No	18900401	18900402	18900403	18900404	18900405	18900406	18900407	18900420	18900423
Block types									
Capacity	0.5mL × 24	1.5mL × 24	2mL × 24	5mL × 8 round bottom	5mL × 8 cone bottom	15mL × 8	50mL × 4	0.2mL × 8 PCR strips or 0.2mL × 96 PCR microplate	ELISA microplate

HB120-S

Cat.No	Standard	18900218	18900219	18900253	18900220	18900221	18900222	18900224	18900223	18900546	—
	Thin	18900274	18900275	18900276	18900277	—	—	18900278	18900279	—	18900504
Block types											
Capacity		0.2mL × 54	0.5mL × 40	1.5mL × 40	2mL × 40	5/15mL × 28	50mL × 8	0.2mL+0.5mL +1.5/2mL 18+18+18	microplate	5mL blood collection tubex45	0.2mL × 8 PCR strips or 0.2mL × 96 PCR microplate






Capacity	Cat. No. 18900523
Two-in-one block, bead bath/water bath Adapt to S2	

Capacity	Cat. No. 18900520
Aluminum beads	

HB105-S1 /HB105-S2 /HB150-S1 /HB150-S2

Cat.No	18900459	18900460	18900461	18900462	18900463	18900464	18900465	18900522	18900523	18900520
Block types										
Capacity	0.2mL × 30	0.5mL × 20	1.5mL × 20	2mL × 20	5mL × 12	15mL × 12	50mL × 4	Dual purpose block,bead bath/water bath Adapt to S1	Dual purpose block,bead bath/water bath Adapt to S2	Aluminum beads

Mini HCL100/Mini HC100/Mini H100

Cat.No	18900414	18900415	18900416	18900428	18900417	18900426	18900427
Block types							
Capacity	0.2mL × 40	0.5mL × 24	1.5mL × 15	2mL × 15	5mL × 6	15mL × 4	50mL × 2
Diameter × depth	6.4 × 20 mm	8.2 × 28.4mm	11.2 × 31mm	11 × 31mm	17 × 31mm	16.4 × 45mm	29 × 45mm

DWB20-S

Laboratory Water Bath

Features

- Microprocessor-controlled
- Rapid heating, constant temperature after reaching set temperature
- Superior temperature uniformity
- High temperature accuracy and overheating protection
- 304 stainless steel lid
- Temperature up to 80°C and corrosion resistant
- Safe and easy to maintain

Applications

General-purpose water baths are solidly built, with high performance, ideal for a wide range of lab applications for daily routine incubation in variety of research and testing laboratories. It is also used for tissue culture application, enzyme reaction studies, growth observation studies, fermentation analysis and various other general and specialized application in different laboratories.



Specifications	DWB20-S
Display	LED
Temperature range [°C]	Room temp.+5-80
Temperature stability at 37°C [°C]	±0.5
Temperature accuracy at 37°C [°C]	±0.3
Bath volume [L]	20
Overheating protection	yes
External Temperature Sensor	PT1000
Dimension [WxDXH]	667x349x357mm
Housing	Q235 Plastic panel
Parts touch water [including lid]	Stainless steel
Weight [kg]	16.2
Voltage,Frequency	220V, 50/60Hz
Heating power [W]	1000
Ambient temperature [°C]	+10-40
Ambient humidity [% RH]	<80

TC1000-G Thermal Cycler Gradient

TC1000-S Thermal Cycler Standard

Elegant design, excellent precision and accurate, reproducible results and precise PCR optimization

High performance with advanced thermal gradient technology, state-of-the-art electronics, precision peltier device and flexible user interface.

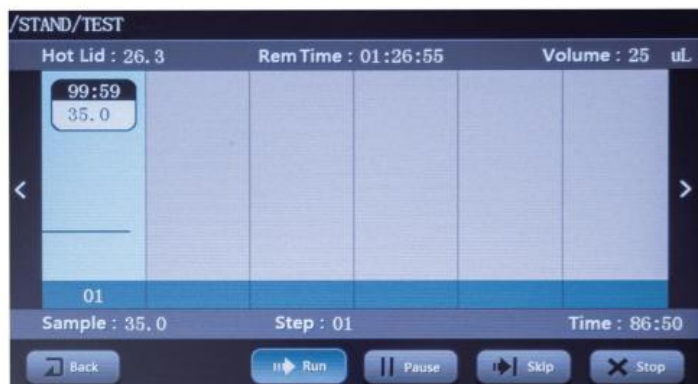
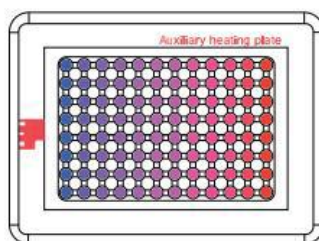
The TC1000G/S is an essential laboratory instrument for molecular biology with applications such as sequencing, gene cloning, gene expression, mutagenesis, and it is also used in areas such as drug discovery, agriculture, food industry, etc.



Excellent temperature uniformity



Temperature gradient



Features

- High performance Peltier and independent heating segments improving temperature control
- Auxiliary heating mechanism diminishes the "edge effect" and enhance the temperature uniformity
- Wide touchdown PCR temperature range (-9.9°C ~ $+9.9^{\circ}\text{C}$) and Long PCR time range ($-9\text{min } 59\text{s}$ ~ $+9\text{min } 59\text{s}$)
- Gradient temperature setting optimizes temperature easily in the single run
- Color touch screen with user friendly interface helps to edit programs easily



More features

- Wide options of consumables: common PCR tubes, 8-well PCR strips and 96-well PCR plates can be used
- File customization, multi-file storage
- Power failure protection function, automatic program recovery
- Hot lid auto-off function: If module temperature is lower than 30 °C, the hot lid function will automatically turn off



LCD touch panel



Excellent temperature accuracy

Technical Parameters	TC1000-G	TC1000-S
Sample Capacity	96X0.2mL PCR tube, 8X12 PCR plate or 96 well plate	96X0.2mL PCR tube, 8X12 PCR plate or 96 well plate
Heating Temperature Range /°C	4~105	4~105
Lid Temperature Range /°C	30~110	30~110
Temperature Display Accuracy /°C	±0.1	±0.1
Temperature Display Accuracy@55	±0.3	±0.3
Temperature uniformity@55°C	<0.3	<0.3
Max. Heating/Cooling Rate	5°C/Sec	5°C/Sec
Gradient Temperature Setting Range /°C	30~99°C	-
Gradient Range /°C	1~42°C	-
Adapter block material	Aluminum	Aluminum
Display	7" LCD 800x480	7" LCD 800x480
Input	Touch panel	Touch panel
User defined file system	Max. 30 segments 99 cycles max.16 folder and16 files each folder	Max. 30 segments 99 cycles max.16 folder and16 files each folder
Power off protection	Yes	Yes
Voltage,Frequency	100~120V/200~240V, 50/60Hz	100~120V/200~240V, 50/60Hz
Dimension[WxDxH]	280x370x250 mm	280x370x250 mm
Weight	11kg	11kg

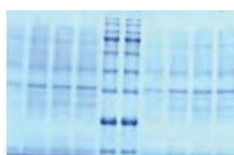
GeISmart

Features

- Compact footprint (216 x 168 x 128 mm) with a viewing area of 10 x10 cm
- Simple operation of experiments and quick acquisition of results
- Blue LED light source for safe imaging with emission of 470nm
- Blue light illuminator is best for fluorescently stained nucleic acid and protein gels
- Adjustable epi-blue light source emits light with high intensity and minimum heat for better light control
- Quick visualization of fluorescently stained gels/membranes
- Filter holder can accommodate most popular smartphones/tablets
- Optional light-weight mobile App



ECO Safe staining



Coomassie blue
stained SDS-PAGE



colony dish image

Applications

GeISmart gel imaging system can be used for qualitative analysis of nucleic acid and protein in purification and /or separation application, or colony counting application. The epi-blue light is harmless and cost saving with substantially longer life. It effectively excites many fluorescent dyes and stains without compromising the integrity of samples to be used for downstream applications, such as subcloning.

GeISmart provides fast access to acquire high quality images of electrophoresis gel or transfer membrane for analysis using smartphone/ tablet.

In addition, Coomassie blue stained SDS-PAGE and colony dishes can be observed with the white light plate mounted on GeISmart. Optionally, you can control the complete imaging system via an app on smartphone or tablet.

Applications



Observe and cut gels safe and sound with the amber filter shield



Specifications	GelSMART
Light Source	470nm epi blue light
White Light Plate	Yes
Protective filter shield	Amber, using when observing or cutting gels
Viewing Area	10 x 10cm
Compatible Dye	DNA: ECO Safe, SYBR Safe, GelGreen Protein; Lightning Red, Silver/ Coomassie blue, SYPRO Ruby
Light Source (L x W x H)	216 x 168 x 54 mm
Light Source Cover (L x W x H)	211 x 161 x 108 mm
Total Size (L x W x H)	216 x 168 x 128 mm
Weight	1.2 Kg
Power Supply	12V / 1.5A AC power adapter
Optional app	for Android 4.4 and above or iOS9.0 and above




Stirring&Heating

Magnetic hotplate stirrers are used for low viscosity liquids or solid mixing, chemical synthesis, physical and chemical analysis, bio-pharmaceuticals etc. provides different series, heating range covers from 120°C-550°C:

Magnetic Hotplate Stirrers:

Series	Model	Image	Stirring Position	Display	Work plate Size	Max. Heating Temp.	Max. stirring quantity (H.OI)	Page
500series	MS10-H500-Pro		1	LCD	254X254mm	500°C	30L	p.49
550 series	MS7-H550-Pro		1	LCD	184x184mm	550°C	20L	p.50
	MS7-H550-S		1	LED	184x184mm	550°C	10L	p.50
340 series	MS-H-Pro ^A		1	LCD	Ø135mm	340°C	20L	p.52
	MS-H-Pro ⁺		1	LCD	Ø135mm	340°C	20L	p.52
	MS-H-Pro ^T		1	LCD	Ø135mm	340°C	20L	p.52
	MS-H-S		1	Scale	Ø135mm	340°C	20L	p.52
380 series	MS-H380-Pro		1	LCD	140x140mm	380°C	5L	p.53
280 series	MS-H280-Pro		1	LED	Ø135mm	280°C	3L	p.53
340 series	MS-H340-S4		4	LCD	Ø135mm	340°C	3Lx4	p.55
120 series	MS-H-S10		10	Scale	180x450mm	120°C	0.4Lx10	p.56

Magnetic Stirrers:

Image	Model	Stirring Position	Display	Work plate Size	Max. stirring quantity(H:O)	Page
	MS7-S	1	Scale	184x184mm	10L	p.63
	MS-S	1	Scale	Ø135mm	20L	p.63
	MS6-Pro	1	LCD	140x140mm	5L	p.63
	MS-PA	1	LED	Ø135mm	3L	p.64
	MS-PB	1	Scale	Ø135mm	3L	p.64
	EcoStir	1	Scale	120x115mm	1.5L	p.66
		1	Scale	Ø120mm	1.5L	p.67
	FlatSpin	1	-	Ø90mm	0.8L	p.66
	MS-M-S10	10	Scale	180x450mm	0.4Lx10	p.65

Hotplate:

Image	Model	Display	Work plate Size	Max. Heating Temp.	Page
	HP500-Pro	LCD	254x254mm	500°C	p.60
	HP550-S	LED	184x184mm	550°C	p.61
	HP380-Pro	LCD	140x140mm	380°C	p.62





Application guidance:

Notice: MS-H380-Pro, HP380-Pro & MS-H280-Pro are not available for chemical fields.

Fields		MS10-H500-Pro MS7-H550-Pro/ MS7-H550-S/ HP500-pro HP550-S	MS-H-Pro ⁴ / MS-H-Pro ¹ / MS-H-Pro ² / MS-H-S/ MS-H340-S	MS-H380-Pro/ HP380-Pro	MS-H280-Pro	MS-H-S10	Magnetic Stirrers (none heating models)
Pharmaceutical	Chemical Synthesis	■	■				
	Biochemical Drugs	■	■				
	Medicine Testing	■	■				
	Drug Formulation	■	■				
Chemical Industry	Petrochemical Industry	■	■				
	Inorganic Chemical Synthesis	■	■				
	Organic Chemical Synthesis	■	■				
	Daily Use Chemical Industry	■	■				
	Painting/Rubber/Plastic	■	■				
	Fertilizer/Pesticide	■	■				
Environmental	Water Quality Analysis				■	■	■
	Pesticide Residue Testing				■	■	■
	Chemical Pollution Analysis				■	■	■
Research & Education	Basic Chemical Experiments	■	■		■	■	■
	Material Analysis			■	■	■	■
	Liquid Mixing			■	■	■	■
	Chemical Synthesis	■	■				
Food Industry	Food Additive	■	■	■	■		
	Dairy Products	■	■	■	■		
	Nutrition Analysis	■	■	■	■		
Biological Engineering	Cell Culture						
	Biological Reagents		■	■	■	■	
	Biochemistry		■	■	■	■	

Overhead stirrers are used for middle or high viscosity samples mixing, widely used in chemical synthesis, pharmaceutical synthesis, physical and chemical analysis, petrochemical industries etc.

Overhead stirrers:

Models					
Models	OS20-Pro	OS20-S	OS40-Pro	OS40-S	OS70-Pro
Max. Stirring Quantity(H2O)	20L	20L	40L	40L	70L
Constant Speed	YES	NO	YES	NO	YES
Display	LCD	LED	LCD	LED	LCD
Speed Range	50-2200rpm	50-2200rpm	50-2200rpm	50-2200rpm	50-1100rpm
Max. Torque	40N · cm	40N · cm	60N · cm	60N · cm	300N · cm
Viscosity Max.	10000mPa · s	10000mPa · s	50000mPa · s	50000mPa · s	100000mPa · s
Page	P.70	P.71	P.70	P.71	P.70



MS10-H500-Pro

**LCD Digital Magnetic Hotplate Stirrer
With 10 Inch Ceramic Plate**



Features

- Large volume: Up to 30L of liquid on 10-inch hot plate with powerful magnetic stirring
- Glass ceramic work plate provides excellent chemical resistant performance and most efficient heat transfer
- LCD display for precise monitoring of speed and temperature. External temperature control is possible by connecting the temperature sensor (PT1000) with an accuracy at $\pm 0.2^{\circ}\text{C}$
- Digital speed control of 100 ~ 1500rpm
- Max. heating plate temperature 500°C
- The "HOT" warning will flash when the work plate temperature is above 50°C even when the hotplate is turned off
- Data connector: The SD card records the instrument's running data in real time.
- Timing function: the running time of the instrument can be set.

MS7-H550-Pro

**LCD Digital Magnetic Hotplate Stirrer
With 7 Inch Ceramic Plate**

MS7-H550-S

**LED Magnetic Hotplate Stirrer
With 7 Inch Ceramic Plate**



Features

- LCD displays actual temperature & speed
- Built-in PID controller ensures safe heating of the medium with overheating protection
- Maximum heating plate temperature up to 550°C
- Glass ceramic work plate is resistant to corrosion and is easy to clean
- External temperature control is possible by connecting temperature sensor(PT1000) with an accuracy of $\pm 0.2^{\circ}\text{C}$
- Digital speed control with maximum range of 1500rpm
- Outstanding brushless DC motor offers more stirring power
- Two knobs enable easy adjustment of speed and temperature
- "HOT" warning flashes when work plate temperature is above 50°C even when hotplate is turned off
- Remote function provides PC control and data transmission

Specifications	MS10-H500-Pro	MS7-H550-Pro	MS7-H550-S
Work plate Dimension [W x D]	254x254mm (10 inch)	184x184mm (7 inch)	184x184mm (7 inch)
Work plate material	Glass ceramic	Glass ceramic	Glass ceramic
Motor type	Brushless DC motor	Brushless DC motor	Shaded pole motor
Stirring positions	1	1	1
Max. stirring quantity, [HzO]	30L	20L	10L
Max. magnetic bar[length]	80mm	80mm	80mm
Speed range	100–1500rpm, resolution ± 1 rpm	100–1500rpm, resolution ± 1 rpm	0–1500rpm
Speed display	LCD	LCD	Scale
Temperature display	LCD	LCD	LED
Heating temperature range	Room Temp.–500°C, increment 1°C	Room Temp.–550°C, increment 1°C	Room Temp.–550°C, increment 5°C
Temperature control accuracy	$\pm 1^\circ\text{C}(<100^\circ\text{C}) \pm 1\%(>100^\circ\text{C})$	$\pm 1^\circ\text{C}(<100^\circ\text{C}) \pm 1\%(>100^\circ\text{C})$	$\pm 10^\circ\text{C}$
Overheating protection	540°C	580°C	580°C
Temperature display accuracy	$\pm 0.1^\circ\text{C}$	$\pm 0.1^\circ\text{C}$	$\pm 1^\circ\text{C}$
External temperature sensor	PT1000(accuracy $\pm 0.2^\circ\text{C}$)	PT1000(accuracy $\pm 0.2^\circ\text{C}$)	PT1000(accuracy $\pm 0.2^\circ\text{C}$)
"Hot" warning	50°C	50°C	50°C
Data connector	SD card	RS232	–
Protection class	IP21	IP21	IP21
Motor rating input	18W	18W	15W
Motor rating output	10W	10W	1.5W
Power	1400W	1050W	1030W
Heating output	1350W	1000W	1000W
Voltage,Frequency	100–120/200–240V, 50/60Hz	100–120/200–240V, 50/60Hz	100–120/200–240V, 50/60Hz
Dimension [WxDxH]	328x424x138mm	215x360x112mm	215x360x112mm
Weight	7.2kg	5.3kg	4.5kg
Timer function	1min–99h59min	–	–
Permissible ambient temperature and humidity	5–40°C,80%RH	5–40°C,80%RH	5–40°C,80%RH



Overheating protection



External sensor



Chemical resistance



Wide range of accessories

MS-H-PRO^A

LCD Digital Magnetic Hotplate Stirrer

Three heating models for selecting (fast heating, standard heating and stable heating)

MS-H-PRO⁺

LCD Digital Magnetic Hotplate Stirrer

MS-H-Pro^T

LCD Digital Magnetic Hotplate Stirrer with Timer

MS-H-S

Analog Magnetic Hotplate stirrer



Features

- Brushless DC motor is maintenance free and explosion-proof
- Digital temperature control up to 340°C
- Digital speed control up to 1500rpm
- Maximum stirring quantity of H₂O is 20L
- Safety circuits provide overheating protection
- "HOT" warning flashes if plate temperature is above 50°C even when hotplate is turned off
- Wide range timer function from 1 min to 99h 59min (MS-H-Pro^T only)
- High-resolution LCD display shows actual temperatures and speed (MS-H-Pro^T displays the time)
- External temperature control is possible by connecting the temperature sensor (PT 1000) with accuracy at $\pm 0.2^\circ\text{C}$
- Work plate with ceramic coating provides good chemical-resistant performance
- Remote function provides PC control and data transmission
- Wide variety of accessories available to choose

Security

- International safety certification: CE, CTÜVUS, FCC and other product safety cert, certifications issued by TUV Rheinland
- Safety circuits provide overheating protection
- "HOT" warning flashes if the work plate temperature is above 50°C
- Brushless DC motor is maintenance free and explosion-proof
- Fully enclosed aluminum alloy housing with good heat dissipation performance and reliable protection capability



External sensor



RS232 connector



Wide range of accessories



Chemical resistance



Brushless DC motor

MS-H380-Pro

LCD Digital Magnetic Hotplate Stirrer

Features

- Maximum heating temperature is 380°C
- High resolution LCD displays actual temperature and speed
- Brushless DC motor is maintenance free
- Aluminum ceramic coating work plate, allowing immediate heat transfer
- External temperature control is possible with temperature sensor PT1000
- Digital speed control with maximum speed up to 1500rpm
- Maximum stirring quantity of H₂O at 5L



MS-H280-Pro

LED Digital Magnetic Hotplate Stirrer

MS-H280-Pro is a perfect hotplate stirrer for handling small volume task and daily applications, with maximum temperature of 280°C

Features

- Digital temperature control with maximum temperature up to 280°C
- Digital speed control with maximum speed up to 1500rpm
- Stainless steel with ceramic coating work plate provides high chemical resistant performance
- External temperature control is possible by connecting temperature sensor(PT1000) with an accuracy at $\pm 0.2^{\circ}\text{C}$
- LED display shows temperature and stirring speed
- "HOT" warning flashes if work plate temperature is above 50°C

Specifications	MS-H-Pro ^A	MS-H-PRO ⁺	MS-H-PRO ^T	MS-H-S	MS-H380-Pro	MS-H280-Pro
Work plate Dimension [W x D]	Ø135mm (5 inch)	Ø135mm (5 inch)	Ø135mm (5 inch)	Ø135mm (5 inch)	140x140mm	Ø135mm (5 inch)
Work plate material	Aluminum cover with ceramic coating	stainless steel cover with ceramic coating	stainless steel cover with ceramic coating	stainless steel cover with ceramic coating	Aluminum cover with ceramic coating	stainless steel cover with ceramic coating
Motor type	Brushless DC motor	Brushless DC motor	Brushless DC motor	Brushless DC motor	Brushless DC motor	Brushless DC motor
Stirring positions	1	1	1	1	1	1
Max. stirring quantity, [H ₂ O]	20L	20L	20L	20L	5L	3L
Max. magnetic bar[length]	80mm	80mm	80mm	80mm	50mm	50mm
Speed range	100-1500rpm resolution ± 1rpm	100-1500rpm resolution ± 1rpm	100-1500rpm resolution ± 1rpm	0-1500rpm	200-1500rpm	200-1500rpm
Speed display	LCD	LCD	LCD	Scale	LCD	LED
Temperature display	LCD	LCD	LCD	Scale	LCD	LED
Heating temperature range	Room temp. -340℃, increment 1℃	Room Temp. -340℃, increment 1℃	Room Temp. -340℃, increment 1℃	Room Temp. -340℃	Room Temp. ± 5-380℃	Room Temp. ± 5-280℃
Heating liquid temperature control accuracy	± 1℃ (<100℃) ± 1% (>100℃)	± 1℃ (<100℃) ± 1% (>100℃)	± 1℃ (<100℃) ± 1% (>100℃)	-	± 1℃ (<100℃) ± 1% (>100℃)	± 1℃ (<100℃) ± 1% (>100℃)
Overheating temperature protection	420℃	420℃	420℃	420℃	420℃	320℃
Temperature display accuracy	± 0.1℃	± 0.1℃	± 0.1℃	± 0.5℃	± 0.1℃	± 1℃
External temperature sensor	PT1000 (accuracy ± 0.2℃)	PT1000 (accuracy ± 0.2℃)	PT1000 (accuracy ± 0.2℃)	-	PT1000 (accuracy ± 0.2℃)	PT1000 (accuracy ± 0.2℃)
"Hot" warning	50℃	50℃	50℃	-	-	50℃
Data connector	RS232	RS232	RS232	-	-	-
Protection class	IP21	IP21	IP21	IP21	IP21	IP42
Timer function	-	-	1min to 99h59min	-	-	-
Motor rating input	18W	18W	18W	18W	2.4W	5W
Motor rating output	10W	10W	10W	10W	1.8W	3W
Power	650W	550W	550W	530W	510W	515W
Heating output	600W	500W	500W	500W	500W	500W
Voltage,Frequency	100-120/200-240V, 50/60Hz	100-120/200-240V, 50/60Hz	100-120/200-240V, 50/60Hz	100-120/200-240V, 50/60Hz	100-120/200-240V, 50/60Hz	100-120/200-240V, 50/60Hz
Dimension [WxDxH]	280x160x100mm	160x280x100mm	160x280x100mm	160x280x100mm	320x180x108mm	150x260x100mm
Weight	2.8kg	2.8kg	2.8kg	2.8kg	2.2kg	1.8kg
Permissible ambient temperature and humidity	5-40℃,80%RH	5-40℃,80%RH	5-40℃,80%RH	5-40℃,80%RH	5-40℃,80%RH	5-40℃,80%RH





It is widely used in chemical synthesis, physical and chemical analysis, bio pharmaceuticals etc.

Features

- Independent heating and stirring control for each position
- LCD display shows real-time temperature and speed
- PID controller ensures a precise and stable heating process (maximum temperature up to 340°C)
- Brushless DC motor is quiet, reliable & maintenance free, and provides more powerful speed control
- External temperature sensor (PT1000) with accuracy 0.2°C
- Overheating protection temperature at 420°C
- Stainless steel work plate with ceramic coating provides good chemical resistance
- Wide variety of accessories available to choose from

MS-H340-S4

LCD 4-Channel Digital Magnetic Hotplate Stirrer



Specifications	MS-H340-S4
Work plate dimension	Ø135mm(5inch) x4
Plate material	Stainless steel with ceramic coating
Motor type	Brushless DC motor
Stirring positions	4
Max. stirring quantity of single position (H ₂ O)	10L x 4
Max. magnetic bar	40mm
Speed range	200~1500rpm
Speed display	LCD
Temperature display	LCD
Control accuracy of sensor	± 20rpm
Temperature range	25~340°C
Over temperature protection	420°C
Temperature display accuracy	± 0.1°C
External temperature sensor	PT1000(accuracy ± 0.2°C)
IP Protection class	IP20
Motor input power	1.8Wx4
Power	515Wx4
Heating Power	500Wx4
Voltage,Frequency	100~120V,60Hz; 200~240V,50 Hz
Dimensions[WxDxH]	698x270x128mm
Weight	9.5kg
Permissible ambient temperature	5~40°C
Permissible relative humidity	80%RH

MS-H-S10

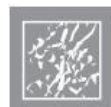
10-Position Magnetic Hotplate Stirrer



Specifications	MS-H-S10
Work plate dimension[W x D]	180x450mm
Work Plate material	Stainless steel covered with silicone cushion
Motor type	Brushless DC motor
Stirring positions	10
Max. stirring quantity	0.4Lx10
Max. magnetic bar [length]	40mm
Speed range	0~1100rpm
Speed display	scale
Temperature display	scale
Heating temperature range	Room temp.-120°C
Over temperature protection	140°C
IP Protection class	IP20
Motor rating input	12W
Motor rating output	4W
Power	490W
Heating Powe	470W
Voltage,Frequency	100-120/200-240V, 50/60Hz
Dimensions[WxDxH]	182 × 622 × 65mm
Weight	3.2kg
Permissible ambient temperature and humidity	5-40°C, 80%RH

Features

- Maintenance-free brushless DC motor °C
- Maximum speed 1100rpm
- Maximum temperature of work plate up to 120°C
- Stainless steel work plate, Covered with silicone cushion, provide excellent of heating uniformity and skid resistance



Skid resistance



Multiple position



Brushless DC motor



Tips for temperature control

- It is recommended to use the beads with all full ranges hotplate magnetic stirrers
- Place the external temperature sensor in the hole on the heating bath and ensure that the probe is submerged within 1/2~1/3 of the depth of the bead

Alloy-Bead Heating Bath





Features

- High strength aluminum alloy beads provides high thermal conductivity over wide temperature range
- Flexible, convenient, easy to operate and adaptable to reaction essels with different shapes and sizes
- Accommodates the external temperature probe on hotplate magnetic stirrer to achieve precise temperature control
- The alloy beads do not adhere to the container inside surface, whereas the silicone oil when used is difficult to dean in oil bath application
- Eco-friendly, pollution free, paisan free, fume free, highly safe and splash free heating
- PTFE shell can effectively retains the heat and ensure human safety fram burn injuries
- The beads are easy to clean and replace separately



Stirrer bars

Stirrer bars and stirrer bar remover(PTFE), use below 150°C

Cat. No.	Size of stirrer bars (LxØ)[mm]	Models		
		MS7-H550-Pro MS7-H550-S MS-H500-Pro MS-H380-Pro MS-H340-S4 MS-H-Pro* MS-H-Pro [†] MS-H-Pro ^Δ MS-H-S MS-S	MS-H280-Pro MS-PA MS-PB	MS-H-S10 MS-M-S10 FlatSpin EcoStir
		Suitable for max. stirrer bar 80mm	Suitable for max. stirrer bar 50mm	Suitable for max. stirrer bar 40mm
 18900006	10mmx6mm	■	■	■
 18900007	15mmx8mm	■	■	■
 18900008	20mmx8mm	■	■	■
 18900009	25mmx8mm	■	■	■
 12500005	30mmx6mm	■	■	■
 18900011	40mmx8mm	■	■	■
 12500004	50mmx8mm	■	■	
 18900013	65mmx8mm	■		
 18900014	80mmx13mm	■		
 18900015	Stirrer bar remover, length of 200mm	■	■	■



Cat. No.	Description	MS10-H500-PRO	MS7-H550-S	MS-H-Pro ⁺	MS-H-Pro ^T	MS-H-S	MS-H280-Pro
 18900001	Blue carrying plate, use with color quarter pies						
 18900065	Blue Fixed ring, use with color quarter pies						
 18900002	Red quarter pie, 11 holes, 4 mL reaction vessel, Ø15.2mm, 20mm depth						
 18900003	Purple quarter pie, 4 holes, 20 mL reaction vessel, Ø28mm, 24mm depth						
 18900004	Blue quarter pie, 4 holes, 30mL reaction vessel, Ø28mm, 30mm depth						
 18900005	Black quarter pie, 4 holes, 40mL reaction vessel, Ø28mm, 43mm depth						
 18900048	Green quarter pie, 6 holes, 8mL reaction vessel, Ø17.8mm, 26mm depth						
 18900049	Golden quarter pie, 4 holes, 16mL reaction vessel, Ø21.6mm, 31.7mm depth						
 18101006	Reaction block for 50mL round bottom flask (one flask capacity)						
 18101007	Reaction block for 100mL round bottom flask (one flask capacity)						
 18101008	Reaction block for 250mL round bottom flask (one flask capacity)						
 18101009	Reaction block for 500mL round bottom flask (one flask capacity)						
 18900019	F101 protective cover, temperature resistance of 135°C						
 18900016	PT1000-A, length of 230mm						
 18900136	PT1000-B, temperature sensor with glass coated, length of 230mm						
 18900017	Support clamp of PT1000						
 18900148	Support clamp of PT1000						



HP500-Pro

LCD Digital Hotplate

Features

- LCD screen shows temperature, Max. temperature up to 500°C
- 10-inch glass ceramic work plate provides excellent chemical-resistant performance and most efficient heat transfer
- External temperature control is possible by connecting the temperature sensor (PT 1000) with an accuracy at $\pm 0.2^{\circ}\text{C}$
- The "HOT" warning will flash if the work plate temperature is above 50°C even when the hotplate is turned off
- Heating temperature: room temperature -500°C.
- Data connector : The SD card records the instrument's running data in real time.
- Timing function: the running time of the instrument can be set.

Specifications	HP500-Pro
Work plate Dimension [W x D]	254x254mm (10 inch)
Work plate material	Glass ceramic
Heating position	1
Heating temperature range	Room Temp.-500°C, increment 1°C
Temperature control accuracy	$\pm 1^{\circ}\text{C}$ (<100°C) $\pm 1\%$ (>100°C)
Safety temperature	540°C
Temperature,time display	LCD
Timer function	1min-99h59min
Temperature display accuracy	$\pm 0.1^{\circ}\text{C}$
External temperature sensor	PT1000($\pm 0.2^{\circ}\text{C}$)
"Hot" warning	50°C
Protection class	IP21
Power	1400W
Heating output	1350W
Voltage,Frequency	100-120/200-240V, 50/60Hz
Dimension[WxDxH]	328x424x138mm
Weight	7.2kg
Permissible ambient temperature and humidity	5-40°C, 80%RH

HP550-S

LED Hotplate



Specifications	HP550-S
Work plate Dimension [W x D]	184x184mm (7 inch)
Work plate material	Glass ceramic
Heating position	1
Heating temperature range	Room Temp.-550°C, increment 5°C
Control accuracy of work plate	± 10°C
Safety temperature	580°C
Temperature display	LED
Temperature display accuracy	± 1°C
External temperature sensor	PT1000 (accuracy ± 0.2°C)
Heating warning	50°C
Protection class	IP21
Power	1010W
Heating Power	1000W
Voltage,Frequency	100-120/200-240V, 50/60Hz
Dimension[WxDxH]	215x360x112mm
Weight	4.5kg
permissible ambient temperature and humidity	5-40°C, 80%RH

Features

- LED screen display actual and accurate temperature
- Maximum temperature up to 550°C
- Separate safety circuits with safety temperature of 580°C
- External temperature control is possible by connecting temperature sensor (PT 1000) with an accuracy of ± 0.2°C
- Work plate provides excellent chemical-resistant performance and most efficient heat transfer
- "HOT" warning flashes when the workplate temperature is above 50°C

HP380-Pro

LCD Digital Hotplate



Features

- Maximum heating temperature is 380 °C
- High resolution LCD displays actual temperature
- Aluminum ceramic coating work plate, allowing a immediate heat transfer
- External temperature control is possible with temperature sensor PT1000

Specifications	HP380-Pro
Work plate Dimension [W x D]	140x140mm (6 inch)
Work plate material	Aluminum cover with ceramic coating
Heating position	1
Heating temperature range	Room temp.-340°C increment 1°C
Over heat Protection	420°C
Temperature,time display	LCD
Temperature display accuracy	±1°C
External temperature sensor	PT1000(±0.2°C)
Protection class	IP21
Power	510W
Heating output	500W
Voltage,Frequency	100-120/200-240V, 50/60Hz
Dimension[WxDxH]	180x320x108mm
Weight	2.2kg
Permissible ambient temperature and humidity	5-40°C, 80%RH

MS-S

Magnetic Stirrer

MS7-S

7" Square Magnetic Stirrer

- Speed range of 0–1500rpm
- Maximum stirring quantity of H₂O up to 10L
- Ceramic work plate provides excellent corrosion resistance



MS7-S



MS-S



MS6-Pro

MS6-Pro

LCD Digital Magnetic Stirrer

- High resolution LCD displays actual stirring speed
- Brushless DC motor is maintenance free
- Aluminum covered ceramic coating, corrosion resistant and easy to clean
- Digital speed control up to 1500rpm
- Maximum stirring quantity of H₂O at 5L

Specifications	MS7-S	MS-S	MS6-Pro
Work plate Dimension [W x D]	184x184mm (7 inch)	Ø135mm (5 inch)	140x140mm
Work plate material	Glass ceramic	Stainless steel cover with ceramic	Aluminum cover with ceramic coating
Motor type	Shaded pole motor	Brushless DC motor	Brushless DC motor
Stirring positions	1	1	1
Max. stirring quantity[H ₂ O]	10L	20L	5L
Max.magnetic bar[length]	80mm	80mm	40mm
Speed range	0–1500rpm	0–1500rpm	200–1500rpm
Speed display	Scale	Scale	LCD
Protection class	IP21	IP21	IP21
Motor input Power	15W	18W	2.4W
Motor output Power	1.5W	10W	1.8W
Power	30W	30W	10W
Voltage,Frequency	100–120/200–240V, 50/60Hz	100–240V, 50/60Hz	100–240V, 50/60Hz
Dimension[WxDxH]	215x360x112mm	160x280x85mm	320x180x108mm
Weight	3.8kg	2.8kg	2.2kg
Permissible ambient temperature and humidity	5–40℃, 80%RH	5–40℃, 80%RH	5–40℃, 80%RH

MS-PA

LED Digital Magnetic Stirrer

MS-PB

Magnetic Stirrer

Features

- Digital speed control within the range of 0-1500rpm
- Maximum stirring quantity of H₂O at 3L
- LED display shows stirring speed (MS-PA)



Specifications	MS-PA	MS-PB
Work plate Dimension	Ø135mm (5 inch)	Ø135mm (5 inch)
Work plate material	Nylon+GF	Nylon+GF
Motor type	Brushless DC motor	Brushless DC motor
Stirring positions	1	1
Max. stirring quantity[H ₂ O]	3L	3L
Max.magnetic bar[length]	50mm	50mm
Speed range	0-1500rpm	0-1500rpm
Speed display	LED	scale
Protection class	IP42	IP42
Motor input power	5W	5W
Motor output Power	3W	3W
Power	15W	10W
Voltage,Frequency	100-120/200-240V, 50/60Hz	100-120/200-240V, 50/60Hz
Dimension[WxDxH]	150x260x80mm	150x260x80mm
Weight	1.8kg	1.8kg
Permissible ambient temperature and humidity	10-40℃,80%RH	5-40℃,80%RH



Strong magnetism



Chemical resistance



LED display

MS-M-S10

10-Position Magnetic Stirrer



Specifications	MS-M-S10
Work plate Dimension [W x D]	180 × 450mm
Work plate material	Stainless steel with silicone coating
Motor type	Brushless DC motor
Stirring positions	10
Max. stirring quantity[H ₂ O]	0.4Lx10
Max.magnetic bar[length]	40mm
Speed range	0-1100rpm
Speed display	Scale
Protection class	IP20
Motor input Power	12W
Motor output Power	4W
Power	20W
Voltage,Frequency	100-120/200-240V, 50/60Hz
Dimension[WxDxH]	622x205x65mm
Weight	3.2kg
Permissible ambient temperature and humidity	5-40℃, 80%RH

Features

- Efficient, simple and safe stirring
- High performance and space-saving design to maximize the use of benchtop space and saving time by stirring multiple solutions
- Maintenance-free brushless DC motor
- Speed range 0-1100rpm
- Stainless steel work plate covered with silicone cushion, provides excellent performance of skid resistance



Skid resistance



Multiple position

FlatSpin

Ultra-flat Compact Magnetic Stirrer

With excellent stirring functionality, the compact shape of FlatSpin takes less bench space and makes storage easier.



Specifications	FlatSpin
Work plate Dimension	Ø90mm
Work plate material	PET
Stirring positions	1
Max. stirring quantity[H ₂ O]	0.8L
Max.magnetic bar[length]	40mm
Speed range	15-1500rpm
Protection class	IP21
Output Power	3W
Power	5W
Voltage,Frequency	100-120/200-240V, 50/60Hz
Dimension[WxDxH]	175x120x15mm
Weight	0.3kg
Permissible ambient temperature and humidity	5-40°C, 80%RH

Features

- Speed range 15 to 1500rpm
- Automatic reverse rotation for excellent mixing
- PET top work plate provides excellent chemical resistance
- Motorless technology provides ultra silent and vibration-free operation
- Perfect magnetic stirrer for use during titration (bottle-top burette) in analytical chemistry



EcoStir

Economical Magnetic Stirrer

EcoStir is a magnetic stirrer customized for liquid mixing, suitable for chemical analysis, biology reagent mixing, regular laboratory experiments and liquid handling.

Features

- Maintenance free brushless DC motor
- Rare earth magnets give powerful stirring
- Stepless speed regulation 300-2000rpm
- Ultra silence and vibration-free design
- PET top provides excellent chemical resistance
- Shaft can be fitted with a pH sensor or other sensors for different purposes

EcoStir

Square Plate Magnetic Stirrer

Square Plate Magnetic Stirrer with electrode holder has a reliable design and a powerful stirring ability. It is a basic and ideal tool for electrochemistry measurements or water & environment monitoring; drug or food analysis; liquid culture mixing, etc.

Features

- Compact design with small footprint, 12V voltage available for mobile labs.
- Square work plate supports 1.5L stirring capacity.
- Holder with clamp for pH electrode or other sensor.
- Default PET top provides excellent chemical resistance.
- Extra colorful stickers satisfy DIY design by yourself.
- Maintenance free brushless DC moto.
- An economical choice of a reliable & durable magnetic stirrer with an electrode holder for stable & powerful stirring ability.



Specifications	EcoStir	EcoStir
Work plate size	120x115mm	Ø120mm
Work plate material	PET	PET
Motor type	Brushless DC Motor	Brushless DC motor
Stirring position	1	1
Max. stirring quantity (H ₂ O)	1.5L	1.5L
Max. magnetic bar (length)	40mm	40mm
Speed range	300~2000rpm	300~2000rpm
Speed setting	Scale	scale
Protection class	IP21	IP21
Motor output power	1.2W	1.2W
Power	7.2W	7.2W
Voltage, Frequency	DC 12V, 100~240V, 50/60Hz	100~120/200~240V, 50/60Hz
Dimension [WxDxH]	150x144x54mm	150x145x50mm
Weight	0.3Kg	0.3kg
Permissible ambient temperature and humidity	5~40°C, 80%RH	5~40°C, 80%RH

D-160

Handheld Homogenizer

Features

- Portable, lightweight with ergonomic design ideal for manual operations
- Processing volumes from 0.1–50mL or 1–250mL
- Variable speed from 8,000 to 32,000 rpm
- 316L stainless steel shafts are fully autoclavable
- Interchangeable shafts for easy dismantling and cleaning

Applications

Designed for rapidly homogenize, emulsify, suspend and disrupt biological samples like tissue of animal, bacteria, yeast, plant samples, etc. in liquids. Ideal for samples from 0.1mL to 250mL depending on shaft chosen.



Specifications	D-160
Speed range	8000–32000rpm
Max linear velocity	6.3m/sec or 14m/sec
Speed level	10 stage
Working volume [H ₂ O]	0.1–50mL (Dispersing shaft DS-160/5)
	1–250mL (Dispersing shaft DS-160/10)
Max. viscosity	5,000mPas
Material of Dispersing Shaft	SS 316L stainless steel, PTFE
Noise	72 dB(A)
Protection class	IP20
Voltage, Frequency	110–120V/60Hz
	220–240V/50–60Hz
Power	160W
Motor Type	AC carbon brush motor
Dimension [WxDxH]	45mm x 55mm x 190mm
Weight	0.54 kg
Permissible ambient temperature and humidity	0–40°C, 85%RH



D-160

Handheld Homogenizer

DS-160/5**Cat. No.18900543**

Volume 0,1-50mL
Max. Circum. Speed 6,3m/sec
Material: 316L stainless steel
Application: small amounts of solid
liquid mixed
Function: dispersing tool for
solid/liquid media

DS-160/10**Cat. No.18900544**

Volume 1-250mL
Max. Circum. Speed 14m/sec
Material: 316L stainless steel
Application: small amounts of solid
liquid mixed
Function: dispersing tool for
solid/liquid media

OS20-Pro/OS40-Pro/ OS70-Pro

LCD Digital Overhead Stirrer

Overhead Stirrers are competent for most demanding tasks with guaranteed safety and performance. They are widely used in chemical synthesis, pharmaceutical synthesis, physical and chemical analysis, petrochemical industries, etc.



Specifications	OS20-Pro	OS40-Pro	OS70-Pro
Max. stirring quantity[H ₂ O]	20L	40L	70L
Speed range	50~2200rpm	50~2200rpm	50~1100rpm
Speed display accuracy	± 3rpm	± 3rpm	± 10rpm
Time settings range	-	-	0~99h59min
Max. torque	40N · cm	60N · cm	300N · cm
Viscosity max.	10000mPa · s	50000mPa · s	100000mPa · s
Weight	2.8kg	2.8kg	3.2kg
Motor type	Brushless DC motor	Brushless DC motor	Brushless DC motor
Voltage,Frequency	100~240V, 50/60 Hz	100~240V, 50/60 Hz	100~240V, 50/60 Hz
Speed display	LCD	LCD	LCD
Torque display	LCD	LCD	LCD
Overload protection display	LCD	LCD	LCD
Chuck clamp range diameter	0.5~10mm	0.5~10mm	0.5~10mm
Motor input/output power	60W/50W	120W/100W	180W/160W
Power	70W	130W	200W
Dimension[WxHxD]	83 x 220 x 186mm	83 x 220 x 186mm	83 x 220 x 186mm
Protection class	IP21	IP21	IP21
Permissible ambient temperature and humidity	5~40℃,80%RH	5~40℃,80%RH	5~40℃,80%RH
Data interface	RS232	RS232	RS232



OS20-S/OS40-S

LED Overhead Stirrer

Features

- High reliability and outstanding performance
- Wide range of speed from 50 to 2200rpm
- Brushless DC motor for long life, maintenance free and explosion proof
- LED screen for monitoring actual speed
- Safety circuits allow for safe stop function in anti-stall or overload conditions
- Large chuck diameter for many shaft types

Plate Stands

Universal Plate Stand (for OS20/40/70)

Cat. No.18900258



Dimension [W x D x H] :
20x31x78cm
Material: cast iron

Grand Plate Stand (for OS70)

















Cat. No.18900497



Dimension [W x D x H] :
33.5x46.3x78cm
Material: cast iron

Specifications	OS20-S	OS40-S
Max. stirring quantity[H ₂ O]	20L	40L
Speed range	50~2200rpm	50~2200rpm
Max. torque	40N · cm	60N · cm
Viscosity max.	10000mPa · s	50000mPa · s
Motor type	Brushless DC motor	Brushless DC motor
Speed display	LED	LED
Overload protection display	LED	LED
Chuck range diameter	0.5~10mm	0.5~10mm
Motor input power	60W	120W
Motor output power	50W	100W
Power	70W	130W
Voltage,Frequency	100~240V, 50/60 Hz	100~240V, 50/60 Hz
Dimension[WxDxH]	83 x 220 x 186mm	83 x 220 x 186mm
Protection class	IP21	IP21
Weight	2.8kg	2.8kg
Permissible ambient temperature and humidity	5~40℃,80%RH	5~40℃,80%RH

Overhead Stirrer provides a variety of stirring tools, such as impellers, paddles and blades:

Propeller stirrer Shaft length: 40cm Stirrer diameter: 5cm Shaft diameter: Ø8mm Material: 316L stainless steel Standard stirring applications at medium and high speed	Cat. No.18900071 	Paddle stirrer Shaft length: 40cm Stirrer diameter: 6.8cm Shaft diameter: Ø8mm Material: 316L stainless steel For gentle mixing at low and medium speeds	Cat. No.18900073 
Straight stirrer Shaft length: 40cm Stirrer diameter: 6cm Shaft diameter: Ø8mm Material: 316L stainless steel For low viscosity media at medium and high speeds	Cat. No.18900072 	Centrifugal stirrer Shaft length: 40cm Stirrer diameter: 9cm Shaft diameter: Ø8mm Material: 316L stainless steel Blades open while speeding. For narrow neck vessels at medium to high speed.	Cat. No.18900074 
Propeller stirrer Shaft length: 35cm Stirrer diameter: 6.5cm Shaft diameter: Ø8mm Material: PTFE coated Standard stirring applications at medium and high speed	Cat. No.18900075 	Paddle stirrer Shaft length: 35cm Stirrer diameter: 6.8cm Shaft diameter: Ø8mm Material: PTFE coated For gentle mixing at low and medium speeds	Cat. No.18900077 
Straight stirrer Shaft length: 35cm Stirrer diameter: 7cm Shaft diameter: Ø8mm Material: PTFE coated For low viscosity media at medium and high speeds	Cat. No.18900076 	Centrifugal stirrer Shaft length: 35cm Stirrer diameter: 8.5cm Shaft diameter: Ø8mm Material: PTFE coated Blades open while speeding. For narrow neck vessels at medium to high speed.	Cat. No.18900078 
Grand propeller stirrer Shaft length: 60cm Stirrer diameter: 10cm Shaft diameter: Ø8mm Material: 316L stainless steel Standard stirring	Cat. No. 18900478 	Grand paddle stirrer Shaft length: 60cm Stirrer diameter: 10cm Shaft diameter: Ø8mm Material: 316L stainless steel Gentle mixing for those stratify easily or sensitive to shear	Cat. No.18900499 
Grand anchor stirrer Shaft length: 60cm Stirrer diameter: 10cm Shaft diameter: Ø8mm Material: 316L stainless steel Standard stirring or for those easily precipitate	Cat. No. 18900498 	Grand dissolving stirrer Shaft length: 60cm Stirrer diameter: 10cm Shaft diameter: Ø8mm Material: 316L stainless steel Breaking down granules in the mixture with strong shear	Cat. No.18900500 
Flat-blade stirrer Shaft length: 40cm Stirrer diameter: 6cm Shaft diameter: Ø8mm Material: 316L stainless steel Suitable for medium speed stirring, low viscosity and medium viscosity materials	Cat. No. 18900625 	Anchor stirrer Shaft length: 40cm Stirrer diameter: 6cm Shaft diameter: Ø8mm Material: 316L stainless steel Suitable for low speed stirring, medium viscosity and high viscosity materials	Cat. No.18900627 
Radial-flow stirrer Shaft length: 40cm Stirrer diameter: 5cm Shaft diameter: Ø8mm Material: 316L stainless steel Suitable for medium speed or high speed agitation, low viscosity or medium viscosity materials, recommended for the treatment of gas in liquid	Cat. No. 18900626 	Spiral stirrer Shaft length: 40cm Stirrer diameter: 5cm Shaft diameter: Ø8mm Material: 316L stainless steel Suitable for medium speed or high speed agitation, medium viscosity and high viscosity materials, recommended for liquid homogenization or suspension treatment	Cat. No. 18900628 






Distilling

Evaporation Solutions!
Leading Laboratory & Industrial Rotary evaporator

Rotary evaporator is an indispensable equipment for processes of evaporation, concentration, crystallization, drying, separation, and solvent recovery in many fields, and it is mainly used for continuous distillation of large amounts of volatile solvents under reduced pressure. It can be applied in different areas such as biological, pharmaceutical, chemical and even food&beverage industries.

Rotary Evaporator models :

Series	Lab Scale Rotary Evaporator		Industrial Scale Rotary Evaporator
			
Model	RE100-Pro	RE100-S	RE200-Pro
Evaporating Flask Volume	50-2000mL	50-2000mL	20L
Evaporation capacity (H ₂ O)	1.56L/h	1.56L/h	4.0L/h
Automatic lifting	YES	No (Manual lifting)	YES
Display	LCD	LED	LCD
Page	P.77	P.78	P.75

RE200-Pro

20L Industrial Digital Rotary Evaporator

A promise of safety, reliability & highest level of efficiency for large volumes



Features

- Large LCD digital display with heating temperature, rotation speed, clockwise&anticlockwise and time information
- One-click automatic motor lifting (stroke 180mm), smooth and silent
- Water/ oil heating bath with wide temperature range from RT to 180 °C
- Speed range from 10 to 150rpm, and interval operation in clockwise and anticlockwise directions for drying process
- Two-section vertical triple coil condensing tube with large area and strong evaporation capacity ensuring high-efficiency sample recovery
- Patented connector for evaporating flask easy & quick installation
- PTFE double sealing ring with excellent sealing performance
- Switch valve for continuous collection without compromising the system vacuum and solvent distillation

Applications

Suitable for pilot-scale production, large-scale application in biology engineering, pharmaceutical industry, chemical industry, beauty industry, medical industry and food processing.



Large LCD display



Overheating protection



Chemical resistance



Two-section vertical triple coil condenser

large condensation area and strong evaporation capacity ensuring high efficient sample recovery



Switching valve design

switch valve for continuous collection without compromising the system vacuum and solvent distillation



Heating bath

- Water & oil bath
- Enhanced lifetime through exclusive use of corrosion-free stainless-steel
- It adopts special heat insulation structure design so the surface temperature is far lower than the temperature in the bath to avoid personnel burns

Specifications	RE200-Pro	
performance	Temperature range	Room temp. ~180°C (water and oil bath)
	Temperature control accuracy	Water: $\pm 1^\circ\text{C}$ Oil: $\pm 3^\circ\text{C}$
	Rotation Speed	10~150rpm
	Evaporation capacity	Max.4.0L/h (water)
	Ultimate vacuum	Less 2.6hpa
function	Temperature control	Micro processor PID control
	Display	LCD (temperature/speed/clockwise and Anti-clockwise/time)
	Lift stroke	Motorized 180mm
	Safety features	Motor over-current protection, earth-leakage protection lifting overload protection, Boil-dry protection, Overheating protection
components	Evaporation flask	Round flask 20L
	Receiving flask	Round flask 10L with drain valve
	Condenser	Two-section vertical triple coil condenser, cooling surface 1.2m ²
specification	Heating bath size	$\varnothing 450 \times 240\text{mm}$
	Hose connection	Cooling/suction nozzle outer diameter 16mm, vacuum pump nozzle outer diameter 16mm
Dimension[D × W × H]		1160 × 600 × 1860mm
Voltage/Frequency		220V/50/60Hz
Power		4600w
Heating Power		4400w

RE100-Pro

Digital Rotary Evaporator

It is highly used in chemical industries, pharmaceutical industries and also higher learning institution

Features

- Digital LCD display of both rotation speed and heating temperature allows for optimal control of all distillation processes
- Automatic motor lift releases the evaporating flask to a safe position in case of power failure
- 5L heating bath with wide temperature range from room temperature to 180 °C Water/oil heating mode can be changed only through a switch
- Overheating protection temperature at 220 °C
- Boil-dry protection, automatically power off if heating without water/oil in the heating bath
- Speed range from 20 to 280rpm, and interval operation in clockwise and anticlockwise directions for drying process
- Patented condenser (cooling surface 1700cm²) with excellent cooling effect
- Ejection mechanism ensures easy removal of evaporating flask
- Patented double spring sealing ring made of PTFE provides an excellent sealing performance
- Optional glassware with explosion proof film available



Large LCD display



USB connector



Chemical resistance



Overheating protection



Compatible with all range of glassware

Specifications	RE100-Pro
Motor Type	Brushless DC motor
Speed Range	20-280rpm
Display	LCD(speed, temperature, time)
Direction of Rotation	Clockwise and counterclockwise
Heating Temperature Range	Room temp. to 180°C
Control Accuracy	water: $\pm 1^{\circ}\text{C}$ oil: $\pm 3^{\circ}\text{C}$
Heating Power	1300W
Lift stroke	Motorized 150mm
Timer	Yes
Time Setting Range	1-999min
Dimension[D × W × H]	465 × 457 × 583mm
Weight	15kg
Permissible Ambient Temperature	5-40°C
Permissible Relative Humidity	80%RH
Protection Class	IP20
USB Interface	Yes
Voltage/Frequency	100-120/200-240V, 50/60Hz
Power	1400W

RE100-S

LED Digital Rotary Evaporator

LED Digital Rotary Evaporator is a basic chemical laboratory instrument suitable for evaporation, distillation and separation of chemicals. It can be used as a multifunctional system in combination with vacuum pump, vacuum controller and low temperature circulators to provide excellent distillation solutions in many laboratory applications.

Features

- 5L heating bath with a wide temperature range (room temp.to180°C). Independent temperature control makes it can be used separately. Water/oil heating mode can be changed just through a switch
- Manual lift combined with auxiliary lift for precise positioning of the glassware
- PID control ensures high temperature accuracy at $\pm 1^{\circ}\text{C}$ (water)
- Overheating protection temperature at 220°C
- Boil-dry protection, automatically power off if heating without water/oil in the heating bath
- Speed range from 20 to 200rpm, timing interval operation in clockwise and anticlockwise directions for drying process
- Patented condenser (cooling surface 1200/1700cm² for selection), speeding up the flow rate of liquid with excellent cooling effect
- Ejection mechanism ensures easy exchange of evaporating flask
- Adjustable immersion angle
- Patented double spring sealing ring which is made of PTFE provides an excellent sealing performance
- Compatible with the entire range of RE100-Pro glassware
- Optional glassware with explosion proof film available
- High temperature warning when above 50°C



Chemical resistance



Overheating protection



Compatible with wide range of glassware



Specifications	RE100-S
Motor Type	Brushless DC motor
Speed Range	20-200rpm
Display	LED(speed, temperature, time)
Direction of Rotation	Clockwise and counterclockwise
Heating Temperature Range	Room temp. to 180°C
Control Accuracy	water: $\pm 1^{\circ}\text{C}$ oil: $\pm 3^{\circ}\text{C}$
Heating Power	1200W
Lift stroke	Manual 110mm+auxiliary 100mm
Interval Time Setting Range	1-999s
Dimension[D × W × H]	Main Unit:440 × 320 × 450mm Heating Bath:300 × 300 × 240mm
Weight	Main Unit:7kg Heating Bath:3kg
Permissible Ambient Temperature	5-40°C
Permissible Relative Humidity	80%RH
Protection Class	IP20
USB Interface	Yes
Voltage/Frequency	100-120/200-240V, 50/60Hz
Power	1245W

Vertical

Cat. No.	Glassware type	Volume	Cooling surface
18900165	Evaporating flask(NS29/32) Receiving flask(KS35/20)	1000mL	1700cm ²
18900173	Evaporating flask(NS24/40) Receiving flask(KS35/20)	1000mL	1700cm ²
18900166	(COATED)Evaporatingflask(NS29/32) Receiving flask (KS35/20)	1000mL	1700cm ²
18900174	(COATED)Evaporatingflask(NS24/40) Receiving flask (KS35/20)	1000mL	1700cm ²
18202410	Evaporating flask (NS 29/32) Receiving flask (KS 35/20)	1000mL	1200cm ²
18900476	Evaporating flask (NS 24/40) Receiving flask (KS 35/20)	1000mL	1200cm ²

Diagonal

Cat. No.	Glassware type	Volume	Cooling surface
18900163	Evaporating flask(NS29/32)Receiving flask(KS35/20)	1000mL	1700cm ²
18900171	Evaporating flask(NS24/40)Receiving flask(KS35/20)	1000mL	1700cm ²
18900164	(COATED)Evaporatingflask(NS29/32) Receiving flask (KS 35/20)	1000mL	1700cm ²
18900172	(COATED)Evaporatingflask(NS24/40) Receiving flask (KS35/20)	1000mL	1700cm ²

Heating Bath

Cat. No.	Description	Volume
18900201	Heating bath for Rotary Evaporator RE100-Pro, 220V	5L
18900202	Heating bath for Rotary Evaporator RE100-Pro, 110V	5L
6033100210	LED heating bath, 100V-120/200-240V,50/60HZ	5L

Heating Bath Lid

Cat. No.	Description
18900547	heating Bath lid for RE100-S, improve distillation efficiency & ensure personal safety from liquid splash

Glassware



Evaporating flask

Cat. No.	Volume	Size
18300116	50mL	NS 29/32
18300117	100mL	NS 29/32
18300118	250mL	NS 29/32
18300119	500mL	NS 29/32
18300120	1000mL	NS 29/32
18300121	2000mL	NS 29/32
18300655	50mL	NS24/40
18300201	100mL	NS 24/40
18300202	250mL	NS 24/40
18300203	500mL	NS 24/40
18300204	1000mL	NS 24/40
18300205	2000mL	NS 24/40
18900563	20L	RE200-Pro



Foam brake

Cat. No.	Volume	Size
18300093	250mL	NS 29/32
18300207	250mL	NS 24/40



Evaporation tube

Cat. No.	Volume	Size
18100998	/	NS 29/32
18300206	/	NS 24/40



Receiving flask

Cat. No.	Volume	Size
18300107	100mL	KS 35/20
18300108	250mL	KS 35/20
18300109	500mL	KS 35/20
18300110	1000mL	KS 35/20
18300111	2000mL	KS 35/20
18900564	10L	RE200-Pro



Distilling spider with 5 flasks(without flask)

Cat. No.	Volume	Size
18900194	/	NS 29/32, NS24/29
18900177	/	NS 29/42, NS24/40



Connector

Cat. No.	Volume	Size
18300094	/	NS 29/32, NS24/29
18300095	/	NS 29/32, NS19/26
18300096	/	NS 29/32, NS14/23
18300199	/	NS24/40, NS19/22
18300200	/	NS 24/40, NS14/20
18900193	/	NS 24/40, NS 29/42

Optional Add-ons

Distillation System Connection (For RE100-Pro&RE100-S)



C410 Chemistry-design diaphragm pump

Specifications

Maximum Vacuum:13mbar
Work Mode: Continuous Operation
Nozzle Size:8mm, Power: 95W
Motor speed:1450rpm
Flow Rate:

mbar	1000	880	750	600	480	280
L/min	25	22	20	12	7.5	5

Noise:50dB

Seals and other accessories

Cat. No.	Description	
18202027	PTFE vacuum seal	
18900362	Ultra resistant FFKM seal for applications with highly abrasive solutions	
18900190	Evaporation flask clip(red) CS002440	
18900188	Evaporation flask clip(green) CS002942	

Regulator /Moisture

Cat. No.	Description	
18900186	Material: PVDF, PTFE, ABS, Borosilicate Glass, Stainless Steel	

VC100

Vacuum Controller Reliable, robust, efficient and extremely durable

The vacuum controller serves as a device for labs to display, adjust and control the degree of vacuum in vacuum systems. It generally constitutes the vacuum control system of rotary evaporator along with vacuum pump, which enables repeatable distillation experiment and recovery of many kinds of solvents in an efficient and automatic manner.



Features

- Wide range of measurement and control, 1–1,000mbar
- Two control modes available Single-point control and programmed control
- Stores up to 5 programs, each containing up to 5 steps of programming control
- Large TFT touch screen display control provides easy operation
- All parts in contact with vapor or liquid are made of PTFE, ceramics or other high-performance materials which effectively resists corrosion caused by organic solvents, water, acid and alkali
- Built-in vent valve can feed inert gas into system equipment
- One-click decompression allows easy installation and dismantling of vacuum system
- Can be connected with pump power control for temporary shutdown of pump power supply after reaching stable degree of vacuum for energy conservation and environmental protection.
- Can also be operated in the normally open status of pump
- Reliable and functional design to fulfill essential needs of precise vacuum regulation

Specifications	VC100
Vacuum setting range	1–1000mbar
Vacuum measurement range	1–1000mbar
Control mode	Single-point control mode, Programmed control mode
Control program	Can store up to 5 programs, each containing 5-step control (capable to set the degree of vacuum and time)
Setting method	Touch screen setting
Display	5" TFT
Sensor overload pressure	1,500mbar
Connector diameter	8mm
Materials in contact with vapor	PTFE, PP, silicone and ceramics
Power	600W
Compatible conditions with vacuum pump	Power of 50Hz vacuum pump ≤400W Power of 60Hz vacuum pump ≤500W
Overall dimensionsWxDxH	189x207x193mm
Weight	4.0kg
Voltage,Frequency	110 240V,50Hz/60Hz
Operating environment	10℃ ~40℃ ≤80%RH



Centrifuges

Centrifuge is used to separate liquid and solid particles or components in a liquid mixture. centrifuge series includes palm micro centrifuges, high-speed centrifuges (refrigerated and non-refrigerated), hematocrit centrifuges and low speed centrifuges.

List of models:

Series	Image	Model	Display	Max. speed(RCF)	Rotor Capacity	Page
palm micro centrifuges		D1008	-	7000rpm (2680 × g)	8x0.2/0.5/1.5/2mL 0.2 mL x 32 PCR strips, 0.2 mL x 4 PCR 8 strips	p.85
High speed Mini Centrifuge		D2012Plus	LCD	15000rpm (15100 × g)	12 × 0.2/0.5/1.5/2mL	p.87
High speed Refrigerated Micro Centrifuge		D1524R	LCD	15000rpm (21380 × g)	24 × 1.5/2mL, 36 × 0.5mL, 4 × PCR eight strips, 12 × 5mL (cone), 18 × 5mL (round),	p.88
High speed Micro Centrifuge		D3024	LCD	15000rpm (21380 × g)		p.89
hematocrit centrifuge		DM1424	LCD	12000 rpm (13680 × g)	24 × capillary tubes	p.92
		DM1224	LCD	12000 rpm (13680 × g)	24 × capillary tubes	p.92
DM0412 Series		DM0412	LCD	4500rpm (2490 × g)	8x15mL 12x10mL/7mL 1.5-5mL	p.94
DM0424 & DM0408 Series		DM0424	LCD	4000rpm (2500 × g)	4x50mL 24x15mL	p.96
		DM0408	LED	4000rpm (1900 × g)	8x15mL 12x10mL/7mL 1.5-5mL	p.96
DM0506 Series		DM0506	LCD	5000rpm (2600 × g)	6x15mL/10mL /7mL/1.5-5mL	p.98
DM0636 Series		DM0636	LCD	6000rpm (4020 × g)	4x100mL 36x3-7mL	p.99

D1008

Palm Micro Centrifuge

Applications

This centrifuges is ideal for quick spins, microfiltration of samples, cell separations and many other routine laboratory procedures.

Features

- Easy to operate with dual start/stop function -
Close lid for a spin speed up to 7000 rpm
- Smooth and quiet operation (noise level $\leq 45\text{dB}$)
- Accelerates and brakes in seconds
- Safe, durable and robust rotor with clamp locking design
- Compatible with 2mLx8 and PCR8x4 rotors
- Quick-change rotor without any tool



Quiet operation



Vibration free



Specifications	D1008
Max. Speed	7000rpm
Max. RCF	2680 × g
Rotor Capacity	0.2/0.5/1.5/2.0mL × 8; 0.2mL × 32 PCR strips or 0.2mL × 4 PCR 8 strips
Run Time	Continuous operation
Driving Motor	DC motor
Power Requirements	AC100–240V/50Hz/60Hz 20W
Noise Level	$\leq 45\text{dB}$
Dimension [D × W × H]	160x170x122mm
Weight	0.5kg
Certification	CE cTÜVus FCC MCA

Available rotors



A04-RCR8

Cat. No.19200810

Max. speed:7000rpm

Max. RCF:2680 × g

Rotor capacity: 0.2 mL × 32 PCR strips,

0.2 mL × 4 PCR 8 strips

Rotor material: High strength plastic



A8-2P

Cat. No.19400015

Max. speed:7000rpm

Max. RCF:2680 × g

Rotor capacity:2mL/1.5mL × 8, 0.2mL × 8, 0.5mL × 8

Rotor material:High strength plastic

Available rotor adapters:SA02P2, SA05P2



Available adapters

SA02P2

Cat. No.19400029

0.2mL rotor adapter

Used with A08-2 rotor

8pcs/pk



SA05P2

Cat. No.19400026

0.5mL rotor adapter

Used with A08-2 rotor

8pcs/pk



D2012 Plus

High Speed Mini Centrifuge

Features

- Pulse operation for fast and convenient quick spins
- Speed up to 15000rpm (15100 × g)
- Brushless DC motor drive quickly to the target speed
- Smooth and quiet operation (noise ≤54dB)
- Automatic lid-lock and over-speed detection
- Passed rigorous explosion-proof test, certified with CE, cTÜVus, FCC

Applications

Microcentrifuges are mainly used in molecular biology laboratories for Plasmid extraction; Nucleic acid purification; Pre-sequencing processing and other applications including extracting of DNA/RNA samples, sedimentation biological components, biochemical and chemical analyses of microsamples.



Brushless DC motor



LCD display

Available rotors



A12-2P

Cat.NO.19400010

for D2012plus only

Max. speed: 15000rpm

Max. RCF: 15100 × g

Rotor capacity:

2mL/1.5mL × 12, 0.2mL × 12, 0.5mL × 12

Rotor material: High strength plastic

Available rotor adapters: A02P2, A05P2



Available adapters

A02P2

Cat. No.19500001

0.2mL rotor adapter

Used with A12-2, A12-2P,

AS24-2 and A24-2P

rotors 24 pcs/pk



A05P2

Cat. No.19500002

0.5mL rotor adapter

Used with A12-2, A12-2P,

AS24-2 and A24-2P

rotors 24 pcs/pk



Specifications	D2012 plus
Max. Speed	15000rpm(500–15000rpm), increment: 100rpm
Max. RCF	15100 × g, increment: 100 × g
Speed Accuracy	± 20rpm
Rotor Capacity	0.2mL/0.5mL/1.5mL/2mL × 12
Run Time	30sec–99min/Continuous
Acceleration/Braking time	11s ↑ /9s ↓
Driving Motor	Brushless DC motor
Safety Devices	Door interlock, Over-speed detection, Over-temperature detection, Automatic internal diagnosis
Power Requirements	Single-phase, AC100V–240V, 50Hz/60Hz, 3A100W
Noise level	≤54dB
Dimension[D × W × H]	255 × 245 × 140mm
Weight	6kg
Certification	EMC CE FCC ICES cTÜVus CB
Other functions	Speed/RCF switch, Short-time run function, sound-alert function

D1524R

High-speed Refrigerated Micro Centrifuge



Applications

Ideal for centrifugation of temperature sensitive samples, such as live cells, animals or proteins. It allows them to be used in a multitude of applications, including pelleting of DNA and RNA samples, pelleting of PCR amplified nucleic acids, separation of antibody and protein precipitates, performing enzymatic tests, removing cell debris from cell homogenates, and achieving bacterial and yeast cell fractionation.

Features

- Electronic Magnetic door locking system - the lid can be closed with one hand soft touch
- Precooling, the compressor automatically starts cooling as long as the set temperature is lower than the ambient temperature
- Sound indicator at the end of running.
- Temperature range -20°C to 40°C
- Short pre-cooling time of only 7 minutes from room temperature to 4°C
- Up to 9 program storage capacity
- 3-layer sealed rotors ensure safe centrifugation
- High-strength aluminum alloy rotor can be fully autoclavable at 121°C
- Rotor imbalance detection alarm
- Adjustable acceleration/deceleration at 9 levels allows gentle braking at low speed for better separation
- Five rotors with 0.2mL, 0.5mL, 1.5mL, 2mL and 5mL centrifuge tubes/ PCR tubes capacity
- An external condensation tank prevents water accumulation within centrifuge chamber



Specifications	D1524R
Max. Speed	15,000rpm (200-15,000rpm) in 100rpm increments.
Max. RCF	$21,380 \times g$, step: $10 \times g$
Capacity	1.5/2mL $\times 24$, 0.5mL $\times 36$, PCR8 $\times 4$, 5mL $\times 12$, 5mL $\times 18$.
Temperature setting	-20°C - 40°C
Run Time	30s-99 min; HOLD (continuous running)
Acceleration and deceleration time	25s \uparrow 25s \downarrow
Motor Type	Brushless DC motor
Safety Performance	Dual door lock, over-speed detection, over-temperature detection with Internal diagnosis system.
Power Requirements	Single-phase, 200V-240V, 50Hz/60Hz, 500W/100V-120V, 50Hz/60Hz, 500W
Noise	$\leq 56\text{dB}$
Dimensions[WxDxH]	332 \times 553 \times 283mm
Weight	30kg
Certification	CE cTUVus FCC
Other functions	Rotation speed/RCF switchover, inching operation, running process indicator, sound alert. Adjustable acceleration/deceleration at 9 levels program storage capacity.

D3024

High Speed Micro Centrifuge



Features

- Patent special double cooling air design ensures fast cooling of the rotor and low energy consumption
- 3-layer sealed rotors ensure safe centrifugation
- Brushless motor drive, maintenance free
- Safety features include door interlock; excessive speed and temperature detection; automatic self-diagnostics
- Outstanding aluminum alloy rotors fully autoclavable at 121°C temperature and high pressure disinfection
- Five rotors are optional complete with 24 places 1.5/2.0mL tubes, 5.0mL, 0.2mL and 0.5mL tubes with adapters

Applications

Suitable for numerous biological, chemistry, clinical and research applications including molecular biology, clinical chemistry labs, wide variety of microbiology applications, such as DNA, RNA or protein isolation and many more.

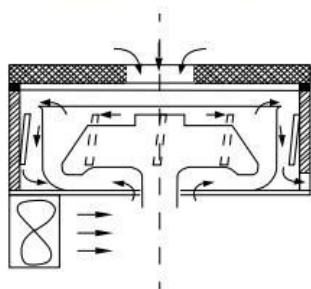


Brushless DC motor



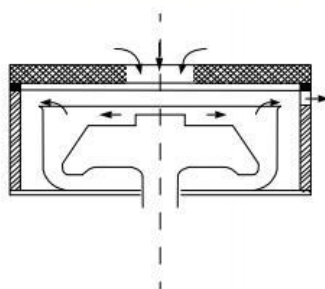
Wide range of rotors

Effective Ventilation System



Proprietary design of dual path ventilation enforcing air cooling from both the upper and lower side for the rotor.

Conventional design



Limited ventilation on the upper side of the rotor

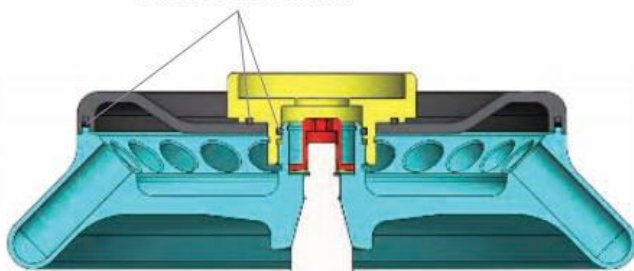


Rotors are manufactured from military-industrialgrade aluminum alloy with high mechanical strength for precise running and safety (excludes D2012 plus rotor)

- Every rotor can reach a maximum Speed of 15000rpm
- Rotors are seated on a tapered shaft, concentric and self-aligning, perfect to achieve running stability at high speeds
- D3024 & D1524R with three-layer sealed rotors/ anti- sample overflow prevents accidental leakage
- D3024 & D3024R rotors have passed MCA test according to IEC/EN61010-2-20, including mechanical safety and bio-safety tests
- Powerful cooling system minimizes rotor heating. D3024 rotors maintain at 10°C and D2012 rotors less than 8°C after running an hour

Seals within the aluminum alloy rotor

Three rubber seals fitted to achieve bio-safe condition



Rotor Features

Fully autoclavable

High strength aluminum alloy rotors are fully autoclavable, withstanding steam sterilizing at 121°C for 20 minutes

Three-layer seal

D3024 & D1524R rotors are designed to prevent sample leakage. Each and every rotor is hermetically sealed by three rubber seals.

Mechanical safety

Centrifuges confirm to MCA standard

IEC/EN61010-2-20, causing disruption by partially cutting and overloading rotor assembly, and guarantees that no part shall be detached to cause danger to person or the environment.

Specifications	D3024
Max. Speed	15000rpm(200–15000rpm), increment:10rpm
Max. RCF	21380 × g, increment:10 × g
Speed Accuracy	±20 rpm
Rotor Capacity	5mL × 18, 5mL culture tubex12 0.2mL/0.5mL/1.5mL/ 2mL × 24, 0.5mL × 36,PCR8 × 4
Run Time	30sec–99min/Continuous
Acceleration/Braking time [Sec]	25s ↑ 25s ↓
Motor	Brushless DC motor
Safety Devices	Dual door interlock, Over-speed detection, Automatic internal diagnosis
Power Requirements	Single-phase, AC200V–400V, 50Hz/60Hz, 5A, AC100V–120V, 50Hz/60Hz, 8A 200W
Noise Level	≤64dB
Dimension[W × D × H]	280 × 364 × 266mm
Weight	12kg
Certification	CE cTUVus FCC MCA
Other functions	Speed/RCF switch; Short-time run function; sound-alert function

Available rotors

AS24-2

Cat. No.19400069

for D3024 & D1524R

Max. speed: 15000rpm

Max. RCF: 21380 × g

Rotor capacity:

2mL/1.5mL × 24/0.2mL × 24/0.5mL × 24

Rotor material: Aluminum alloy

Biosealing: Yes

Available rotor adapters: A02P2, A05P2



AS18-5 (round bottom)

Cat. No.19400073

for D3024 & D1524R

Max. speed :15000rpm

Max. RCF:21380 × g

Rotor capacity:5mL × 18 (Round bottom)

Rotor material:Aluminum alloy

Biosealing:Yes



AS12-5V (cone bottom)

Cat. No.19400070

for D3024 & D1524R

Max. speed: 15000rpm

Max. RCF: 21380 × g

Rotor capacity: 5mL × 12(Cone bottom)

Rotor material: Aluminum alloy

Biosealing: Yes



Available adapters

A02P2

Cat. No.19500001

0.2mL rotor adapter

Used with A12-2, A12-2P, AS24-2 and A24-2P rotors 24pcs/pk



AS36-05

Cat. No.19400071

for D3024 & D1524R

Max. speed: 15000rpm

Max. RCF: 21380 × g

Rotor capacity: 0.5mL × 36, 0.2mL × 36

Rotor material: Aluminum alloy

Biosealing: Yes

Available rotor adapters: A02P05



A05P2

Cat. No.19500002

0.5mL rotor adapter

Used with A12-2, A12-2P, AS24-2 and A24-2P rotors 24pcs/pk



AS4-PCR8

Cat. No.19400072

for D3024 & D1524R

Max. speed: 15000rpm

Max. RCF: 21380 × g

Rotor capacity:0.2mL/PCR8 × 4

Rotor material: Aluminum alloy

Biosealing: Yes



A02P05

Cat. No.19500003

0.2mL rotor adapter

Used with AS36-05 rotor 36pcs/pk



DM1424

Hematocrit Centrifuge

Features

- Speed range of 200–12000 rpm Precise and Independent control of speed and time
- Easy operation with intuitive menu and LCD display
- Maintenance-free brushless DC motor
- Pulse operation for fast and convenient quick spins
- Advance features include speed/RCF switch; short-time run function; audible alert function
- Safety features include door interlock, overspeed detector; over-temperature detector; automatic internal diagnosis and automatic rotor identification



DM1224

Economical Hematocrit Centrifuge

Features

- Speed range of 500–12000 rpm
- Precise control of speed and time
- Maintenance-free brushless DC motors
- Door interlock

Applications

Hematocrit centrifuges are used for determination of erythrocyte fractions in blood as well as micro solution separations. It provides hematocrit values (HCT) for testing in biochemistry, immunity, genetics, blood separation and for general clinical tests for diagnostic purposes and also for dope tests. They have special applications for the photometric determination of bilirubin content in neonate blood samples. They are suitable for extraction of DNA and RNA. Veterinary clinics and Vitamins testing for Infants.



Specifications	DM1424	DM1224
Speed Range	200–12000rpm, increment: 10rpm	500–12000rpm, increment: 100rpm
Max. RCF	18620 × g	13680 × g
Speed Accuracy	± 20	± 100
Run Time	30sec–99min/Continuous	10sec–99min/Continuous
Motor	Brushless DC motor	Brushless DC motor
Display	LCD	LCD
Safety Devices	Door interlock, Overspeed detector; Automatic internal diagnosis, Automatic rotor identification	Door interlock
Acceleration/Braking time	30s ↑ 30s ↓	40s ↑ 40s ↓
Power Requirements	Single-phase, 200V–240V, 50Hz/60Hz, 5A; 100V–120V, 50Hz/60Hz, 5A 160W	Single-phase, 200V–240V, 50Hz/60Hz, 5A; 380W
Dimension[WxDxH]	280 × 364 × 274mm	280 × 364 × 213mm
Weight	10.5kg	8.5Kg
Certification	CE cTUVus FCC MCA	–
Advanced features	Speed/RCF switch; Short-time run function; sound-alert function	Speed/RCF switch; Short-time run function; sound-alert function



Available rotors

AC24	Cat. No.19400047
DM1424 & DM1224 Max. speed: 12000rpm Max. RCF: 13680 × g Rotor capacity: capillary tubes x24 Rotor material: High strength aluminum	



DM0412

Low Speed Centrifuge

Features

- Easy operation with intuitive menu and easy-to-read display
- Speed can be set in RPM/RCF
- Maintenance-free brushless DC motor
- Quick spin function with press and hold pulse key
- Lid with electric lock and automatic release function
- Automatic lid-lock release after running
- Braking time 2 steps adjustable only for A6-50P rotor
- High strength plastic rotor gives excellent balance to guarantee stable working
- Dual protection housing particularly benefit for safe running
- Gentle braking at low speeds with efficient separation
- CE marked, cTÜVus, and passed explosion-proof test



Applications

DM0412 is ideal for separation of whole blood components, such as serum, plasma, buffy coat, red blood cells, as well as other bodily fluids.




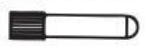




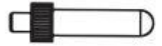

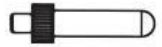

Specifications	DM0412
Speed Range	300-4500rpm, increment: 100rpm
Max. RCF	2490 × g
Speed accuracy	± 20rpm
Rotor type	A12-10P, A6-50P
Run Time	30sec-99min HOLD (Continuous operation)
Motor	Brushless DC motor
Display	LCD
Safety Devices	Door interlock, Overspeed detector; Automatic internal diagnosis
Acceleration/Braking time	A12-10P: 20s ↑ 13s ↓ A6-50P: 20s ↑ 20 s /90 s ↓
Power Requirements	Single-phase, 100V-240V, 50Hz/60Hz, 3A70W
Dimension[WxDxH]	354 × 304 × 215mm
Weight	6kg
Certification	CE cTÜVus
Advanced features	Speed/RCF switch; Short-time run function; sound-alert function

Available rotors

A12-10P (round bottom)	Cat. No.19400068
for DM0412 & DM0424 & DM0408 Max. speed: 4500rpm Max. RCF: 2490 × g Rotor capacity: 8x15mL, 12x10mL Rotor material: High strength plastic	
	

A6-50P (round bottom)	Cat. No.19100197
For DM0412(A6-50P) Max. speed: 4000rpm Max. RCF: 1800 × g Rotor capacity: 50mL × 6 or 15mL × 6 Rotor material: High strength plastic	
	

A12-10P and A6-50P are not interchangeable

Available tubes	Tube quantity	Dimension (ØLxmm)	Adapters	Maximum speed(rpm)	Radius (cm)	Maximum RCF(×g)
15mL con 	8	17 × 120		4500	11	2490
1.5–5mL vacu 	12	13 × 75	A10P15 & Plug 	4500	9.8	2218
4–7mL vacu 	12	13 × 100	A10P15 	4500	11	2490
		16 × 75			9.8	2218
8.5–10mL vacu 	12	16 × 107		4500	11	2490
2.7–3mL(EU) collection tube 	12	11 × 66	A10P15 & Plug 	4500	9.8	2218
7.5–8.2mL(EU) collection tube 	12	15 × 92	A10P15 	4500	11	2490

DM0424&DM0408

Multi-Purpose low Speed Centrifuge

Features

- Quiet, compact, and convenient with LCD display
- Maximum up to 4000rpm Speed can be set in RPM/RCF, with 3 customizable routine programs (Blood, Urine & Faecal)
- 3 acceleration level & 4 level deceleration
- Maximum capacity 50mL × 4, Accommodating different sizes of blood collection tubes and centrifuge tubes suitable for swing out rotor and angle rotor
- Automatic internal diagnosis and self-detection
- Maintenance-free brushless DC motor

Applications

Multi-purpose low speed centrifuge are versatile and can be used in applications from clinical to biochemical for qualitative analysis of serum, plasma, blood, and urine.



Specifications	DM0424	DM0408
Speed range	500–4000rpm increment: 100rpm	300–4000rpm increment: 100rpm
Max. RCF	2500 × g	1900 × g
Speed accuracy	± 100rpm	± 100rpm
Rotor	Swing6 × 15mL Swing4 × 50mL Angle 24 × 15 mL, Angle 12 × 10mL/8 × 15mL	Angel 8 × 15mL.(Default), Angel 12 × 10mL
Run time	1–99min, HOLD	1–99min, HOLD
Motor	Brushless DC motor	Brushless DC motor
Display	LCD	LED
Program	Blood: 3200rpm, 10min. Urine: 1800rpm, 5min. Faecal: 1300rpm, 10min.	Blood: 3200rpm, 10min Urine: 1800rpm, 5min Faecal: 1300rpm, 10min
Safety Device	Automatic internal diagnosis	Automatic internal diagnosis
Acceleration/deceleration	3 ↑ 4 ↓ steps	25s ↑ 35s ↓
Power Requirements	Single phase, 100V–240V, 50Hz/60Hz	Single phase, 100V–240V, 50Hz/60Hz
Dimension(W × D × H)	364 × 440 × 268mm	286 × 367 × 227mm
Weight	14.5kg	9.2kg
Certification	CE cTUVus	CE cTUVus
Noise	≤62dB(A)	≤60dB(A)

Available rotors

S6-15

Cat. No.19400082

for DM0424

Max. speed: 4000rpm
Rotor capacity: 15mL × 6
Rotor material: Aluminum alloy
Default adaptor: A15P22, A5P17



A12-10P

Cat. No.19200348

for DM0424/DM0408 DM0412

Max. speed : 4000rpm
Rotor capacity: 15mL × 8, 10mL × 12
Rotor material: High strength plastic
Default adaptor : A2P17



S4-50

Cat. No.19400100

for DM0424

Max. Speed: 4000rpm
Rotor capacity: 50mL × 4
Rotor material: Aluminum alloy
Default adaptor: A15P30, A5P17



Available adapters

A15P30

Cat. No.19500024

50mL change 15mL adapter,
Adapted to 17 × 120mm centrifuge
tube, 13/16 × 100mm blood
collection tube 4pcs/pk,



A24-15P

Cat. No.19400101

for DM0424

Max. speed: 4000rpm
Rotor capacity: 15mL × 24
Rotor material: High strength plastic
Default adaptor: A15P22, A5P17



A15P22

Cat. No.19500021

15mL adapter for 17 × 120mm
centrifuge tube, 13/16 × 100mm
blood collection tube 24 pcs/pk,
for S6-15, A24-15P, A8-15P



A5P17

Cat. No.19500022

5mL adapter, Adapted to 13 × 75mm
blood collection tube 24 pcs/pk,
for S4-50, S6-15, A24-15P



A8-15P

Cat. No.19400084

for DM0424/DM0408

Max. Speed: 4000rpm
Rotor capacity: 15mL × 8
Rotor material: High strength plastic
Default adaptor: A15P22



A2P17(Optional)

Cat. No.19500023

1.5/2mL Cryogenic Vials/ centrifuge
tube adapter, 24 pcs/pk, for S4-50,
S6-15, A24-15P, A12-10P, A6-50P



DM0506

Low-speed Centrifuge



Available adapters

A5P17

Cat. No.19500022

5mL adapter, Adapted to 13 × 75mm blood collection tube



A2P17

Cat. No.19500023

1.5/2mL Cryogenic Vials/ centrifuge tube adapter



Features

- Speed range from 300–5000 rpm
- Set and displayed by RPM or G-force
- Two programs P1/P2, easy to start the procedure by one key
- Two deceleration speeds setting to meet different requirements
- Easy-to-read LCD display and sound alert
- Automatic lid-lock release after running
- Maintenance-free brushless DC motor

Applications

DM0506 is widely used in the medical industry. Ideal for separation of serum, plasma, urine, fecal samples in biochemical & medical laboratories. It is an essential equipment of every clinical laboratory, blood bank, medical college and medical research institute.

Specifications	DM0506
Speed Range	300–5000rpm, increment:10rpm
Max. RCF	2600xg, increment: 10g
Speed accuracy	± 20rpm
Rotor type	6x15mL/10mL/7mL/1.5–5mL
Run Time	30sec–99min, HD (continuous running)
Display	LCD
Preloaded Program	2
Acceleration/Deceleration	1 ↑ 2 ↓
Safety Devices	Door interlock, Overspeed detector, Automatic internal diagnosis
Motor	Brushless DC motor
Power Requirements	Single-phase, 100V–240V, 50Hz/60Hz, 70W
Dimension[WxDxH]	300X240X180mm
Weight	5.2kg
Certification	CE cTUVus
Advanced features	Speed/RCF switch; sound-alert function

DM0636

Multi-Purpose Low-speed Centrifuge

Features

- Speed from 300–6000 rpm
- Maximum capacity : 100 mLx4
- 9 Acceleration/10 Brake speed settings to ensure optimal separation
- A wide range of rotors optional(fixed angle and swing-out rotors)
- Automatic rotor identification
- Pulse Key for quick spin
- 9 procedures stored in memory makes the operation much simplified
- Maintenance-free brushless DC motor
- Suitable for tubes with caps, blood collection or urine tubes
- Comprehensive and versatile range of accessories



Specifications	DM0636
Speed Range	300–6000rpm increment:10rpm
Max. RCF	4020xg
Speed accuracy	± 20rpm
Max. Capacity	100mLx4
Run Time	30sec–99mins/continuous
Motor	Brushless DC motor
Display	LCD
Program Memory	9
Safety Devices	Door Imbalance protection Over speed & Over temperature detection
Acceleration/Deceleration	9 ↑ /10 ↓ steps
Power Requirements	660W; Single-phase AC220V~240V, 50Hz/60Hz, 6.3A; AC110V~120V, 50Hz/60Hz, 10A
Noise Level	≤65dB
Dimension[WxDxH]	445x579x269mm
Weight	36kg
Certification	CE
Advanced features	speed/rcf switch; Rotor identification

Applications

DM0636 is ideal for chemistry, cytology, research laboratories, industrial laboratories and other. This is suitable for tubes with caps, blood collection or urine tubes. Swing-out rotors and adapters can be compatible with standard tubes up to 100mL at low speed.



SE4-100
(Standard accessory)

Cat. No.19400041

for DM0636

Max. speed: 4000rpm

Max. RCF: $2950 \times g$

Rotor material: stainless steel body and adapter

[illegible]

Available rotors

S2-MP

Cat. No.19400062

DM0636

Max. speed: 4000rpm
Max. RCF: 2200 × g
Rotor capacity: Micro-plates
384-PCR/96-PCR/Elisa
plates × 8pcs; Deep well plates × 4pcs
Rotor material: stainless steel body



AS6-50V (cone bottom)

Cat. No.19400038

DM0636

Max. speed: 6000rpm
Max. RCF: 4020 × g
Rotor capacity: 50mL × 6 or 15mL × 6
Rotor material: aluminum
Biosealing: Yes



AS12-PCR8

Cat. No.19400036

DM0636

Max. speed: 6000rpm
Max. RCF: 4020 × g
Rotor capacity: PCR 8 trips × 12
Rotor material: aluminum
Biosealing: Yes



AS18-5V (cone bottom)

Cat. No.19400035

DM0636

Max. speed: 6000rpm
Max. RCF: 4020 × g
Rotor capacity: 5mL × 18
Rotor material: stainless steel body
and aluminum buckets
Biosealing: Yes



AS30-2

Cat. No.19400034

DM0636

Max. speed: 6000rpm
Max. RCF: 4020 × g
Rotor capacity: 2mL × 30
Rotor material: aluminum
Biosealing: Yes



A8-50 (round bottom)

Cat. No.19400039

DM0636

Max. speed: 5000rpm
Max. RCF: 3960xg
Rotor capacity: 50mL × 8 or
15mLx16
Rotor material: aluminum body
and stainless steel adapter
Default adapters: SE100P31x8,SE100P17x16



AS60-2

Cat. No.19400037

DM0636

Max. speed: 6000rpm
Max. RCF: 4020 × g
Rotor capacity: 2mL × 60
Rotor material: aluminum
Biosealing: Yes



A30-15 (round bottom)

Cat. No.19400040


DM0636

Max. speed: 4500rpm
Max. RCF: 3210xg
Rotor capacity: 15mL × 30
Rotor material: aluminum body and
stainless steel
adapter





Mixers range can be divided into different series as per mixing speed, working mode, load capacity etc:

Series	Image	Model	Speed Range	Working mode	Capacity	Page
Vortex Mixer		MX-S	0~3000rpm	Orbital (touch + continuous modes)	-	p.105
		MX-F	3000rpm (fixed)	Orbital (touch + continuous modes)	-	p.106
		MX-E	3000rpm (fixed)	Orbital (touch mode)	-	p.107
Cell disruptor		MX-C	0~3000rpm	Orbital (touch + continuous modes)	8x2mL	p.109
Microplate Mixer		MX-M	0~1500rpm	Orbital (continuous mode)	0.5Kg	p.109
Disk Rotator		MX-RD-Pro	10~70rpm	360° rolling (timer + continuous)	60x1.5mL, 16x15mL, 8x50mL, (available for 3 layers)	p.112
Rotisserie Rotator		MX-RL-Pro	10~70rpm	360° rolling (timer + continuous)	48x1.5mL, 24x15mL, 24x50mL	p.113
Disk Rotator		MX-RD-E	0~80rpm	360° rolling (continuous)	48x2mL, 16x15mL, 8x50mL	p.115
Rotisserie Rotator		MX-RL-E	0~80rpm	360° rolling (continuous)	32x2mL, 20x15mL, 16x50mL	p.116
Rocking Rotator		SK-R30S-E	0~30rpm	30 ± 3° rocking (continuous)	10x10mL, 4x50mL	p.117
		SK-R30L-E	0~30rpm	30 ± 3° rocking (continuous)	16x10mL 6x50mL	p.117
		SK-R30D-E	0~30rpm	40 ± 3° rocking (continuous)	32x10mL, 12x50mL	p.117
Roller Mixer		MX-T6-Pro	0~70rpm	360° rocking&rolling (timer + continuous)	4Kg	p.118
		MX-T6-S	0~70rpm	360° rocking&rolling (continuous)	4Kg	p.118

Shaker series can be divided to different types as per different motion models:

Series	Image	Model	Plate Size	Display	Speed Range	Max. Load Capacity	Page
Orbital Shaker		SK-O330-Pro	32x32cm	LCD	100-500rpm	7.5Kg	p.119
		SK-O180-Pro	25x24,5cm	LCD	100-800rpm	2.5Kg	p.119
		SK-O330-M	33,5x33,5cm	LCD	70-400rpm	3Kg	p.120
		SK-O180-S	26,8x26,8cm	LED	40-200rpm	3.1Kg	p.120
Linear Shaker		SK-L330-Pro	32x32cm	LCD	100-350rpm	7.5Kg	p.121
		SK-L180-Pro	25x24,5cm	LCD	100-350rpm	2.5Kg	p.121
Rocking Shaker		SK-R330-Pro	30x28,5cm	LCD	10-70rpm	10Kg	p.122
3D Shaker		SK-D3309-Pro	30x28,5cm	LCD	10-70rpm	5Kg	p.123

MX-S

Variable speed Vortex Mixer

Features

- Variable speed of 0 to 3,000rpm for gentle shaking to rapid mixing of samples
- Touch or continuous operation mode
- Includes a standard top head for mixing a single test tube or other small vessel up to 30mm in diameter
- Electronic speed control maintains constant speed even during changes in load
- Steel base with specially designed vacuum suction feet provides stability and dampens vibration
- Robust aluminum-cast construction



VT1.1 Standard top(Default) Cat. No.18900034

for <Ø30mm tubes and small vessels



Specifications	MX-S (Adjustable speed)
Voltage,Frequency	100–120V/200–240V,50/60Hz
Power	60W
Mixing motion	Orbital
Orbital diameter	4mm
Motor type	Shaded pole motor
Motor rating input	58W
Motor rating output	10W
Speed range	0–3000rpm
Speed display	Scale
Run type	Touch operation/Continuous
Dimension[W × H × D]	127 × 130 × 160mm
Weight	2.0kg
Permissible ambient temperature	5–40°C
Permissible relative humidity	80%RH
Protection class	IP20

MX-F

Fixed speed Vortex Mixer

Applications

Vortex mixers are ideal for mixing liquid components in tubes, resuspension of cells, using an eccentric mechanism. They are widely used in clinical labs performing virus diagnostic tests and in biological & chemical analysis applications.

It is perfect for mixing high-viscosity materials, such as waxes and slurries; to mix battery slurries, paints, pharmaceuticals and more.



Wide range of accessories

VT1.1 Standard top(Default) Cat. No.18900034

for <Ø30mm tubes and small vessels



Specifications	MX-F (Fixed speed)
Voltage,Frequency	100–120V/200–240V,50/60Hz
Power	60W
Mixing motion	Orbital
Orbital diameter	4mm
Motor type	Shaded pole motor
Motor rating input	58W
Motor rating output	10W
Speed range	3000rpm
Speed display	–
Run type	Touch operation/Continuous
Dimension[W × H × D]	127 × 130 × 160mm
Weight	2.0kg
Permissible ambient temperature	5–40°C
Permissible relative humidity	80%RH
Protection class	IP20

MX-E

Economic Vortex Mixer



Features

- Compact , portable and fits nicely on bench-top (erase desktops and table tops)
- Touch operation, Fixed speed of 3,000rpm for rapid mixing of samples
- Powerful and efficient 12V DC brushless motor is smooth operation and has long life
- Foot pad design secures the mixer in place and does not wobble during operation

Applications

Used to rapidly mix small samples of liquids for lab researches or other works like to mix Nail Polish, Gel Polish, Eyelash Adhesives acrylic paint, tattoo ink and so on.

Specifications	MX-E
Voltage	100-240V
Frequency	50/60Hz
Power	12W
Mixing motion	Orbital
Revolving diameter	4.8mm
Motor rating output	10W
Rotational speed	3000rpm
Operating mode	Touch Operation
External dimension	133X133X80mm
Dimension of packing box	250X185X130mm
Weight	0.6kg
Permissible ambient temperature	5-40°C
Permissible relative humidity	≤80%RH
Protection class	IP21



VT1.2 Tube holding rod Cat. No.18900044

used with tube adapters

**VT1.3 Universal top plate** Cat. No.18900035

Ø 100mm

**VT1.3.1 tube adapter** Cat. No.18900020

for 48 test tubes, Ø6mm (1mL)

**VT1.3.2 tube adapter** Cat. No.18900021

for 15 test tubes, Ø10mm (1.5-2mL)

**VT1.3.3 tube adapter** Cat. No.18900022

for 16 test tubes, Ø12mm (5mL)

**VT1.3.4 tube adapter** Cat. No.18900023

for 8 test tubes, Ø16mm (10mL)

**VT1.3.5 tube adapter** Cat. No.18900024

for 8 test tubes, Ø20mm (10-15mL)

**VT1.3.6 Platform pad** Cat. No.18900043

Ø99mm, multiple small tubes and vessels

**VT1.3.7 vacuum chuck** Cat. No.18900158

made of rubber



Application of accessories

Accessories	Adjustable speed model (0-3000rpm)	
	Touch mode (High speed area)	Continuous mode (Low speed area)
VTI.1	Y	Y
VTI.2 + VT1.3.1	Y	
VTI.2 + VT1.3.2	Y	
VTI.2 + VT1.3.3	Y	
VTI.2 + VT1.3.4	Y	
VTI.2 + VT1.3.5	Y	
VTI.3 + VT1.3.6	Y	
VTI.3 + VT1.3.1		Y
VTI.3 + VT1.3.2		Y
VTI.3 + VT1.3.3		Y
VTI.3 + VT1.3.4		Y
VTI.3 + VT1.3.5		Y



MX-C

Cell Disruptor

Specifications	MX-C
Functions	Disrupts cells, yeast, bacteria, algae, fungi, etc.to prepare cell lysates for further processing
Mixing motion	High-speed circumferential vortex and oscillation function
Orbital diameter	4mm
Speed range	0-3000rpm (Adjustable)
Speed display	Scale
Capacity	8 × 2mL
Power Requirements	200-240V/ 100-120V, 50/60 Hz, 60W
Dimension	127X130X160mm
Weight	2.0kg



Features

- Durable, reliable and affordable
- Easy to operate, rapid hands-free disruption of up to 8 microtubes
- Processes at a constant, controlled shear rate
- Maintains genome integrity of the biological samples
- Facilitates subsequent purification of genomic material
- Best suited for research laboratories demanding accurate, reproducible, repeatable results

Applications

Suitable for all sample types; Lysis of yeast and fungi; for Isolation of genomic material from faecal samples; fungi and bacteria samples; soil samples; for Isolation of PCR-Ready Genomic DNA from Soil Samples; DNA & RNA Purification; Lysis of bacteria; Lysis of soft tissues; Isolation of genomic DNA; Purification of DNA; Cell Lysis; Used to lyse cell wall of yeast; Break hard/brittle samples.

MX-M

Microplate Mixer

Features

- Wide range of speed from 0 to 1,500 rpm (Double microplate: 0-1,000 rpm)
- Excellent performance with electronic speed control
- High speed and effective mixing for microplates
- With adapters for most popular vessels and microtiter plates
- Used for various mixing applications with optional adapters
- Maintenance-free brushless DC motor

Applications

Microplate Mixer is used for holding single or double microplates. The footprint of MX-M Microplate Mixer occupies less bench space and makes the storage easier. It is widely used in life sciences including microbiology, cell and molecular biology, immunology and biotechnology



Brushless DC motor



Wide range of accessories


PS1.1 Universal top plate	Cat. No.18900067
Used with tube adapters	
	

VT1.3.4 tube adapter	Cat. No.18900023
for 8 holes test tubes, Ø16mm	
	


VT1.3.1 tube adapter	Cat. No.18900020
for 48 holes test tubes, Ø6mm	
	

VT1.3.5 tube adapter	Cat. No.18900024
for 8 holes test tubes, Ø20mm	
	

VT1.3.2 tube adapter	Cat. No.18900021
for 15 holes test tubes, Ø10mm	
	

PS1.2 Microplate clamp	Cat. No.18900042
	

VT1.3.3 tube adapter	Cat. No.18900022
for 12 holes test tubes, Ø12mm	
	

MXM-116	Cat. No.18900079
Double microplate clamps	
	

Specifications	MX-M
Shaking movement	Orbital
Orbital diameter	4.5mm
Max. shaking weight (with accessory)	0.5kg
Motor type	Brushless DC motor
Motor rating input	18W
Motor rating output	10W
Speed range	Single microplate: 0-1500rpm Double microplate: 0-1000rpm
Speed display	Scale
Voltage,Frequency	100-240V,50/60Hz
Power	20W
Dimension	260 × 150 × 80mm
Weight	3kg
Permissible ambient temperature and humidity	5-40℃,80%RH
Protection class	IP20

MX-RD-Pro

LCD Digital Tube Rotator

Features

- LCD display of speed and time
- Circular rotating action, gives gentle but effective mixing
- Adjustable speed range from 10 to 70 rpm
- Adjustable angle from 0 to 90°
- Brushless motor ideal for extended use, and longer life
- Wide variety of accessories are available

Applications

Laboratory Tube Rotators are ideal for Biochemistry, Molecular Biology and Clinical applications. Provides a gentle but effective mixing of biological samples in 1.5ml to 50ml micro tubes, used in a variety of applications including immune precipitations, prevention of blood coagulation, latex diagnostics etc.



Specifications	MX-RD-Pro
Motor type	Brushless DC motor
Tilt angle	0-90°
Speed range	10-70rpm
Speed display	LCD
Timer display	LCD
Timer	1-1199min
Operation mode	Continuous / timer
Voltage,Frequency	100-240V, 50/60Hz
Power	40W
Dimension [D×W×H]	280×210×300mm
Permissible ambient temperature and humidity	5-40℃,80%RH
Protection class	IP21

MX-RL-Pro

LCD Digital Tube Rotator, Horizontal

Features

- LCD displays speed and time
- Adjustable speed range of 10 to 70 rpm
- Provides gentle but effective rolling and mixing
- Can be used in cold rooms or incubators
- Wide variety of Disk accessories and Rotisserie accessories available

Applications

Laboratory Tube Rotators are ideal for Biochemistry, Molecular Biology and Clinical applications. Provides a gentle but effective mixing of biological samples in 1.5mL to 50mL micro tubes, used in a variety of applications including immune precipitations, prevention of blood coagulation, latex diagnostics etc.



Specifications	MX-RL-Pro
Motor type	Brushless DC motor
Speed range	10–70rpm
Speed display	LCD
Timer display	LCD
Timer	1–1199min
Operation mode	Continuous / timer
Voltage,Frequency	100–240V, 50/60Hz
Power	40W
Dimension [D × W × H]	220 × 510 × 260mm
Permissible ambient temperature and humidity	5–40°C,80%RH
Protection class	IP21

Disk Accessories Type-1**Cat. No.18900160**

Used for MX-RD-Pro
for 1.5mLx60 centrifuge tubes holder

**Disk Accessories Type-2****Cat. No.18900161**

Used for MX-RD-Pro
for 15mLx16 centrifuge tubes holder

**Disk Accessories Type-3****Cat. No.18900162**

Used for MX-RD-Pro
for 50mLx8 centrifuge tubes holder

**Disk support rods****Cat. No.18900140**

4pcs in a group
use with disk accessories

**Rotisserie Accessory Type-3****Cat. No.18900144**

Used for MX-RL-Pro, for 50mLx24
centrifuge tubes held horizontally

**Rotisserie Accessory Type-4****Cat. No.18900145**

Used for MX-RL-Pro, for 1.5mLx32
centrifuge tubes held vertically

**Rotisserie Accessory Type-1****Cat. No.18900142**

Used for MX-RL-Pro, for 1.5mLx48
centrifuge tubes held horizontally

**Rotisserie Accessory Type-5****Cat. No.18900146**

Used for MX-RL-Pro, for 15mLx16
centrifuge tubes held vertically

**Rotisserie Accessory Type-2****Cat. No.18900143**

Used for MX-RL-Pro, for 15mLx24
centrifuge tubes held horizontally

**Rotisserie Accessory Type-6****Cat. No.18900147**

Used for MX-RL-Pro, for 50mLx16
centrifuge tubes held vertically



MX-RD-E

Effective affordable mixing

Features

- Speed controlled by Scale
- Adjustable speed range from 0 to 80 rpm

Applications

Laboratory Tube Rotators are ideal for Biochemistry, Molecular Biology and Clinical applications. Provides a gentle but effective mixing of biological samples in 1.5mL to 50mL micro tubes, used in a variety of applications including immune precipitations, prevention of blood coagulation, latex diagnostics etc.



Plastic Clips

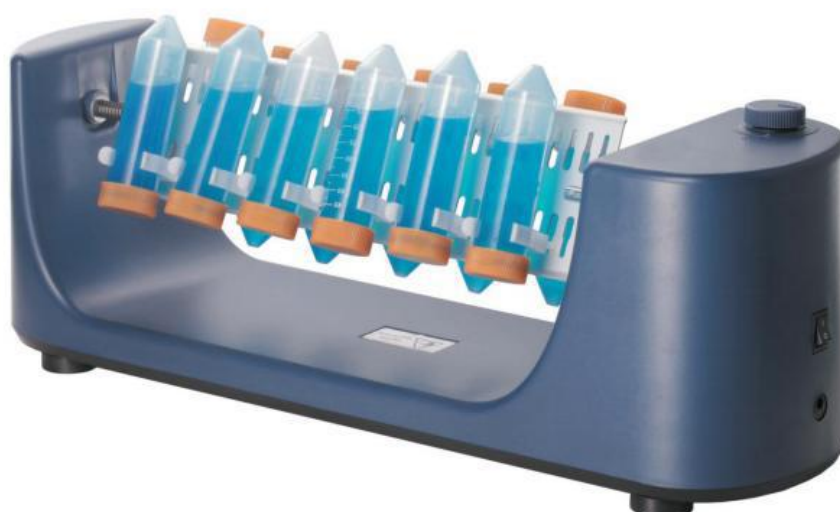
Used with MX-RL-E/MX-RD-E Disk/Rotisserie accessory, for 50mL, 15mL and 1.5mL.



Specifications	MX-RD-E
Motor type	DC motor
Speed range	0-80rpm
Speed display	Scale
Operation mode	Continuous
Voltage,Frequency	100-240V, 50/60Hz
Power	20W
Dimension [D × W × H]	300 × 220 × 310mm
Permissible ambient temperature and humidity	5-40°C, 80%RH
Protection class	IP21

MX-RL-E

Economical Rotator



Features

- Provides gentle but effective rolling
- Adjustable speed range from 0 to 80 rpm

Applications

Rotisserie Horizontal Tube Rotator provides slow to vigorous mixing of your biological samples and solutions with advanced features you expect. Used in a variety of applications including immune precipitations, prevention of blood coagulation, latex diagnostic tests etc. Not recommended for extended use in incubators or cold rooms.

Plastic Clips

Used with MX-RL-E/MX-RD-E Disk/Rotisserie accessory, for 50mL, 15mL and 1.5mL.



Specifications	MX-RL-E
Motor type	DC motor
Speed range	0-80rpm
Speed display	Scale
Operation mode	Continuous
Voltage,Frequency	100-240V, 50/60Hz
Power	20W
Dimension [D × W × H]	150X530X190mm
Permissible ambient temperature and humidity	5-40°C,80%RH
Protection class	IP21

Laboratory Deck Rocking Rotator Mixer

SK-R30S-E

Short Deck Rocking Rotator

SK-R30L-E

Long Deck Rocking Rotator

SK-R30D-E

Long Deck Double Layer Rocking Rotator



Applications

Laboratory Deck Rocking Rotator Mixer is suitable for molecular biology, virology, microbiology, pathology, immunology and other laboratories in scientific research units, medical schools, emergency control centres, and medical and health units.

Features

- Brushless DC motor
- Continuous mode of operation
- Available with various silicon mattress accessories

Specifications	SK-R30S-E	SK-R30L-E	SK-R30D-E
Tilt angle	30 ± 3°	30 ± 3°	40 ± 3°
Load capacity	1kg	1kg	1kg
Motor type	Brushless DC motor	Brushless DC motor	Brushless DC motor
Speed range	0~30rpm	0~30rpm	0~30rpm
Operation mode	Continuous	Continuous	Continuous
Dimension (W × D × H)	295 × 160 × 120mm	405 × 160 × 120mm	405 × 160 × 160mm
Voltage, Frequency	100~240V, 50/60Hz	100~240V, 50/60Hz	100~240V, 50/60Hz
Power	15W	15W	15W
Weight	1.8kg	2kg	2.2kg
Permissible ambient temperature and humidity	5~40℃, 80%RH	5~40℃, 80%RH	5~40℃, 80%RH

Accessories Information



Cat.No.18202835

Silicone mattress for 16 × 5~10mL blood collection tubes on long decks (SK-R30L-E & SK-R30D-E)



Cat.No.18202846

Silicone mattress for 6 × 50mL test tubes on long decks (SK-R30L-E & SK-R30D-E)



Cat.No.18202852

Silicone mattress for 10 × 5~10mL blood collection tubes on short decks (SK-R30S-E)



Cat.No.18202853

Silicone mattress for 4 × 50mL test tubes on short decks (SK-R30S-E)

MX-T6-Pro

LCD Digital Tube Roller

Features

- LCD displays the speed and time
- Rocking & rolling at variable-speed
- Adjustable speed range from 10 to 70 rpm
- Six roller design for gentle and efficient rolling, and easy to clean
- DC brushless motor quiet and maintenance free
- Cold room and incubator compatible



LCD display



Timer



MX-T6-S

Standard tube roller

Features

- Adjustable speed range from 0 to 70 rpm
- Six roller design for gentle and efficient rolling, and is easy to clean

Applications

Laboratory tube rollers provide a gentle and highly efficient rolling motions, deal for mixing blood samples, viscous substances and liquid-solid suspensions. Used in a variety of applications, such as the prevention of blood coagulation, immune precipitation, etc.

Specifications	MX-T6-Pro	MX-T6-S
Amplitude	24mm	24mm
Motor type	DC motor	DC motor
Rocking motion	Rocking and rolling	Rocking and rolling
Max. load capacity	4kg	4kg
Number of rollers	6	6
Roller size[length]	280mm	280mm
Speed range	10-70rpm	0-70rpm
Speed display	LCD	Scale
Timer	Yes	-
Timer display	LCD	-
Time setting range	1-1199min	-
Operation mode	Continuous/timer	Continuous
Voltage,Frequency	100-240V,50/60Hz	100-240V,50/60Hz
Power	30W	25W
Dimension [D × W × H]	485 × 250 × 100mm	485 × 250 × 100mm
Weight	5.1kg	4.5kg
Permissible ambient temperature and humidity	5-40℃,80%RH	5-40℃,80%RH
Protection class	IP21	IP21

SK-0330-Pro SK-0180-Pro

LCD Digital Orbital Shaker

Features

- Independent LCD display for speed and time
- Compact footprint
- Provides smooth and uniform shaking
- Two options: 7.5 kg (O330) with platform and 2.5kg (O180) with platform speed range 100–500 rpm and 100–800 rpm
- Continuous or timer operation mode
- Maintenance-free brushless DC motor
- Over speed detection and protection
- Wide range of optional platform for flasks, and other popular vessels
- Remote function provides PC control and data transmission
- Free software for PC control & data logging

Applications

Suitable for mixing in culture dishes, flasks and beakers. Ideal for aeration and extraction applications. It can be used in environmental chambers and CO₂ incubators.



SK-O330-Pro



SK-O180-Pro



Specifications	SK-O330-Pro	SK-O180-Pro
Orbital diameter	10mm	4mm
Max. load capacity (with platform)	7.5kg	2.5kg
Motor type	Brushless DC motor	Brushless DC motor
Motor input power	28W	28W
Motor output power	15W	15W
Speed range	100–500rpm	100–800rpm
Speed display	LCD	LCD
Timer display	LCD	LCD
Time settings range	1min–19h59min	1min–19h59min
Voltage, Frequency	100–240V, 50/60Hz	100–240V, 50/60Hz
Power	30W	30W
Weight	12kg	8.1kg
Permissible ambient temperature and humidity	5–40°C, 80%RH	5–40°C, 80%RH
Dimension[W × D × H]	370 × 420 × 100mm	300 × 340 × 100mm
Protection class	IP21	IP20
Data connector	RS232	RS232

SK-0330-M

Fixed Top LCD Digital Orbital Shaker



Features

- Independent LCD display for speed and time
- Compact footprint
- Provides smooth and uniform shaking
- Two options: 9.8kg (O330-M) and speed range 70-400rpm, 3.1kg (O180-S) and speed range 40-200rpm
- Continuous or timer operation mode
- Maintenance- free brushless DC motor
- Over speed detection and protection
- Wide range of optional platform for flasks, and other popular vessels

Applications

Orbital Shaker is ideal for applications like bacterial suspension, solubility studies, growth of bacteria and yeast, extraction procedures, washing procedures, diagnostics tests, hybridization, general mixing, staining & destaining, mixing, and extracting.

It is suitable for almost any vessel from micro-centrifuge tubes through petri dishes and microplates to conical flasks.

SK-0180-S

LED Digital Orbital Shaker



Timer

Specifications	SK-O180-S	SK-O330-M
Orbital diameter	20mm	10mm
Max. load capacity (with platform)	2kg	3kg
Motor type	Brushless DC motor	Brushless DC motor
Motor input power	20W	20W
Motor output power	16W	15W
Speed range	40-200rpm	70-400rpm
Speed display	LED	LCD
Timer display	LED	LCD
Time settings range	1min-19h59min	1min-19h59min
Voltage,Frequency	100-240V,50/60Hz	100-240V,50/60Hz
Power	20W	25W
Weight	3.1kg	9.8kg
Permissible ambient temperature and humidity	5-40°C,80%RH	5-40°C,80%RH
Dimension[W × D × H]	294 × 348 × 123mm	420 × 370 × 100mm
Protection class	IP20	IP21
Work plate Dimension [W × D]	268x268mm	335 × 335mm

SK-L330-Pro

SK-L180-Pro

LCD Digital Linear Shaker

Features

- Linear reciprocating shaking action
- Two options: 7.5kg(L330) and 2.5kg(L180) with platform
- Independent LCD display for speed and time
- Speed range of 100–350 rpm
- Maintenance-free brushless DC motor
- Over speed detection and protection
- Wide range of platforms for use with a variety of vessels

Applications

Suitable for mixing in culture dishes, flasks and beakers. Ideal for aeration and extraction applications. It can be used in environmental chambers and CO₂ incubators.



SK-L330-Pro



SK-L180-Pro

Specifications	SK-L330-Pro	SK-L180-Pro
Amplitude	10mm	4mm
Max. load capacity (with platform)	7.5kg	2.5kg
Motor type	Brushless DC motor	Brushless DC motor
Motor input power	28W	28W
Motor output power	15W	15W
Speed range	100–350rpm	100–350rpm
Speed display	LCD	LCD
Timer display	LCD	LCD
Time settings range	1min–19h59min	1min–19h59min
Voltage, Frequency	100–240V, 50/60Hz	100–240V, 50/60Hz
Power	30W	30W
Weight	13.5kg	8.1kg
Permissible ambient temperature and humidity	5–40°C, 80%RH	5–40°C, 80%RH
Dimension[W × D × H]	370 × 420 × 100mm	300 × 340 × 100mm
Protection class	IP21	IP21
Data connector	RS232	RS232



SK-R330-Pro

LCD Digital Rocking Shaker

Features

- Rocking motion angle 9°
- Maximum load capacity of 10 kg with platform
- Speed range of 10-70 rpm
- Double LCDs for independent display of time and speed
- Wide range of platforms for use with a variety of vessels

Applications

Designed for time-dependent and low rpm sensitive shaking applications such as ELISA washes, enzyme immunoassays, protein synthesis, hybridization staining/destaining gels, , immune precipitation and Western blots; cell culture; pharmaceutical profiling, etc.

Specifications	SK-R330-Pro
Tilt angle	9°
Max. load capacity(with platform)	10kg
Motor type	DC motor
Motor input power	40W
Motor output power	24W
Speed range	10-70rpm
Speed display	LCD
Timer display	LCD
Time settings range	1min-19h59min
Voltage,Frequency	100-240V, 50/60Hz
Power	50W
Weight	9kg
Permissible ambient temperature and humidity	5-40℃,80%RH
Dimension[W × D × H]	360 × 410 × 200mm
Protection class	IP21

SK-D3309-Pro

LCD Digital 3D Shaker

Features

- Three-dimensional rocking motion with an angle of 9°
- Maximum load capacity of 5kg with platform
- Speed range of 10–70 rpm
- Independent LCD display of time and speed
- Incubator compatible
- Various platform accessories



Applications

3D shaker used for uniform shaking mixing in flasks, culture flasks, petri dishes and tubes. Ideal for culturing a variety of cell cultures, DNA extractions, distributing of cells and gel staining & destaining of cells.



Timer













Wide range of accessories

Specifications	SK-D3309-Pro
Tilt angle	9°
Max. load capacity(with platform)	5kg
Motor type	DC motor
Motor input power	40W
Motor output power	24W
Speed range	10–70rpm
Speed display	LCD
Timer display	LCD
Time settings range	1min–19h59min
Voltage,Frequency	100–240V, 50/60Hz
Power	50W
Weight	9kg
Permissible ambient temperature and humidity	5–40℃,80%RH
Dimension[W × D × H]	360 × 430 × 106mm
Protection class	IP21



Cat. No.	Description	SK-O330-Pro	SK-L330-Pro	SK-R330-Pro	SK-D3309-Pro	SK-O180-Pro	SK-L180-Pro
 18900155	SK330.5, Dish platform with non-slip mat and fixed string (8pcs) Dimension[WxD]: 30x28.5cm	■	■	■	■		
 18202835	Silicone mattress for 16 × 5~15mL tubes, use with SK330.5	■	■	■	■		
 18202846	Silicone mattress for 6 × 50mL tubes, use with SK330.5	■	■	■	■		
 18900185	SK180.4, Dish attachment with non-slip mat Dimension[WxD]: 24x21.5cm					■	■
 18900200	SK180.5, Large size dish attachment with non-slip mat Dimension[WxD]: 30x23cm					■	■
 18900326	SK180.6, Dish attachment with non-slip mat Dimension[WxD]: 28x28cm					■	■
 18202852	Silicone mattress for 10 × 5~10mL tubes					■	■
 18202853	Silicone mattress for 4 × 50mL tubes					■	■
 18900027	SK330.1, Universal attachment with 4 bars Size: 32x32cm Capacity for flask: 25mLx21pcs, 50mLx15pcs, 100mLx12pcs, 250mLx6pcs, 500x4pcs	■	■	■	■		
 18900040	SK330.3, Lengthways roller attachment Size: 32x32cm Capacity for flask: 25mLx21pcs, 50mLx15pcs, 100mLx12pcs, 250mLx6pcs, 500x4pcs	■	■	■	■		
 18900025	SK180.1, Universal attachment with 3 bars Size: 25x24.5cm Capacity for flask: 25mLx10pcs, 50mLx8pcs, 100mLx6pcs, 250mLx4pcs, 500x2pcs					■	■
 18900038	SK180.3, Lengthways roller attachment Size: 25x24.5cm Capacity for flask: 25mLx10pcs, 50mLx8pcs, 100mLx6pcs, 250mLx4pcs, 500x2pcs					■	■

Cat. No.	Description	SK-O330-Pro	SK-L330-Pro	SK-R330-Pro	SK-D3309-Pro	SK-O180-Pro	SK-L180-Pro
 18900036	Bar for SK330.1 universal attachment	■	■	■	■		
 18900037	Bar for SK180.1 universal attachment					■	■
 18900280	Connect sticks for double dishes shaker	■	■	■	■	■	■
 18900028	SK330.2, Fixing clip attachment Size: 32 x 32cm	■	■	■	■		
 18900026	SK180.2, Fixing clip attachment Size: 25 x 24cm					■	■
 18900029	Fixing clip for flask volume 25mL, used with SK330.2[56pcs] SK180.2[36pcs]	■	■	■	■	■	■
 18900030	Fixing clip for flask volume 50mL, used with SK330.2[28pcs] SK180.2[18pcs]	■	■	■	■	■	■
 18900031	Fixing clip for flask volume 100mL, used with SK330.2[28pcs] SK180.2[18pcs]	■	■	■	■	■	■
 18900032	Fixing clip for flask volume 200/250mL, used with SK330.2[13pcs] SK180.2[8pcs]	■	■	■	■	■	■
 18900033	Fixing clip for flask volume 500mL, used with SK330.2[9pcs] SK180.2[8pcs]	■	■	■	■	■	■

Spectrophotometer

**SP-V1000/SP-UV1000/SP-V1100/
SP-UV1100**

Features

- Saves up to 200 group data & 200 standard curves
- Data can be restored even after a sudden power failure
- Auto setting of wavelength to calibrate the system
- Wavelength range from 190 to 1100nm
- Automatic Switching between Tungsten & Deuterium lamps
- System is fully equipped and capable of executing all functions in stand-alone mode
- Large sample for accommodate 5 – 100mm path length cuvettes with optional holders
- Optional application software 'Wave Professional' provides computer control, and other functions such as spectrum scan, time scan(kinetics), multiwavelength scanning & Nucleic Acid / Protein measurement. (SP-V1100/SP-UV1100)
- Wide range of accessories are available



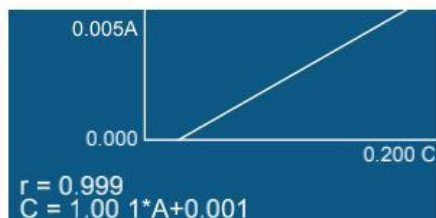
Applications

Our Spectrophotometer range is highly recommended for live display of ABS & %T, Quantitative analysis (Beer's Law), Reaction monitoring, Colorimetric analysis, Kinetic experiments, Protein and DNA assays, DNA & RNA quantification, Protein quantification and many more application in Advanced teaching labs; Industrial, Pharmaceutical, Life Science & Biotechnology research QA/QC labs.

Basic Mode

546.0nm		0.001A
No.	WL.	Abs.
1	230.0	0.001
2	340.0	0.000
3	450.0	0.002
4	540.0	0.000
5	620.0	0.003

Quantitative



Kinetics





Model	SP-V1000	SP-UV1000	SP-V1100	SP-UV1100
Optical System	Single Beam	Single Beam	Single Beam	Single Beam
Light Source	Tungsten lamp	Tungsten lamp & Deuterium lamp	Tungsten lamp	Tungsten lamp & Deuterium lamp
Spectral Bandwidth	4.0nm	4.0nm	2.0nm	2.0nm
Wavelength Range	325-1000nm	200-1000nm	320-1100nm	190-1100nm
Wavelength Accuracy	± 2nm	± 2nm	± 0.5nm	± 0.5nm
Wavelength Repeatability	≤ 1nm	≤ 1nm	≤ 0.3nm	≤ 0.3nm
Photometric Range	-0.3 - 3.0 A, 0 - 200%T	-0.3 - 3.0 A, 0 - 200%T	-0.3 - 3.0 A, 0 - 200%T	-0.3 - 3.0 A, 0 - 200%T
Photometric Accuracy	± 0.003 A @ 0.5 A, ± 0.006 A @ 1.0 A, ± 0.5%T @ 100%T	± 0.003 A @ 0.5 A, ± 0.006 A @ 1.0 A, ± 0.5%T @ 100%T	± 0.002 A @ 0.5 A, ± 0.004 A @ 1.0 A, ± 0.3%T @ 100%T	± 0.002 A @ 0.5 A, ± 0.004 A @ 1.0 A, ± 0.3%T @ 100%T
Photometric Repeatability	≤ 0.0015 A @ 0.5 A, ≤ 0.003 A @ 1.0 A, ≤ 0.25%T @ 100%T	≤ 0.0015 A @ 0.5 A, ≤ 0.003 A @ 1.0 A, ≤ 0.25%T @ 100%T	≤ 0.001 A @ 0.5 A, ≤ 0.002 A @ 1.0 A, ≤ 0.15%T @ 100%T	≤ 0.001 A @ 0.5 A, ≤ 0.002 A @ 1.0 A, ≤ 0.15%T @ 100%T
Stability	≤ 0.002 A/h @ 500 nm (after preheat 2 hours)	≤ 0.002 A/h @ 500 nm (after preheat 2 hours)	≤ 0.002 A/h @ 500 nm (after preheat 2 hours)	≤ 0.002 A/h @ 500 nm (after preheat 2 hours)
Stray Light	≤ 0.2%T @ 360nm	≤ 0.2%T @ 360nm	≤ 0.05%T @ 360nm	≤ 0.05%T @ 220 & 360nm
Sample Compartment	4-position, 10mm pathlength cuvette	4-position, 10mm pathlength cuvette	4-position, 10mm pathlength cuvette	4-position, 10mm pathlength cuvette
Display	LCD	LCD	LCD	LCD
Output	USB Port & Parallel Port (Printer)	USB Port & Parallel Port (Printer)	USB Port & Parallel Port(Printer)	USB Port & Parallel Port (Printer)
Power Requirements	110/220VAC, 50/60Hz, 80W	110/220VAC, 50/60Hz, 120W	110/220VAC, 50/60Hz, 80W	110/220VAC, 50/60Hz, 120W
Dimension(L × W × H)	490 × 360 × 210mm	490 × 360 × 210mm	490 × 360 × 210mm	490 × 360 × 210mm
Weight	12kg	14kg	12kg	14kg





Cat. No. 18900337

Micro Cell holder



Cat. No. 18900340

8-position auto cell changer
(for SP-V1100&SP-UV1100)

Cat. No. 18900331

4-cell holder for 10mm square cuvette



Cat. No. 18900332

4-cell holder for 10mm
to 50mm square cuvette

Cat. No. 18900333

4-cell holder for up to
100mm square cuvette

Cat. No. 18900338

Test tube holder (ø8-ø22mm)



Cat. No. 18900334

cylindrical cell holder (ø16mm)



Cat. No. 18900339

solid sample holder
(ø1.5-3mm ø1 position)

Cat. No. 18900335

10mm water-jacketed 1 cell holder
(for SP-V1100 & SP-UV1100)

Cat. No. 18900336

10mm water-jacketed 4-cell holder
(for SP-V1100 & SP-UV1100)Square cuvettes glass/quartz
1-5mm/10-100mm

Cat. No. 18900341

12V20W halogen lamp



Cat. No. 18900342

Milas deuterium lamp,
10V, 300mA, 30W
(for SP-UV1000 & SP-UV1100)