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**Mixing** 

DLAB 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.

DLAB 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

iquid Handling



**Liquid Handling** 

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

#### **List of DLAB models:**

Series	Image	Model	Application	Operation Method	Volume Range	Channel Option	Autoclavable	Page	
Mechanical		HiPette	Aqueous solution	Mechanical	0.1-10000μL	Single channel	YES	p.5	
Pipette	7	MicroPette Plus	Aqueous solution	Mechanical	0.1-5000μL	Single Channel Adj. & Fixed;	YES	p.7	
	Y	MICIOPELLE Flus	Aqueous solution	Mechanicat	0.5-300μL	8 Channel Adj.; 12 Channel Adj.;	163		
		MiniPette	Aqueous solution	Mechanical	25-300μL	Single Channel Fixed	NO	p.19	
	Î	dPett		Aqueous solution	Electronic	0.5-1000μL	Single Channel Adj.	VT0 (1 )	
Electronic		dPette+	/iqueous solution	Licetronic	0.5-300μL	8 Channel Adj.	YES(lower part)	p.11	
Pipette	:	dPette	Aqueous solution	Electronic	0.5-1000μL	Single Channel Adj.	YES (lower part)	p.13	
Dinata Fillar		Levo Plus	Aqueous solution	Electronic	0.1-100mL	Single channel	YES (silicon adapter&nozzle)	p.15	
Pipette Filler		Levo Me	Aqueous solution	Electronic	0.1-100mL	Single channel	YES (silicon adapter&nozzle)	p.17	
Pipette Controller	11	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.19	
Stepper		StepMate	Aqueous solution, high viscosity or volatile solution	Mechanical	0.5-50mL	Single channel	NO	p.20	

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 DLAB models:**















Product Name	Diction of New Bottle-Top		Electronic Bottle-Top Dispenser	Electronic Burette	Vacuum Aspiration System	Economical Vacuum Aspirator	Bench top compact vacuum aspirator
Model	DispensMate	DispensMate-Pro	dFlow	dTrite	SafeVac	EcoVac	Smart VAC
Application	Reagent p	pipetting and liquid (	dispensing	Used in titration operations in chemical analysis, food industry, environmental analysis	Liquid collection and including cell culture superi	The product features for the aspiration and processing of liquids including cell culture media, suspensions, and supernatants.	
Operation	Manual	Manual	Electronic	Electronic	Electronic	Electronic	Electronic
Volume Range	2 5 25 40 1		0.1-99.9mL	0.01-99.99mL	Vacuum range: 0-600mbar Bottle volume:4L	Vacuum range: 0-500mbar Bottle volume:2L	Vacuum level 600mbar; Collection bottle volume: 1L
Reagent Recovery Function	NO	Yes	Yes	Yes	Yes NO		NO
Features	-	-Pro Glass piston (Part volume)	-	-	Sensitive level - sensor,Self-closing connector		Optional 500mL bottle and filtration flask
Fully autoclavable	The part where the liquid flows	Whole	-	-	The part where the liquid flows	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.25	P.24	P.23	P.22	P.26	P.28	P.30

# **HiPette**

#### **Fully Autoclavable Mechanical Pipette**

The DLAB 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.



#### **Ultra-light ergonomic design**

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



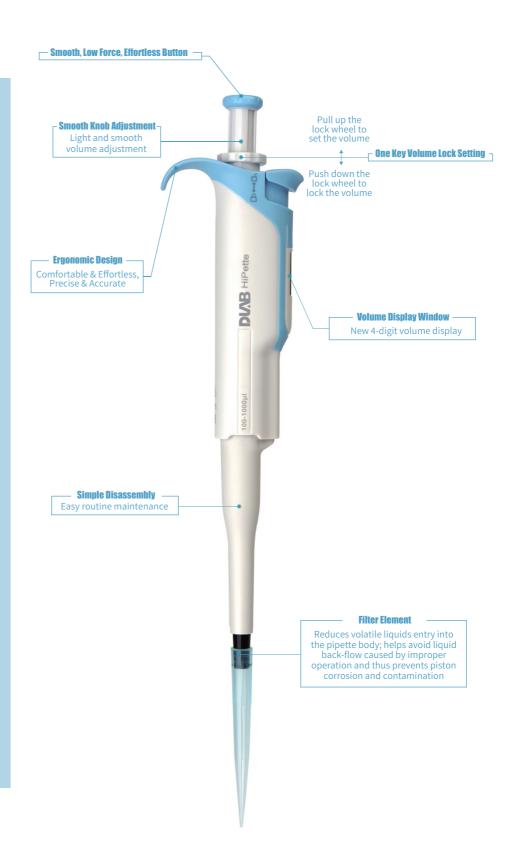
#### **Accurate pipetting**

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** 

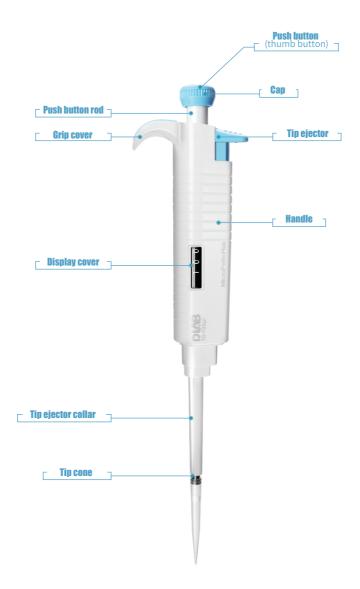
# SINGLE-CHANNEL ADJUSTABLE VOLUME PIPETTES (12 MODELS, COVERING 0.1µL~10mL.)

Volume Range	Increment	Test Volume	Systema	tic Error	Random	Error
μL	μL	μL	μL	%	μL	%
		2.5	±0.04	±1.4	±0.02	±0.7
0.1-2.5	0.002	1.25	±0.03	±2.5	±0.02	±1.5
0.1 2.0	0.002	0.25	±0.03	±12.0	±0.02	±6.0
		10	±0.10	±1.0	±0.04	±0.4
0.5-10	0.01	5	±0.08	±1.5	±0.04	±0.8
0.0 10	0.01	1	±0.03	±2.5	±0.02	±1.8
		20	±0.20	±1.0	±0.06	±0.3
2-20	0.02	10	±0.12	±1.2	±0.06	±0.6
2 20	0.02	2	±0.10	±5.0	±0.03	±1.5
		50	±0.45	±0.9	±0.15	±0.3
5-50	0.05	25	±0.35	±1.4	±0.20	±0.8
	0.00	5	±0.15	±3.0	±0.08	±1.6
		100	±0.80	±0.8	±0.20	±0.2
10-100	0.1	50	±0.50	±1.0	±0.15	±0.3
10 100		10	±0.30	±3.0	±0.10	±1.0
		200	±1.20	±0.6	±0.40	±0.2
20-200	0.2	100	±1.00	±1.0	±0.30	±0.3
		20	±0.50	±2.5	±0.14	±0.7
		300	±1.80	±0.6	±0.60	±0.2
30-300	0.2	150	±1.50	±1.0	±0.45	±0.3
		30	±0.75	±2.5	±0.21	±0.7
		1000	±6.00	±0.6	±2.00	±0.2
100-1000	1	500	±5.00	±1.0	±1.00	±0.2
100 1000	_	100	±3.00	±3.0	±0.60	±0.6
		5000	±30.00	±0.6	±10.00	±0.2
1000-5000	5	2500	±15.00	±0.6	±7.50	±0.3
	-	1000	±12.00	±1.2	±3.00	±0.3
		5000	±30.00	±0.6	±10.00	±0.2
500-5000	5	2500	±15.00	±0.6	±7.50	±0.3
	-	500	±12.00	±2.4	±3.00	±0.6
		10000	±60.00	±0.6	±20.00	±0.2
2000-10000	10	5000	±40.00	±0.8	±10.00	±0.2
	_•	2000	±30.00	±1.5	±6.00	±0.3
		10000	±60.00	±0.6	±20.00	±0.2
1000-10000	10	5000	±40.00	±0.8	±10.00	±0.2
	_•	1000	±30.00	±3.0	±6.00	±0.6

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







# **Features**

- Available as Fixed Volume and Adjustable Volume formats
- Streamlined shape design
- Comprehensive volume range from  $0.1\mu L$  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)

				Error limits in accorda	nce with ISO8655-2	
Volume Range	Increment	Test Volume	Systema	atic Error	Random Error	
μL	μL	μL	μL	%	μL	%
		2.5	±0.0625	±2.50	±0.05	±2.00
0.1-2.5	0.05	1.25	±0.0375	±3.00	±0.0375	±3.00
012 210	0.00	0.25	±0.03	±12.00	±0.015	±6.00
		10	±0.1	±1.00	±0.08	±0.80
0.5-10	0.1	5	±0.075	±1.50	±0.075	±1.50
		1	±0.025	±2.50	±0.015	±1.50
		20	±0.18	±0.90	±0.08	±0.04
2-20	0.5	10	±0.12	±1.20	±0.1	±1.00
		2	±0.06	±3.00	±0.04	±2.00
		50	±0.3	±0.60	±0.15	±0.30
5-50	0.5	25	±0.225	±0.90	±0.15	±0.60
		5	±0.1	±2.00	±0.1	±2.00
10-100		100	±0.8	±0.80	±0.15	±0.15
	1	50	±0.5	±1.00	±0.2	±0.40
		10	±0.3	±3.00	±0.15	±1.50
		200	±1.2	±0.60	±0.3	±0.15
20-200	1	100	±0.8	±0.80	±0.3	±0.30
		20	±0.6	±3.00	±0.2	±1.00
	1	200	±1.2	±0.60	±0.3	±0.15
50-200		100	±0.8	±0.80	±0.3	±0.30
		50	±0.5	±1.00	±0.2	±0.40
		1000	±6	±0.60	±2	±0.20
100-1000	5	500	±3.5	±0.70	±1.25	±0.25
		100	±2	±2.00	±0.7	±0.70
		1000	±6	±0.60	±2	±0.20
200-1000	5	500	±3.5	±0.70	±1.25	±0.25
		200	±1.8	±0.90	±0.6	±0.30
		5000	±25	±0.50	±7.5	±0.15
1000-5000	50	2500	±15	±0.60	±7.5	±0.30
		1000	±7	±0.70	±3	±0.30
2000-10000		10000	±60	±0.60	±20	±0.20
Do not apply to	100	5000	±60	±1.20	±15	±0.30
MicroPette plus		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	System	atic 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	System	natic Error	Random	ndom Error			
μL	μL	μL	μL	%	μL	%			
		10	±0.15	±1.50	±0.15	±1.50			
0.5-10	0.1	5	±0.125	±2.50	±0.125	±2.50			
		1	±0.04	±4.00	±0.04	±4.00			
	0.5	50	±0.5	±1.00	±0.25	±0.50			
5-50		25	±0.375	±1.50	±0.25	$\pm 1.00$			
		5	±0.15	±3.00	±0.1	±2.00			
	1	100	±0.8	±0.80	±0.3	±0.30			
10-100		50	±0.5	±1.00	±0.4	±0.80			
		10	±0.3	±3.00	±0.2	±2.00			
		300	±2.1	±0.70	±0.75	±0.25			
50-300	5	150	±1.5	±1.00	±0.75	±0.50			
		50	±0.75	±1.50	±0.4	±0.80			
	10	1000	±10	±1.00	±3	±0.30			
100-1000		500	±10	±2.00	±2.5	±0.50			
		100	±5	±5.00	±1	±1.00			

12-channel Adjustable Volume Pipettes										
Volume Range	Increment	Test Volume	System	atic Error	Randon	Error				
μL	μL	μL	μL	%	μL	%				
		10	±0.15	±1.50	±0.15	±1.50				
0.5-10	0.1	5	±0.125	±2.50	±0.125	±2.50				
		1	±0.04	±4.00	±0.04	±4.00				
	0.5	50	±0.5	±1.00	±0.25	±0.50				
5-50		25	±0.375	±1.50	±0.25	±1.00				
		5	±0.15	±3.00	±0.1	±2.00				
		100	±0.8	±0.80	±0.3	±0.30				
10-100	1	50	±0.5	±1.00	±0.4	±0.80				
		10	±0.3	±3.00	±0.2	±2.00				
	5	300	±2.1	±0.70	±0.75	±0.25				
50-300		150	±1.5	±1.00	±0.75	±0.50				
		50	±0.75	±1.50	±0.4	±0.80				

 $<sup>*\</sup> DLAB\ specifications\ are\ used\ as\ guidelines\ and\ the\ user\ calibration\ should\ refer\ to\ the\ industrial\ standard\ ISO\ 8655$ 

# dPette+

### **Multi-functional 8-channel Electronic Pipette**

DLAB 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.



#### Three easy steps to operate dPette+

Long press the Parameter Knob for 2 seconds to Start

1

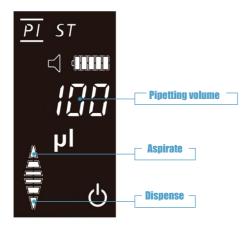
2

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

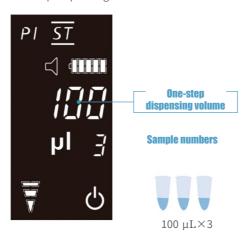
#### **Pipetting function**

Parameter Knob press → Pipetting, Long press → Mixing



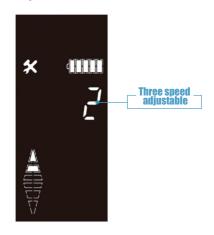
#### **Stepper function**

Maximum steps = Pipette nominal volume / One step dispensing volume



#### **Other function**

Pipetting speed adjustment Key tone ON/OFF



#### **Supports dual charging mode**



#### **Contact Charging**



#### **Support automatic Calibration**

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

Complimentary Pipette Holder

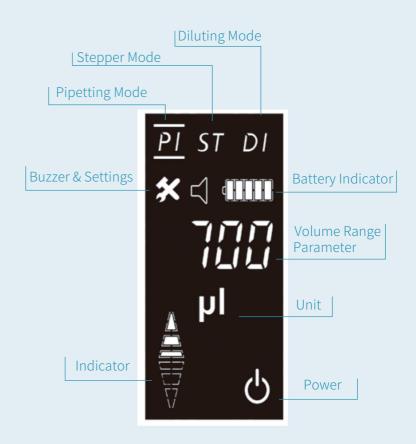
Channels	Volume Range	Increment	Test Volume	System	atic Error	tic Error Random Error		
	μL	μL	μL	μL	%	μL	%	
			10	±0.20	±2.00	±0.10	±1.00	
8	0.5-10	0.01	5	±0.20	±4.00	±0.10	±2.00	
			1	±0.08	±8.00	±0.05	±5.00	
	10-100		100	±0.80	±0.80	±0.30	±0.30	
8		0.1	50	±0.50	±1.00	±0.40	±0.80	
			10	±0.30	±3.00	±0.20	±2.00	
			300	±1.80	±0.60	±0.90	±0.30	
8	15-300	1	150	±1.50	±1.00	±0.75	±0.50	
			15	±0.60	±4.00	±0.15	±1.00	
	30-300		300	±1.80	±0.60	±0.90	±0.30	
8		1	150	±1.50	±1.00	±0.75	±0.50	
· ·		_	30	±0.90	±3.00	±0.30	±1.00	

<sup>\*</sup> DLAB 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 DLAB. 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.







# 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

**dPette**For Pipetting and Mixing

Channels	Volume Range	Increment	Test Volume	Systema	atic Error	Random Error	
Cildilliets	μL	μL	μL	μL	%	μL	%
			10	±0.10	±1.00	±0.05	±0.50
1	0.5-10	0.01	5	±0.10	±2.00	±0.10	±2.00
			1	±0.05	±5.00	±0.03	±3.00
	5-50	0.1	50	±0.40	±0.80	±0.15	±0.30
1			25	±0.25	±1.00	±0.25	±1.00
			5	±0.20	±4.00	±0.125	±2.50
			300	±1.80	±0.60	±0.60	±0.20
1	30-300	1	100	±1.00	±1.00	±0.40	±0.40
			30	±1.20	±4.00	±0.21	±0.70
			1000	±6.00	±0.60	±2.00	±0.20
1	100-1000	5	500	±5.00	±1.00	±1.00	±0.20
			100	±3.00	±3.00	±0.60	±0.60

<sup>\*</sup> DLAB specifications are used as guidelines and the user calibration should refer to the industrial standard ISO 8655



# **Features**

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



Aspiration Speed	25mL<5s (6 Level)				
Dispensing Speed	Motor/Gravity				
Battery	Replaceable lithium battery				
Battery Service Life	More than 12 Hours of Intermittence Use				
Charging Time	4-5 Hours				
Pipette Types	Glass or Plastic Pipette (0.1-100mL), Pasteur Pipettes				
Filter	0.45μm Hydrophobic				
Weight	208g				

# **Levo ME**

#### **Pipette Filler**

Elegant design & reliable performance, with long-life battery

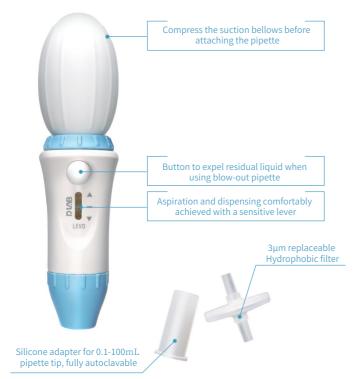
### **Features**

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

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
	000
Weight	200g



# **Levo**Pipette Controller





#### **Features**

- Reduce hands-on time.
- Can realize the midway refill.
- Drip by drip drainage, precise control.
- Add the last drop of liquid discharge button
- Compatible with glass or plastic serological pipettes (0.1 -100mL).
- 3µm replaceable hydrophobic filter.
- Fast suction, can absorb 25mL liquid in 4 secs.
- Humanized functional design, 118g ultra-light texture.
- Simple and sensitive liquid level regulation.
- Five color designs: blue, green, red, yellow, North Carolina blue, easy to distinguish between different applications.

### Levo pipetting is easy and effortless:



Manufacturing negative pressure:
Squeeze the ball to suck the

liquid.



The filling rate can be adjusted continuously with the help of the operating rod.



Press the operating lever to drain the liquid. The unique valve system ensures that the accuracy of the instrument is not affected by the drainage speed.



When it is necessary to blow out the liquid, when the concave surface reaches the nozzle, press the blow out ball.

# **Mini Pipette**

Mini Pipette is specially customized for fast pipetting with fixed volume and it is the first choice for IVD assay kit accessory. Ultra-light body, precise pipetting, smooth aspiration and dispensing bring an easier pipetting experience to customers.

- Ergonomic design, compact body, with easy operation;
- Easy to press, consistent with standard manual pipettes in operating habits;
- Multiple optional volume from 10 to 300ul, marked with different colors;
- Compatible with the standard 200ul/300ul tips;
- Accurate pipetting and reliable quality;
- Support customization;



Standard style



New style

	Color	Light Green	Grey	Dark Green	Yellow	Orange	Gray	Red	Blue	Grayish green	Other
N	/lini Pipette	10μL	20μL	25μL	30μL	50μL	60μL	75μL	100μL	200μL	OEM
	Color	Dark Green	Orange	Red	Light Blue	Blue	Gray	Purple	Other	_	<del>_</del>
N	New Ini Pipette	25	50	75	80	100	200	300	OEM	_	<del>_</del>

# **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, 5mL,10mL and 25mL
- Colour-coded by volume with Blue, yellow, green 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



# **Precision Dispenser Tip**

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

The dispenser tips 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

Hamber	ramser or seeps		25	10					
Cat. No.	dispenser tip 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



Volume Range	$0.01 \mathrm{mL}\text{-}99.99 \mathrm{mL}\text{,}$ Max piston lift is $10 \mathrm{mL}\text{,}$ resolution is $10 \mu L$
Volume Accuracy	R=0.2% CV=0.07%
Speed	16 Levels
Operating Temperature Range	10°C-30°C
Quality Control	DIN EN ISO 8655
Control Type	External control, including the stirrer and the burette program

# 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.



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%
Speed	16 Levels
Operating Temperature Range	10°C-30°C
Quality Control	DIN EN ISO 8655
Control Type	External control

<sup>\*</sup> 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  $\rm mL$ 

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

### **Features**

- High chemical compatibility with use of inert materials and glass/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)

Cat. No.	Volume Range	Graduation	Systema	tic Error	Random Error		
Gal. NU.	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	Adapter,	GL25, Adapter, 32/25mm	Adapter,	S40, Adapter, 45/40mm	Reagent Bottle (Brown, 1L)	Filling tube combination	(adambar 25 T		Discharge tube combination (adapter 25mL、 50mL、100mL)	



# **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**

DLAB 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.

- 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
- Adapters to comfortably fit most laboratory reagent bottles

Cat. No.	Volume Range	Graduation	Systema	tic Error	Random Error		
oat. No.	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		Adapter,	Adapter,	Adapter,	Adapter,	Reagent Bottle (Brown, 1L)	tube	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.

> Self-closing connectors to avoid escape of drops or aerosols from disconnected bottle

### **Features**

- · Compact, user-friendly design
- Level detection system prevents bottle overfill
- · 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.

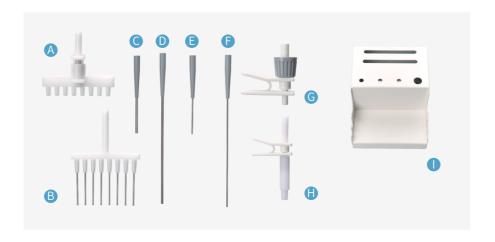


# **Specifications**

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
Max. Flow	15L/min(air)
Max. aspiration speed	17mL/s ( Liquid )
Bottle	4L
Autoclave component	Tube;waste bottle;operation handle;
Noise Level	≤55dB
Input voltage	100-240VAC,50/60Hz
Dimension[WxDxH]	180x240x450mm
Weight	3kg

Α	8-channel tip detrusion adapter 200μL tip
В	8 channel needle Ø1.5mm
С	Single needle Ø2.5mm, 40mm
D	Single needle Ø2.5mm, 120mm
Е	Single needle Ø1.5mm, 40mm
F	Single needle Ø1.5mm, 120mm
G	tip detrusion adapter 200μL tip
Н	tip detrusion adapter 1mL tip
I	SafeVac Handle bracket





**Specifications** 

Vacuum range	0-500mbar
Max. Flow	15L/min(air)
Max. aspiration speed	17mL/s(Liquid)
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

# **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

# 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









А	8-channel tip detrusion adapter 200μL tip
В	8 channel needle Ø1.5mm
С	Single needle Ø2.5mm, 40mm
D	Single needle Ø2.5mm, 120mm
Е	Single needle Ø1.5mm, 40mm
F	Single needle Ø1.5mm, 120mm
G	tip detrusion adapter 200μL tip
Н	tip detrusion adapter 1mL tip



# **Smart VAC**

**Bench top compact vacuum aspirator** 

The 1L bench-top compact vacuum aspirator with replaceable battery is designed for flexible handling of small amounts of liquids, with one key control, easy operation and wide application.

### **Features**

- Compact and portable, small foot print
  Suitable for any bench top space including
  laminar flow cabinet. the collection bottle is
  independent of the vacuum source and power
  supply, and can be placed at any position.
- One-key start to work with built-in rechargeable battery independent of exterior power supply
   Continuous work for 5 hrs after fully charged.
- Fast, safe and reliable
  Aspiration speed up to 1.6 L/min;
  hydrophobic filters against contamination.
- Dual function of aspiration and filtration
   1L collection bottle in standard package,
   with 500mL collection bottle (autoclavable) and filtration flask optional.

Vacuum Range	0-600mbar				
Aspiration speed	1.6 L/min(air)				
Bottle	1L collection bottle in Standard package, 500mL bottle with an adaptor, or filtration flask optional				
Adapter	1mL tip detrusion adapter, 8-channel tip detrusion adapter				
Motor type	Brushless DC motor/ Brush motor				
Power	DC 12V ,1.0A				
Battery	Rechargeable lithium battery 2000mA/h				
Noise Level	53dB				
Dimension [WxDxH]	127 x 144 x 244mm				
Weigh	0.5kg				

- Removal of supernatant from pellets;
- Removal of culture media;
- Quick removal of spillage from the bench top;
- Vacuum Filtration









#### **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 DLAB models:**

Model	Image	Function	Temp. Setting Range	Mixing speed	Blocks	Page
нв60-8		Heating	25°C,30°C, 37°C,45°C,60°C	-	5mL×30+10mL×8	p.34
HB120-S/SC	**	Heating	25°C-120°C	-	$\begin{array}{c} 0.2 \text{mL} \times 54 \\ 0.5 \text{mL} \times 40 \\ 1.5/2 \text{mL} \times 40 \\ 5/15 \text{mL} \times 28 \\ 5 \text{mL blood collection tube} \times 45 \\ 50 \text{mL} \times 8 \\ (0.2 \text{mL} + 0.5 \text{mL} + 1.5/2 \text{mL}) \times 18 \\ 0.2 \text{mL} \times 96 \text{ PCR Microplate} \\ \text{ELISA Microplate} \\ \text{Bead/Water bath} \end{array}$	p.34
HB105-S1/ S2		Heating	25°C-105°C	-	0.2mL×30 0.5mL×20 1.5mL×20 2mL×20	p.34
HB150-S1/S2		Heating	25°C-150°C	-	5mL×12 15mL×12 50mL×4 Bead/Water bath	p.34
H100-Pro		Heating	25°C-100°C	-		p.35
HC110-Pro		Heating&Cooling	-5°C-110°C	-	0.5mL×24 1.5mL×24 2mL×24 5mL×8(Round/Cone Bottom)	p.39
HCM100-Pro		Heating& Cooling&Mixing	0°C-100°C	200-1500rpm	15mL×8 50mL×4 0.2mL×96 PCR Microplate ELISA Microplate	p.38
HM100-Pro		Heating&mixing	15°C-100°C	200-1500rpm		p.38
Mini H100		Heating	25°C-100°C	-	0.2mL×40 0.5mL×24	p.37
Mini HC100		Heating&Cooling	0°C-100°C	-	1.5mL×15 2mL×15 5mL×6 15mL×4	p.37
Mini HCL100		Heating&Cooling (with hot lid)	0°C-100°C	-	50mL×2	p.37

# **DLAB Dry Bath Series**

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

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







HB105-S2



HB150-S1



HB150-S2



HB120-S/SC



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/SC/HB60-S

Easy to use, safe and durable

### **Features**

- Low profile space saving design
- The max heating temperature is 120°C
- (HB120-S/HB120-SC), and the timer function support available
- Discrete heating temperature levels:  $25 \,^{\circ}\text{C}$ ,  $30 \,^{\circ}\text{C}$ ,  $37 \,^{\circ}\text{C}$ ,  $45 \,^{\circ}\text{C}$ ,  $60 \,^{\circ}\text{C}$  (HB60-S)
- 5mL×30+10mL×8 dual purpose heating block
- Temperature calibration function inbuilt for users (HB120-SC)



# **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 90-150: ±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-99h59min	0min~99h59min	0min~99h59min	0min-99h59min	0min-99h59min
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**

#### MiniHCL100/MiniHC100/MiniH100

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
Error code display	Support	Support	Support
Dimension[WxDxH]	110x162x140mm	110x162x140mm	110x162x140mm
Total Weight [kg]	≤1	≤1	≤1
Voltage,Frequency	100-240V, 50/60Hz or DC12V	100-240V, 50/60Hz or DC12V	100-240V, 50/60Hz or DC12V
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 DLAB HCM100-Pro-Heating/Cooling/Mixing

DLAB 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



- 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 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 [°C]	Below room temp 15- 100	Room temp-100	Below room temp 25- 110
Temperature Setting range [°C]	0-100	15-100	-5-110
Temperature control accuracy@20-45 [°C]	±0.5	±0.5	±0.5
Temperature uniformity@20-45 [°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°C/min	5.5°C/min	5.5°C/min
Max Cooling speed	5°C/min(100°C-room temp) 0.5°C/min(below room temp)	-	2.5°C/min(100°C-room temp) 0.5°C/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 [°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 [°C]	10-40	10-40	10-40
Operating humidity [% RH]	<80	<80	<80

## **Blocks**

bead bath/water bath

Adapt to S2

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

Cat.No Magnetic Mechanical fixation	18900401 18900344	18900402 18900343	18900403 18900345	18900404 18900637	18900405 18900638	
Block types				( 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	as a	
Capacity	0.5mL×24	1.5mL×24	2mL×24	5mL×8 round bottom	5mL×8 cone bottom	
Speed	1500rpm	1500rpm	1500rpm	1500rpm	1400rpm	
Diameter×depth	8.1×26mm	10.9×30.8mm	10.9×30.8mm	13.6×42mm	n 17×51.5mm	
Cat.No Magnetic Mechanical fixation	18900874 —	18900406 —	18900407 —	18900420 18900349	18900423 18900350	
Block types			Abe			
Capacity	1.5mL×24 Chromatography Vial	15mL×8	50mL×4	$0.2 \mathrm{mL} \times 8$ PCR strips or $0.2 \mathrm{mL} \times 96$ PCR microplate	ELISA microplate	
Speed	1500rpm	800rpm	600rpm	1500rpm	1500rpm	
Diameter×depth	12×20.5mm	16.9×80mm	29.6×80mm	5.7×13.2mm	127×85mm	

#### HB120-S/HB120-SC (Standard:151×95×50mm, Thin:151×95×36.5mm)

	5/110120	oc (otaliaala)	131/133/13011111	, , , , , , , , , , , , , , , , , , , ,	3330.31111117		
Cat.No	Standard	18900218	18900219	18900253	18900220	18900818	18900221
.al.NO	Thin	18900274	18900275	18900276	18900277	_	_
	ock pes		IIIII		*********		
Сар	acity	0.2mL×54	0.5mL×40	1.5mL×40	2mL×40	2mL×60 Ampoules tubes	5/15mL×28
iamet	er×depth	6.4×15mm	8.2×26.4mm	11×34.7mm	11×34.7mm	12×37mm	17×48mm
Cat.No	Standard Thin	18900222 —	18900224 18900278	18900223 18900279	18900746 —	18900546 —	— 18900504
	ock pes	0000					
Сар	acity	50mL×8	0.2mL+0.5mL +1.5/2mL 18+18+18	microplate	Deep well Plate	5mL blood collection tubex45	0.2mL×8 PCR strips or 0.2mL×96 PCR microplate
Diamete	er×depth	29.8×48mm	Each capacity	127×85mm	137×86.5×42mm	13.5×48mm	5.7×13.2mm
Сар	acity	Cat. No.18900523	Capacity	Cat. No.18900	0520		
Two-ir	n-one block,						

Aluminum beads

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

Cat.No	18900459	18900460	18900461	18900462	18900463
Block types					
Capacity	0.2mL×30	0.5mL×20	1.5mL×20	2mL×20	5mLx12
Diameter×depth	6.4×15mm	7.85×28.4mm	11×34.7mm	11×34.7mm	16.6×46mm
Cat.No  Block types	18900464	18900465	18900522	18900523	18900520
Capacity	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
Diameter×depth	16.6×73mm	19.2×73.5mm	95×76×56mm	151×95×62mm	_

#### Mini HCL100/Mini HC100/Mini H100

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

# 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,mutagensis, and it is also used in areas such as drug discovery, agriculture, food industry, etc.

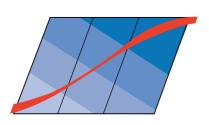


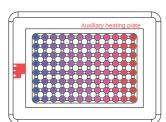


Excellent temperature uniformity



Temperature gradient





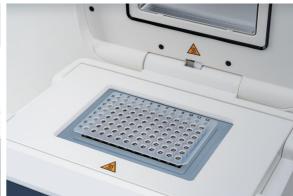


- High performance Peltier and independent heating segments improving temperature control
- Auxiliary heating mechanism diminishes the "edge effect" and enhance the temperature uniformity
- Wide touchdown PCR temperature range (-9.9°C~+9.9°C) and Long PCR time range (-9min 59s~+9min 59s)
- Gradient temperature 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









Excellent temperature accuracy

Technical Parameters	TC1000-G	TC1000-S
Sample Capacity	96×0.2mL PCR tube 12×0.2mL PCR-8 strips 0.2mL 96 PCR Microplate	96×0.2mL PCR tube 12×0.2mL PCR-8 strips 0.2mL 96 PCR Microplate
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°C	±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, and storage for over 200 files	Max.30 segments 99 cycles, and storage for over 200 files
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





## Stirring&Heating

Magnetic hotplate stirrers are used for low viscosity liquids or solid mixing, chemical synthesis, physical and chemical analysis, bio-pharmaceuticals etc. DLAB 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 <sub>2</sub> O)	Page
550 series	MS7-H550-Pro	-05	1	LCD	184x184mm	550°C	20L	p.51
000 361163	MS7-H550-S		1	LED	184x184mm	550°C	10L	p.51
500series	MS10-H500-Pro	M	1	LCD	254X254mm	500°C	30L	p.50
	MS-H-ProM *		1	LCD	Ø135mm	340°C	20L	p.53
	MS-H-Pro <sup>A</sup>		1	LCD	Ø135mm	340°C	20L	p.55
340 series	MS-H-Pro⁺		1	LCD	Ø135mm	340°C	20L	p.55
	MS-H-Pro <sup>⊤</sup>		1	LCD	Ø135mm	340°C	20L	p.55
	MS-H-S		1	Scale	Ø135mm	340°C	20L	p.55
	MS-H340-S4		4	LCD	Ø135mm	340°C	10Lx4	p.61
380 series	MS-H380-Pro		1	LCD	140x140mm	380°C	5L	p.56
280 series	MS-H280-B100*	3	1	LED	100mLBeaker	280°C	100mL	p.58
	MS-H280-B250*		1	LCD	25mLBeaker	280°C	250mL	p.58

#### **Magnetic Hotplate Stirrers:**

Series	Model	Image	Stirring Position	Display	Work plate Size	Max. Heating Temp.	Max. stirring quantity(H <sub>2</sub> O)	Page
	MS-H280-B500*		1	LCD	500mLBeaker	280°C	500mL	p.58
	MS-H280-B1000*		1	LCD	1000mLBeaker	280°C	1000mL	p.58
	MS-H280-F100*		1	LCD	100mLFlask	280°C	100mL	p.58
	MS-H280-F250*		1	LCD	250mLFlask	280°C	250mL	p.58
280 series	MS-H280-F500*		1	LCD	500mLFlask	280°C	500mL	p.58
	MS-H280-F1000*		1	LCD	1000mLFlask	280°C	1000mL	p.58
	MS-H280-Pro	(a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	1	LED	Ø135mm	280°C	3L	p.56
	MS-H280-S4*	ma ma ma	4	LCD	Ø134mm	280°C	3Lx4	p.62
	MS-H280-S6*		6	LCD	Ø134mm	280°C	3Lx6	p.62
120 series	MS-H-S10		10	Scale	180x450mm	120°C	0.4Lx10	p.65

<sup>\*</sup>Coming soon



#### **Magnetic Stirrers:**

Image	Model	Stirring Position	Display	Work plate Size	Max. stirring quantity(H2O)	Page
	MS7-S	1	Scale	184x184mm	10L	p.69
	MS6-Pro	1	LCD	140x140mm	5L	p.69
	MS-S	1	Scale	Ø135mm	20L	p.69
	MS-PA	1	LED	Ø135mm	3L	p.70
	MS-PB	1	Scale	Ø135mm	3L	p.70
	EcoStir	1	Scale	120x115mm	1.5L	p.74
	ECOSUI	1	Scale	Ø120mm	1.5L	p.73
	FlatSpin	1	-	Ø90mm	0.8L	p.73
	MS-M-S4*	4	LCD	Ø134	3LX4	p.63
	MS-M-S6*	6	LCD	Ø134	3LX6	p.63
	MS-T-S15	15	LCD	460x304mm	0.4LX15	p.71
	MS-M-S10	10	Scale	180x450mm	0.4Lx10	p.72

#### Hotplate:

lmage	Model	Display	Work plate Size	Max. Heating Temp.	Page
	HP500-Pro	LCD	254x254mm	500°C	p.66
	HP550-S	LED	184x184mm	550°C	p.67
	HP380-Pro	LCD	140x140mm	380°C	p.68



#### **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 <sup>A</sup> / MS-H-Pro <sup>T</sup> / MS-H-Pro <sup>-</sup> / MS-H-S/ MS-H340-S	MS-H380-Pro/ HP380-Pro	MS-H280-Pro	MS-H-S10	Magnetic Stirrers (none heating models)
	Chemical Synthesis						
	Biochemical Drugs						
Pharmaceutical	Medicine Testing						
	Drug Formulation	•	•				
	Petrochemical Industry						
	Inorganic Chemical Synthesis	•	•				
	Organic Chemical Synthesis	•	•				
Chemical Industry	Daily Use Chemical Industry	•	-				
	Painting/Rubber/ Plastic	•	-				
	Fertilizer/Pesticide						
	Water Quality Analysis				-		-
Environmental	Pesticide Residue Testing				-	-	-
	Chemical Pollution Analysis				•	-	-
	Basic Chemical Experiments				•	-	-
Research &	Material Analysis			•		-	-
Education	Liquid Mixing			•		-	•
	Chemical Synthesis						
	Food Additive	-		-	•		
Food Industry	Dairy Products	-		-	-		
	Nutrition Analysis	-		-	-		
	Cell Culture						
Biological Engineering	Biological Reagents		•	•			
	Biochemistry			•			



#### **Homogenizer series**

Image	Model	Speed Range	speed levels	Working volume	Max. viscosity	Page
	D160	8000-32000rpm	10stage	0.1-250mL	5000Pas	P.79
	D500	10000-30000rpm	6stage	10-40000mL	10000Pas	P.80

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:**

lmage	Models	Max. Stirring Quantity(H <sub>2</sub> O)	Constant Speed	Display	Speed Range	Max. Torque	Viscosity Max.	Page
	OS20-Pro	20L	YES	LCD	50-2200rpm	40N • cm	10000mPa⋅s	P.83
	OS20-S	20L	NO	LED	50-2200rpm	40N • cm	10000mPa • s	P.84
	OS40-Pro	40L	YES	LCD	50-2200rpm	60N ⋅ cm	50000mPa • s	P.83
	OS40-S	40L	NO	LED	50-2200rpm	60N • cm	50000mPa • s	P.84
	OS70-Pro	70L	YES	LCD	50-1100rpm	300N • cm	100000mPa • s	P.83





- 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°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





- 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, [H <sub>2</sub> O]	30L	20L	10L
Max. magnetic bar[length]	80mm	80mm	80mm
Speed range	100-1500rpm, resolution±1rpm	100-1500rpm, resolution±1rpm	0-1500rpm
Speed display	LCD	LCD	Scale
Temperature display	LCD	LCD	LED
Heating temperature range	Room Temp500°C, increment 1°C	Room Temp550°C, increment 1°C	Room Temp550°C, increment 5°C
Temperature control accuracy	±1°C(<100°C)±1%(>100°C)	±1°C(<100°C) ±1%(>100°C)	±10°C
Overheating protection	540°C	580°C	580°C
Temperature display accuracy	±0.1°C	±0.1°C	±1°C
External temperature sensor	PT1000(accuracy ±0.2°C)	PT1000(accuracy ±0.2°C)	PT1000(accuracy ±0.2°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











- Enhanced magnets and powerful motors for outstanding performance in the stirring of viscous liquid.
- Smooth acceleration and deceleration for stable running without spillage
- Timer control from 1 minute to 99 hours and 59 minutes. When the time countdown completes, it will keep stirring but turn off heating to keep the sample safe from heat damage.
- Three heating modes for different demands: A) Fast heating; B) Standard heating; C) Steady heating.
- "HOT" warning flashes on the LCD display if the work plate temperature is above 50 °C after the user turn off the power switch.
- Two independent safety circuits keep monitoring the instrument. When overheating is detected and the sensor malfunctions, it will stop heating and sound alarm; When short circuit is detected, it will cut off the power to ensure the human safety.
- Can be connected to PC with remote control.



MS-H-Pro <sup>M</sup>
Ø135mm (5 inch)
Aluminum with ceramic coating
Brushless DC motor
1
20L
80mm
15W
100-1500rpm
LCD
LCD
Room temperature ~ 340°C, increment 1°C
±1°C(<100°C), ±1%(>100°C)
420°C
0.1°C
PT1000 (accuracy±0.2°C)
50°C
RS232
IP21
1min~99h59min
18W
10W
720W
600W
100~120/200~240V, 50/60Hz
260x280x100mm
2.8kg
5~40°C, 80% RH



## MS-H-PRO<sup>A</sup>

#### **LCD Digital Magnetic Hotplate Stirrer**

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

**Digital Magnetic Hotplate Stirrer** 

## MS-H-Pro<sup>t</sup>

**LCD Digital Magnetic Hotplate Stirrer with Timer** 

**Analog Magnetic Hotplate stirrer** 



- 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 H<sub>2</sub>O 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<sup>⊤</sup> only)
- High-resolution LCD display shows actual temperatures and speed (MS-H-Pro<sup>™</sup> displays the time)
- External temperature control is possible by connecting the temperature sensor (PT 1000) with accuracy at  $\pm 0.2$ °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 exposion-proof
- · Fully enclosed aluminum alloy housing with good heat dissipation performance and reliable protection capability





















## 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 H<sub>2</sub>O at 5L





## MS-H280-Pro

#### **LED Digital Magnetic Hotplate Stirrer**

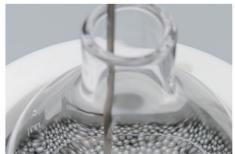
DLAB MS-H280-Pro is a perfect hotplate stirrer for handling small volume task and daily applications, with maximum temperature of 280  $^{\circ}$ C

- 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  $\pm 0.2^{\circ}$ C
- LED display shows temperature and stirring speed
- "HOT" warning flashes if work plate temperature is above 50°C

Specifications	MS-H-Pro <sup>A</sup>	MS-H-PRO+	MS-H-PRO <sup>T</sup>	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 <sub>2</sub> 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 temp340°C, increment 1°C	Room Temp340°C, increment 1°C	Room Temp340°C, increment 1°C	Room Temp340°C	Room Temp-380°C	Room Temp-280°C
Heating liquid temperature control accuracy	±1°C(<100°C) ±1%(>100°C)	±1°C(<100°C) ±1%(>100°C)	±1°C(<100°C) ±1%(>100°C)	-	±1°C(<100°C) ±1%(>100°C)	±1°C (<100°C) ±1% (>100°C)
Overheating temperature protection	420°C	420°C	420°C	420°C	420°C	320°C
Temperature display accuracy	±0.1°C	±0.1°C	±0.1°C	-	±0.1°C	±1°C
External temperature sensor	PT1000 (accuracy±0.2°C)	PT1000 (accuracy±0.2°C)	PT1000 (accuracy ±0.2°C)	-	PT1000 ( accuracy±0.2°C )	PT1000 ( accuracy±0.2°C )
"Hot" warning	50°C	50°C	50°C	-	-	50°C
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	720W	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°C,80%RH	5-40°C,80%RH	5-40°C,80%RH	5-40°C,80%RH	5-40°C,80%RH	5-40°C,80%RH









# MS-H280-B100/250/500/1000& MS-H280-F100/250/500/1000

**LCD Digital Magnetic Stirrer with Electric Heating Mantle** 



Heating Mantle model	HB100	HB250	HB500	HB1000	HF100	HF250	HF500	HF1000
Picture								
Specification	Beaker	Beaker	Beaker	Beaker	Flask	Flask	Flask	Flask
Capacity	100mL	250mL	500mL	1000mL	100mL	250mL	500mL	1000mL
Heating Mantle Inner Diameter	54.75mm	72.75mm	89.75mm	118.75mm	72.75mm	89.75mm	118.75mm	144.75mm

#### **Advantages**

- The smart magnetic stirrer can be flexibly set up with inter-changeable heating sleeves for 100mL, 250mL, 500mL, 1000mL round-bottom flask, or 100mL, 250mL, 500mL, 1000mL flat bottom beakers.
- Even more flexible configurations: as one heating magnetic stirrer, or as one heating sleeve plus one magnetic stirrer.
- Temperature self calibration function for higher temperature accuracy.
- Heating sleeve made of high-quality Aluminum silicate fiber cotton with accurate temperature control, uniform heating and corrosion resistance.
- Strengthened magnetic fields with enhanced stirring power.
- Fireproof metal outcast with higher safety level.
- Explosion-proof DC brushless motor free of maintenance and spark, and with long service life.
- The "HOT" warning will flash if the work plate temperature is above 50°C even when the hotplate is turned off, as long as the power cable is connected.
- Two independent safety circuits are designed to continuously monitor the equipment. When the sensor
  malfunctions and overheating occurs, an error code will be generated and the stirrer will stop heating. When the
  first safety circuit is shorted, the second safety circuit will cut off the power supply to ensure the safety of the
  operator

#### **Applications**

Magnetic stirrer with heating sleeve is a very popular product for laboratories in scientific research, industry and mining, food processing, biochemistry, agriculture, petrochemical, pharmaceutical, and educational aspect. It is used for heating and incubation of liquids at a certain temperature. It provides fast and uniform heating with highly precise temperature control and strong stirring power. It can serve as a magnetic stirrer with heating sleeve, or as a magnetic stirrer and a heating sleeve.



## **Specification**

Model number	MS-H280-B100/250/500/1000	MS-H280-F100/250/500/1000
Motor type	Brushless DC motor	Brushless DC motor
Speed range [rpm]	200-1500rpm	200-1500rpm
Speed control accuracy [rpm]	±20rpm	±20rpm
Speed display	LCD	LCD
Temperature display	LCD	LCD
Temperature control range [°C]	25-280°C	25-280°C
"Hot" warning	50°C	50°C
Overheat protection [°C]	420°C	420°C
Temperature display accuracy [°C]	±0.1°C	±0.1°C
Heating liquid temperature control accuracy	±1°C(<100°C), ±1%(>100°C)	±1°C(<100°C), ±1%(>100°C)
External temperature sensor	PT1000 (accuracy ±0.2°C)	PT1000 (accuracy ±0.2°C)
Protection class	IP21	IP21
Motor input power [W]	1.8W	1.8W
Heating power [W]	210W/240W/380/440W	210W/240W/380/440W
Voltage, Frequency	100-120V,60Hz;200-240V,50Hz	100-120V,60Hz;200-240V,50Hz
Dimension [WxDxH]	295X160X160mm	295X160X160mm
Weight	3.7Kg	3.7Kg
Permissible ambient temperature	5-40°C	5-40°C
Permissible ambient humidity	80%	80%
Compatible containers	100mL、250mL、500mL、 1000mL flat bottom beakers	100mL、250mL、500mL、 1000mL round bottom flasks











## MS-H340-S4

## LCD 4-Channel Digital Magnetic Hotplate Stirrer



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

- 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

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 <sub>2</sub> 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-H280-S4/ MS-M-S4/ MS-H280-S6/ MS-M-S6

#### 4/6 Channel LCD Digital Hotplate Magnetic Stirrer

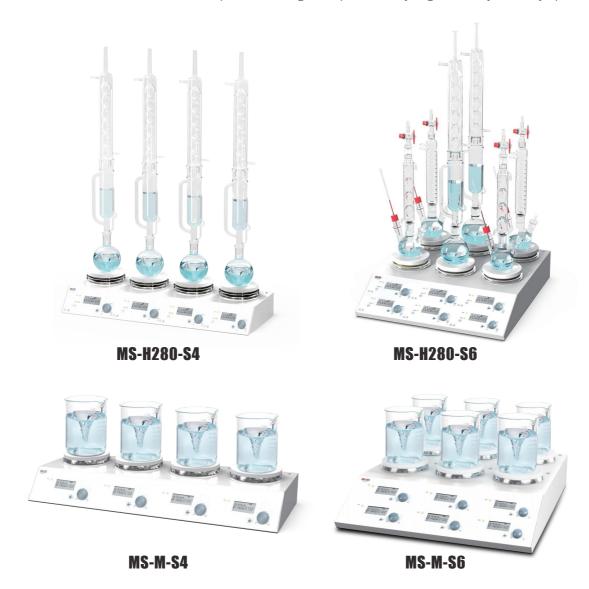


- 4/6 channels with independently control of start/stop, temperature, speed and display for better parallel experiment control.
- Ceramic coating aluminum work plate with fast heat transmission and strong resistance to corrosion.
- Powerful, rapid heating with accurate PID temperature control
- Spark-free DC brushless motor with extended life and no maintenance
- Compatible with various heating block or reaction vessels for a variety of application scenario
- Ultra space-saving with 4/6 channel integrated in one instrument
- "HOT" warning flashes on the LCD display if the work plate temperature is above 50°C after the user turn off the power switch.
- Two independent safety circuits keep monitoring the instrument. When overheating is detected and the sensor malfunctions, it will stop heating and sound alarm; When short circuit is detected, it will cut off the power to ensure the human safety.
- Reliable safety mechanism, compliant to IEC61010-1\UL61010-1\BSEN61010-1\CAN\CSA-C22.2NO.61010-1 and all other safety regulations of laboratory heating devices, competent with tasks without human surveillance.



## **Applications**

The 4/6 channel hotplate magnetic stirrers are designed for parallel experiment and multiple parameter optimization, thus can serve as handy tools for Kjeldahl nitrogen determination, Soxhlet extraction and parallel synthesis, etc. They are ideal choices for test laboratories in food, animal feed, textile, soil, sewage, water treatment, pharmaceutical, polymerization, petroleum products, resin and plastic sectors. The user can handle 4 or 6 tests at the same time with stable performance, good reproducibility, high accuracy and easy operation.



The design of 4/6 channel hotplate magnetic stirrers aim to turn your laboratory into a space-saving, safe, highly efficient, tidy and neat benchmark among peers. They are well recognized by higher education, pharmaceutic manufacturer, biotech company, research institute and food manufacturer as an eco-friendly magnetic stirrer for synthesis.



Specifications	MS-H280-S4	MS-M-S4	MS-H280-S6	MS-M-S6
Work plate dimension	Ø134mm	Ø134mm	Ø134mm	Ø134mm
Work plate material	Aluminum with ceramic coating	Aluminum with ceramic coating	Aluminum with ceramic coating	Aluminum with ceramic coating
Motor type	Brushless DC motor	Brushless DC motor	Brushless DC motor	Brushless DC motor
Motor rating output	5WX4	5WX4	5WX6	5WX6
Heating power	600WX4	-	600WX6	-
Total power	605WX4	5WX4	605WX6	5WX6
Voltage, Frequency	100-120V,60Hz; 200-240V,50Hz	100-240V,50/60Hz	100-120V,60Hz; 200-240V,50Hz	100-240V,50/60Hz
Stirring positions	4	4	6	6
Max. stirring quantity (H2O)	3LX4	3LX4	3LX6	3LX6
Max. stirring quantity (H2O) per channel	3L	3L	3L	3L
Max. magnetic bar [length]	40mm	40mm	40mm	40mm
Speed range	200-1500rpm	200-1500rpm	200-1500rpm	200-1500rpm
Speed control accuracy [rpm]	±20	±20	±20	±20
Speed display	LCD	LCD	LCD	LCD
Temperature display	LCD	LCD	LCD	LCD
Heating temperature range	25-280°C	-	25-280°C	-
Overheating protection	420°C	-	420°C	-
Temperature display resolution	0.1°C	-	0.1°C	-
Temperature control accuracy	±1°C(<100°C), ±1%(>100°C)	-	±1°C(<100°C), ±1%(>100°C)	-
External temperature sensor	PT1000 (accuracy±0.2°C)	-	PT1000 (accuracy±0.2°C)	-
IP protection class	IP21	IP21	IP21	IP21
Dimensions (WxDxH)	701X265X127mm	701X265X127 mm	564X523X127 mm	564X523X127 mm
Weight	8.7Kg	8.7Kg	12.7Kg	12.7Kg
Permissible ambient temperature and humidity	5~40°C, 80% RH	5~40°C, 80% RH	5~40°C, 80% RH	5~40°C, 80% RH











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 temp120°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



- 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  $\pm 0.2^{\circ}$ 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 Temp500°C, increment 1°C
Temperature control accuracy	±1°C (<100°C)±1%(>100°C)
Safety temperature	540°C
Temperature, time display	LCD
Timer function	1min-99h59min
Temperature display accuracy	±0.1°C
External temperature sensor	PT1000(±0.2°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
Permissibleambient 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 Temp550°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

- 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  $\pm 0.2^{\circ}$ C
- Work plate provides excellent chemicalresistant performance and most efficient heat transfer
- "HOT" warning flashes when the workplate temperature is above 50°C





- 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 temp380°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 H<sub>2</sub>O up to 10L
- Ceramic work plate provides excellent corrosion resistance

## 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  $H_2O$  at 5L







MS-S



MS6-Pro

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 <sub>2</sub> 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°C, 80%RH	5-40°C, 80%RH	5-40°C, 80%RH



# MS-PA LED Digital Magnetic Stirrer

# MS-PB Magnetic Stirrer

- Digital speed control within the range of 0-1500rpm
- Maximum stirring quantity of  $H_2O$  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 <sub>2</sub> O]	3L	3L
Max.magnetic bar[length]	50mm	50mm
Speed range	200-1500rpm	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	100-240V, 50/60Hz	100-240V, 50/60Hz
Dimension[WxDxH]	150x260x80mm	150x260x80mm
Weight	1.8kg	1.8kg
Permissibleambient temperature and humidity	10-40°C,80%RH	5-40°C,80%RH









MS-T-S15

**15-Position magnetic stirrer** 

#### **Features**

• LCD display for precise speed and time control.

• Maintenance free DC brushless motor for long life and high stirring power.

• Aluminum laser engraving work plate surface, anti-abrasive, skid and corrosion proof

• Strong magnets ensure fast and intense stirring

• 15 stirring positions are divided into 3 independent groups and each group can be controlled respectively at different speeds and with different timer settings.

• Buzzer function: When the time countdown ends, the buzzer will remind the user by sound.

Specifications	MS-T-S15	
Work plate Dimension [WXD]	460x304mm	
Work plate material	Aluminum	
Motor type	DC brushless	
Stirring positions	15	
Max. stirring quantity [H <sub>2</sub> O]	0.4Lx15	
Max. magnetic bar[length]	40mm	
Speed control accuracy	±10rpm	
Speed 、Time display	LCD	
Speed range	100-1500rpm	
Timer function	1min-99h59min	
Protection class	IP21	
Power	54W	
Voltage ,Frequency	100-240V,50Hz/60Hz	
Dimension [DxWxH] [mm]	615x307x90mm	
Weight	9.2kg	
Permissible ambient temperature and humidity	5-40°C,80%RH	



0.4Lx15



100-1500rpm



Timer



Skid resistance



Multiple position



Brushless DC motor









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[H₂O]	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°C, 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 <sub>2</sub> O]	0.8L
Max.magnetic bar[length]	40mm
Speed range	15-1500rpm
Protection class	IP21
Output Power	3W
Power	5W
Voltage,Frequency	100-240V, 50/60Hz
Dimension[WxDxH]	175x120x15mm
Weight	0.3kg
Permissibleambient temperature and humidity	5-40°C,80%RH



### **Features**

- Speed range 15 to 1500rmp
- 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**

DLAB 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 vourself.
- Maintenance free brushless DC moto.
- An economical choice of a reliable & durable magnetic stirrer with an electrode holder for stable & powerful stirring ability.



DUAB



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 <sub>2</sub> 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	100-240V,50/60Hz or DC 12V	100-240V,50/60Hz or DC 12V		
Dimension [WxDxH]	150x144x54mm	150x145x50mm		
Weight	0.3Kg	0.3kg		
Permissible ambient temperature and humidity	5-40°C, 80%RH	5-40°C, 80%RH		



- It is recommended to use the beads with all full ranges Dlab hotplate magnetic stirrers
- Place the external temperature sensor in the hole on the heating bath and ensure that the probe is submerged within  $1/2\sim1/3$  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



Cat. No.	Description	MS10-H500-PRO	MS7-H550-Pro MS7-H550-S	MS-H-Pro <sup>A</sup> MS-H-Pro <sup>T</sup>	MS-H340-S4	MS-H-S	MS-H280-Pro	MS-H380-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, 4mL reaction vessel, Ø15.2mm, 20mm depth	•	•	•	•	•	•	•
18900003	Purple quarter pie, 4 holes, 20mL 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 Vertical bar length: 45cm, stents length: 25cm, Stem diameter:10cm							
18900540	Support clamp of PT1000 Vertical bar length: 35cm, stents length: 18cm, Stem diameter:10cm							

# 5 tirring & Heating

Cat.NO.	Picture	Name of stirrer bars	Size [mm]
18900693		Stirrer bar, cross	Ø5 X 10
18900694		Stirrer bar, cross	Ø10 X 20
18900695		Stirrer bar,cross	Ø9 X 25
18900696		Stirrer bar, cross	Ø10 X 30
18900697		Stirrer bar,cross	Ø11 X 38
18900698		Stirrer bar,cross	Ø20 X 65
18900699		Stirrer bar,Triangular prism	Ø14 X 25
18900700		Stirrer bar,Triangular prism	Ø14 X 50
18900701		Stirrer bar,Triangular prism	Ø9 X 35
18900702		Stirrer bar,Triangular prism	Ø14 X 80
18900703	Only	Stirrer bar, Gear shape	Ø8 X 30
18900704		Stirrer bar,Gear shape	Ø8 X 38
18900705		Stirrer bar,Gear shape	Ø10 X 50
18900706		Stirrer bar, ellipse	Ø10 X 20
18900707		Stirrer bar, ellipse	Ø12 X 25
18900708		Stirrer bar, ellipse	Ø11X 30
18900709		Stirrer bar, ellipse	Ø15X 35
18900710		Stirrer bar, ellipse	Ø20 X 40
18900711		Stirrer bar, ellipse	Ø20 X 50
18900712		Stirrer bar, ellipse	Ø22 X 70
18900713		Stirrer bar, slide round	Ø6 X 25
18900714		Stirrer bar, slide round	Ø6 X 30
18900715		Stirrer bar, slide round	Ø8 X 40
18900716		Stirrer bar,slide round	Ø8 X 50
18900717		Stirrer bar,slide round	Ø10 X 60
18900718		Stirrer bar,slide round	Ø13 X 80
18900719		Stirrer bar,slide round	Ø24 X 159
18900720		Stirrer bar,Eight prism	Ø8 X 20
18900721	201	Stirrer bar,Eight prism	Ø10 X 30
18900722		Stirrer bar,Eight prism	Ø8 X 40
18900723		Stirrer bar,Eight prism	Ø8 X 50
18900724		Stirrer bar,Eight prism	Ø9 X 90
18900725		Stirrer bar,round	Ø27X57
18900726		Stirrer bar,round	Ø27X108
18900727		Stirrer bar,round	Ø27X159
18900006		Stirrer bar,round	Ø6 X 10
18900007		Stirrer bar,round	Ø8 X 15
18900008		Stirrer bar,round	Ø8 X 20
18900009		Stirrer bar,round	Ø8 X 25
12500005		Stirrer bar,round	Ø6X 30
18900011		Stirrer bar,round	Ø8 X 40
12500004		Stirrer bar,round	Ø8 X 50
18900013		Stirrer bar,round	Ø8X 65
18900014		Stirrer bar,round	Ø13X 80
18900728		Stirrer bar,crown	Ø9X6
18900015		Stirrer bar remover	length of 30cm
18900610		Stirrer bar remover	length of 25cm



18900740 7 inch Magnetic Stirrer transparent safety shield



18900739 5 inch Magnetic Stirrer transparent safety shield



18900741 10 inch Magnetic Stirrer transparent safety shield

#### Cat.NO./Picture

#### RS 1 Set of magnetic stirring bars

Stirrer bar,	round,	Ø6X10,	2	

Stirrer bar, round, Ø6X15, 2 Stirrer bar, round, Ø8X20, 2

Stirrer bar,round,Ø8X25,2

Stirrer bar, round, Ø6X30, 2

Stirrer bar, round, Ø8X40, 2 Stirrer bar, round, Ø8X50, 2

Stirrer bar, round, Ø10X80, 2

Stirrer bar, Triangular prism, Ø14 X 25, 2 Stirrer bar, Triangular prism, Ø14 X 50, 2

#### Cat.NO./Picture



18900732

#### RS 2 Set of magnetic stirring bars

Stirrer bar, round, Ø8X40, 2
Stirrer bar, Eight prism, Ø8 X 40, 2
Stirrer bar, Gear shape, Ø8 X 30, 2
Stirrer bar, slide round, Ø8 X 40, 2
Stirrer bar, ellipse, Ø20 X 40, 2
Stirrer bar, cross, Ø9 X 25, 2
Stirrer bar, crown, Ø9X6, 2
Stirrer bar, round, Ø8X50, 2
Stirrer bar, Triangular prism, Ø9 X 35, 2



18900731

### **Magnetic Stirrer accessories:**

Cat. No.	Picture	Name	Specification	Instructions
18900798		Stainless steel pot Volume-2.5L	Volume:2.5L, Outside diamter:20cm, Inside diameter:18cm, High:11cm, Bottom diameter:18cm	_
18900799		Stainless steel pot Volume-3.5L	Volume:3.5L, Outside diameter:22cm, Inside diameter:20cm, High:12cm, Bottom diameter:20cm	_
18900800		Stainless steel pot Volume-4.5L	Volume:4.5L, Outside diamter:24cm, Inside diamter:22cm, High:13cm, Bottom diameter:22cm	
18900801		Stainless steel pot Volume5.5L	Volume:5.5L, Outside diameter:26cm, Inside diameter:24cm, High:13.5cm, Bottom diameter:24cm	_
18900813		Aluminum alloy and ceramic coating pot	Volume:1.5L, Outside diameter:14cm, High:12cm	_
18900811		Aluminum alloy test tube holder Ø23mm	Ø23mm x10	Used with 18900813
18900812		Aluminum alloy test tube holder Ø33.5mm	Ø33.5mm x 8	Used with 18900813
18900814		DLAB beaker cap	500mL& 1000mL&2000mL	Suitable for 500mL, 1000mL and 2000mL beakers
18204333		Magnetic stirring extension assembly M8	M8	Adaptation: 18900540 support clamp
18204334		Magnetic stirring extension assembly M10	M10	Adaptation: 18900017 support clamp



# 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



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 [H2O]	0.1-50mL (Dispersing shaft DS-160/5)
Working volume [n20]	1-250mL (Dispersing shaft DS-160/10)
Max. viscosity	5,000mPas
Material of Dispersing Shaft	SS 316L stainless steel, PTFE
Noise Level	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



#### 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-160/7 Cat. No.18900815

Volume 1-150mL Max. Circum. Speed 10m/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





# D-500

#### **High Shear Homogenizer**

The high shear homogenizer D500 is applicable to various tasks from sample preparation to formulation study. The motor drives the rotor to rotate at high speed, and the sample is homogenized or dispersed by the gap between the rotor and stator, usually in a short period of time.



- High quality 316L stainless steel with corrosion and autoclave resistance
- Rotor with simple design can be dismounted, cleaned, and sterilized conveniently
- 6 speed levels
- Applicable for sample with viscosity up to 10000mPa s
- Replaceable rotors and stators sharing the same shaft, cost-effective
- Automatic overload protection mechanism maximizes the working life of motor.
- Smooth motor start, stable acceleration without spillage risk

## **Applications**

Widely applied for histocyte lysis, cell homogenization, emulsion, nanometer scale dispersion process in biology, pharmaceutical, genetic and pathology study, diary product or fruit homogenization, polymerization reaction, production of fragrance, cosmetics, textile auxiliary, food, ink, paints, asphalt, fine chemicals, agricultural chemicals, and analysis in mineral exploration, environmental protection and energy resource exploration.

- Routine homogenization, emulsion, depolymerization, dispersion application
- Disperse substance to form suspension and emulsion
- Disperse pigment and resin
- Disperse animal or human tissue into various solution
- Facilitate the dissolve of solid substances
- Sample preparation for quality control test
- Animal or plant cell lysis
- Emulsion, cream cosmetics, and food formulation study
- Extraction of active pharmaceutical ingredient from pills and tablets

Specifications	D-500
Speed range	10000-30000rpm
Max linear velocity	22.7-36m/sec
Speed Level	6 stage
Working volume	10-40000mL
Max. viscosity	10000mPa • s
Material of dispersing shaft	SS 316L stainless steel, PTFE
Noise Level	79dB(A)
Protection class	IP20
Voltage, frequency	110-120V/60Hz, 220-240V/50-60Hz
Power	500W
Motor type	AC carbon brush motor
Dimension [WxDxH]	75x75x280mm
Weight	1.7kg
Permissible ambient temperature and humidity	0-40°C, 85%RH



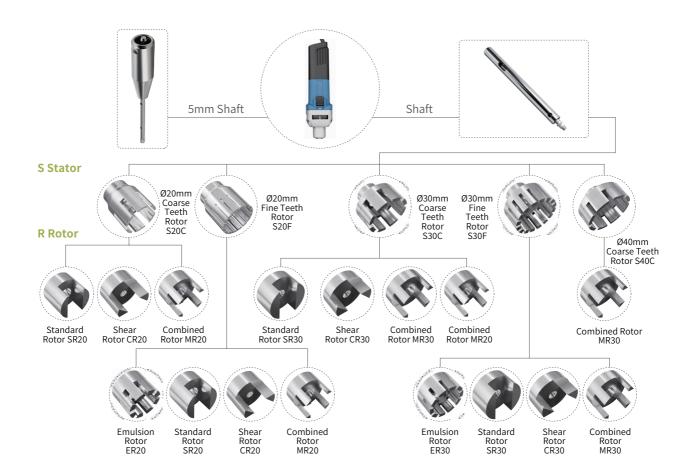
# **Dispersion Head Selection Guide**

Material: All dispersion head components are made of high quality 316L stainless steel to ensure the mechanical performance while rotating at high speed of 30000rpm.

Bearing: Made of excellent material, the bearing is sturdy, durable and corrosion resistance. Its mechanical performance and chemical characteristics are stable.

Easy to clean: The dispersion head is designed to be easily dismantled and thus cleaned. The components can be cleaned manually or automatically, and can be autoclaved. Even the precision components can be removed to clean.









DS-500/1 Cat No.18201331

Solid and liquid dispersion Volume 10-5000mL Max. circum. Speed 22.7m/sec General purpose Emulsion granularity range 1-10µm Suspension granularity range 10-50µm



DS-500/2 Cat No.18201332

Emulsion Volume 10-5000mL Max. circum. Speed 22.7m/sec General emulsion purpose Emulsion granularity range 1-10μm Suspension granularity range 10-50μm



DS-500/5 Cat No.18900117

Small amounts of solid and liquid dispersion Volume 1-50mL
Max. circum. Speed 5.8m/sec
Compatible with 5mm stator and 3.8mm rotor
Special design for 1-50mL tissue
homogenization, mixing and suspension in
Eppendorf tube, tube strip and centrifuge
tubes for clinical and diagnostic application

Stato	r & Rotor	Purpose	Working Volume	Max. circum. Speed	Rotor Dia.	Stator Dia.	Min./Max.	Granularity (µm)  Suspension Emulsion		Application
Comb	inations	rurpose	mL	m/s	mm	mm	Immersion Depth			Application
18201331	SS20CSR20	Solid-liquid mix	10-5000	23.5	15	20	40/170	10-50	1-10	P,CI,PC,SD
18900205 18900215	S20C CR20	Fiber	10-5000	23.5	15	20	40/170	10-50	1-10	SP,M,F,PT,TI
18900205 18900216	S20C MR20	Solid-liquid mix	10-5000	23.5	15	20	40/170	10-50	1-10	CI,PI
18201332	SS20FER20	Emulsion	10-5000	23.5	15	20	40/170	10-50	1-10	SP,PI,PT,P
18900206 18900215	S20F CR20	Fiber	10-5000	23.5	15	20	40/170	10-50	1-10	SP,BT,M,F,PT,TI
18900206 18900216	S20F MR20	Solid-liquid mix	10-5000	23.5	15	20	40/170	10-50	1-10	CI,C,PI,F,PT,PC
18900213 18900216	S30C MR20	As stirring paddle	250-20000	36.1	15	30	40/170	High spee	d mixing	CI,F,SP
18900213 18900208	S30C SR30	Solid-liquid mix	100-8000	36.1	23	30	40/170	5-25	1-5	SP,M,F,PT,P
18900213 18900209	S30C CR30	Fiber	100-8000	36.1	23	30	40/170	5-25	1-5	SP,M,F,PT,P
18900213 18900229	S30C MR30	Solid-liquid mix	100-8000	36.1	23	30	40/170	5-25	1-5	CI,PI
18900228 18900208	S30F SR30	Solid-liquid mix	100-8000	36.1	23	30	40/170	5-25	1-5	SP,PI,PT,P
18900228 18900212	S30F ER30	Emulsion	100-8000	36.1	23	30	40/170	5-25	1-5	SP,PI,PT,P
18900228 18900229	S30F MR30	Solid-liquid mix	100-8000	36.1	23	30	40/170	5-25	1-5	CI,C,P,F,DT,TI
18900214 18900229	S40C MR30	As stirring paddle	1000-40000	36.1	23	40	40/170	High speed	d mixing	CI,F,SP
18900117	SS5CSR5	Small amount solid-liquid mix	1-50	6.3	4	5	40/60	10-50	1-10	BT,M

#### Note:

BT: Biotech; F: Food; P: Pharmaceutics; C: Cosmetics; M: Medicine Analysis; PC: Petroleum Chemistry; PT: Paper and Pulp Industry; SP: Sewage Treatment; CI: Ceramic Industry; CH: Chemical Industry; PI: Paints Industry; TI: Tabacco Industry

The common combinations of rotor and stator are listed in the table above. Dispersion head can be mounted on the homogenizer main body and fixed on the holder with fixtures. All the components of dispersion head can be sterilized with all usual methods (including chemicals, autoclave, etc.)



Specifications	OS20-Pro	OS40-Pro	OS70-Pro
Max. stirring quantity[H2O]	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°C,80%RH	5~40°C,80%RH	5~40°C,80%RH
Data interface	RS232	RS232	RS232



# 0\$20-\$/0\$40-\$

### **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

#### **Set of Overhead Stirrer tools**

#### Cat.No. 18900743



Contains one vertical rod, six stirring blades, Such as Propeller stirrer, Paddle stirrer, Centrifugal stirrer, Flat-blade stirrer, Radial-flow stirrer, Anchor stirrer and Disassembling tool

Specifications	OS20-S	OS40-S	
Max. stirring quantity[H <sub>2</sub> 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[WxHxD]	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°C,80%RH	5~40°C,80%RH	

#### **Plate Stands**

#### Universal Plate Stand (for OS20/40/70)

#### Cat. No.18900605

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

#### Grand Plate Stand (for OS70)

#### Cat. No.18900497





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

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





Rotary evaporator is an indispensable equipment for processes of evaporation, concentration, crytallization, 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.

#### **DLAB Rotary Evaporator models:**

Series	Image	Evaporating Flask Volume	Evaporation capacity	Temperature range	Automatic lifting	Display	Page
RE100-Pro	10	50-3000mL	Max.1.56L/h (H20)	RT-180°C	YES	LCD	p.90
RE100-S		50-3000mL	Max.1.56L/h (H20)	RT-180°C	No (Manual lifting)	LCD	p.91
RE200-Pro		20L	Max.4.5L/ h(75% Alcohol)	RT-180°C	YES	LCD	p.88
RE500-E		5L	Max.2L/h (75% Alcohol)	20-100°C	YES	LCD	p.95
RE1000-E		10L	Max.3.8L/h (75% Alcohol)	20-100°C	YES	LCD	p.95
RE2000-E		20L	Max.5L/h (75% Alcohol)	20-100°C	YES	LCD	p.95
RE5000-E		50L	Max.11L/h (75% Alcohol)	20-100°C	YES	LCD	p.95



# 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
- The connector device allows for easy and quick installation of the evaporating flask
- 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.









#### **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
- Water & Oil Dath
  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 parential burns personnel burns

Specifications		RE200-Pro		
	Temperature range	Room temp. ~180°C (water and oil bath)		
performance	Temperature control accuracy	Water: ±1°C Oil: ±3°C		
periormance	Rotation Speed	10~150rpm		
	Ultimate vacuum	Less 2.6mbar		
	Evaporation capacity	Max.4.5L/h(75% Alcohol)		
	Temperature control	Micro processer PID control		
	Display	LCD (temperature/speed/clockwise and Anti-clockwise/time		
formation.	Time Setting Range	0-999min		
function	Lift stroke	Motorized 180mm		
	Safety features	Motor over-current protection, earth-leakage protection lifting overload protection, Boil-dry protection, Overheating protection		
	Evaporation flask	Round flask 20L		
components	Receiving flask	Round flask 10L with drain valve		
	Condenser	Two-section vertical triple coil condenser, cooling surface 1.2m²		
	Heating bath size	Ø 450×240mm		
specification	Hose connection	Cooling/suction nozzle outer diameter 16mm, vacuum pump nozzle outer diameter 16mm		
Dimension[D×W×H]  Voltage/Frequency  Power		1160×600×1860mm		
		220V/50/60Hz		
		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
- Condenser (cooling surface 1700cm<sup>2</sup>) with excellent cooling effect
- Ejection mechanism ensures easy removal of evaporating flask
- 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
Evaporating Flask Volume	50-3000mL(Optional Thickened glass axis compatible with 3L evaporating flask)
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: ±1°C oil: ±3°C
Evaporation capacity	Max.1.56L/h(H2O)
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** 

DLAB 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  $\pm 1^{\circ}$ 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
- Condenser (cooling surface 1200/1700cm<sup>2</sup> for selection), speeding up the flow rate of liquid with excellent cooling effect
- Ejection mechanism ensures easy exchange of evaporating flask
- Adjustable immersion angle
- 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
Evaporating Flask Volume	50-3000mL(Optional Thickened glass axis compatible with 3L evaporating flask)
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: ±1°C oil: ±3°C
Evaporation capacity	Max.1.56L/h(H <sub>2</sub> O)
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	1700cm²
18900173	Evaporating flask(NS24/40) Receiving flask(KS35/20)	1000mL	1700cm²
18900166	(COATED)Evaporatingflask(NS29/32) Receiving flask (KS35/20)	1000mL	1700cm²
18900174	(COATED)Evaporatingflask(NS24/40) Receiving flask (KS35/20)	1000mL	1700cm²
18202410	Evaporating flask (NS 29/32) Receiving flask (KS 35/20)	1000mL	1200cm²
18900476	Evaporating flask (NS 24/40) Receiving flask (KS 35/20)	1000mL	1200cm²

ı	Diagonal			
	Cat. No.	Glassware type	Volume	Cooling surface
	18900163	Evaporating flask(NS29/32)Receiving flask(KS35/20)	1000mL	1700cm <sup>2</sup>
	18900171	Evaporating flask(NS24/40)Receiving flask(KS35/20)	1000mL	1700cm²
	18900164	(COATED)Evaporatingflask(NS29/32) Receiving flask (KS 35/20)	1000mL	1700cm²
-	18900172	(COATED)Evaporatingflask(NS24/40) Receiving flask (KS35/20)	1000mL	1700cm <sup>2</sup>

<b>Heating Bath</b>		
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 Lig	
Cat. No.	Description
18900547	heating Bath lid for RE100-S, improve distillation efficency & ensure

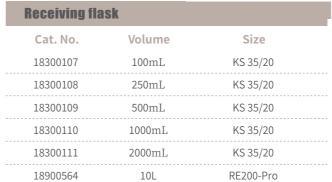


### Glassware





Evaporating f	ask		
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	
18300122	3000mL	NS29/32	
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	
18900204	3000mL	NS24/40	
18900563	20L	RE200-Pro	





125/22	
1	
250-20	

Distilling spice	Distilling spider with 5 flasks(without flask)			
Cat. No.	Volume	Size		
18900194	/	NS 29/32, NS24/29		
18900177	/	NS 29/42, NS24/40		

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





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

Glass axis		
Cat. No.	Volume	Size
18100998	Glass axis	NS 29/32
18203431	Thickened glass axis	NS24/40
18300206	Glass axis	NS 24/40
18204253	Thickened glass axis	NS29/32



# C410 Chemistry-design diapharm 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	50

Noise:50dB

#### **Regulator / Moisture**

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

#### Seals and other accessories

Cat. No.	Description	
18204186	vacuum seal(PTFE+Viton)	
18204187	Evaporation bottle spring Used with 18204186	Ò
18900190	Evaporation flask clip(red) NS29/42	F
18900188	Evaporation flask clip(green) NS24/40	T
18900744	Rotary Evaporator transparent safety shield(RE100-Pro)	d d
18900789	Rotary Evaporator transparent safety shield(RE100-S)	200
18204228	Flask holder(50mL-1000mL)	DIVB
1020 1220	Flask holder(1L-20L)	DVAB



# RE500-E&RE1000-E&RE2000-E&RE5000-E

### **Pilot Scale Digital Control Rotary Evaporator**

### **Features**

- LCD digital display with intuitive interface for operation and control.
- PID controller, precise control, fast setting.
- Stepless automatic motor lifting of the heat bath, smooth and silent.
- The reciprocation rotation function is the most useful for concentration of sample with power or solid particles.
- Double-layer high-efficiency condenser with anti-backflow design, large condensation surface area, strong evaporation capacity is a guarantee of high efficient sample recovery.
- Professional air tightness system design with PTFE sealing ring, featured with heat/corrosion resistance, and high durability.
- Optional vacuum controller to control the vacuum degree freely.
- Keep the outer surface of the heat bath at mild temperature with proprietary heat insulation design to avoid accidental personnel burn injury.
- Equipped with automatic switching valve, continuous collection can be carried out without affecting the negative pressure index of the system and solvent distillation.
- Optional water bath/oil bath heating mode (standard water bath).
- Solution can be continuously fed into evaporating flask.
- Digital display steam temperature sensing device can feed back the solvent steam temperature in real time





# **Specification**

Photos					
Model	RE500-E	RE1000-E	RE2000-E	RE5000-E	
Evaporating flask volume	5L	10L	20L	50L	
Speed range	20-180	20-130	20-130	20-130	
Display		LC	D		
Evaporation Capacity (Max.L/h) For 75% Alcohol	2	3.8	5	11	
Ultimate vacuum		9 ml	bar		
Timer		Ye	?S		
Temperature range		20-10	00°C		
Temperature control accuracy [°C]		±1			
Heating Power (W)	2000	3000	4000	5000	
Temperature Display		LC	D		
Lifting mode		Motor	rized		
Lifting Stroke [mm]	130	200	180	253	
<b>Time Setting Range</b>		0-999	min		
Voltage		220	0V		
Frequency (Hz)		50/	60		
Motor		Brushless	DC motor		
Heat Bath		Teflon c	coating		
<b>Protection Class</b>		IP20			
Dimension(D×W×H)	600*290*720	790*480*1130	900*490*1320	1030*510*1370	
Permissible ambient temperature (°C)		5-4	40		
Permissible ambient humidity	≤80%				
Safety features	Motor over current protection, earth leakage protection, dry heating protection,overheat protection function				

Vertical				
Cat. No.	Glassware type & Volume	Cooling surface		
18900674	5L Main condenser	0.28 m²		
18900639	10L Main condenser	0.49m²		
18900640	10L Secondary condenser	v.+5III		
18900688	20L Main condenser	1.29m²		
18900689	20L Secondary condenser	1.23111		
18900648	50L Main condenser	1.75m²		
18900649	50L Secondary condenser	1.15111	Main condenser	Secondary condenser

Ewo	mo	HOTEL	nes 4	ilor	مالد
EVa	μU	ratii	ЩЦ		M

Cat. No.	Volume	Size
18900677	5L	RE500-E
18900643	10L	RE1000-E
18900690	20L	RE2000-E
18900650	50L	RE5000-E



#### **Receiving flask**

Cat. No.	Volume	Size
18900678	3L	RE500-E
18900644	5L	RE1000-E
18900691	10L	RE2000-E
18900651	20L	RE5000-E



#### Three way bottle

Cat. No.	Volume	Size
18900676	<del></del>	RE500-E
18900642	_	RE1000-E/RE2000-E/RE5000-E



#### **Rotation axis**

Cat. No.	Volume	Size
18204087	<del></del>	RE500-E
18204034		RF1000-F/RF2000-F/RF5000-F



ther accessor	ies			
Cat. No.	Description	Size	Photograph	
18900683	5L Locking clamp	30#		
18900682	5L LOCKING CLAMP	40#		
18900655		50#		
18900656	10L/20L/50L Locking clamp	60#		
18900657		80#		
18204035	5L Vacuum sealing ring	Teflon + fluorine rubber		
18203979	10L/20L/50L Vacuum sealing ring			
10204220	Flask holder(50mL-1L and 1L-20L)	90mm	DIAB	
18204228		160mm	DUAB	



# **VC100**

### Vacuum Controller Reliable,robust,effcient 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°C ~40°C ≤80%RH



Centrifuges



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

#### **List of DLAB models:**

Series	Image	Model	Display	Max. speed(RCF)	Rotor Capacity	Page
Palm Micro	DVB	D1012UA	OLED	10000rpm (7490xg)	44×0.2mL PCR tubes 12×0.5/1.5/2mL+ 4PCR8-Strips	p.102
Centrifuge		D1008	-	7000rpm (2680×g)	$8\times0.2/0.5/1.5/2$ mL $0.2$ mL $\times32$ PCR tubes $0.2$ mL $\times4$ PCR8-strips	p.103
High speed Mini	[512 B.	D2012Plus	LCD	15000rpm (15100×g)	12×0.2/0.5/1.5/2mL	p.104
Centrifuge	\$1. 9 DOS	D2012S	LCD	15000rpm (15100×g)	12×0.2/0.5/1.5/2mL	p.105
High speed Refrigerated Micro Centrifuge		D1524R	LCD	15000rpm (21380×g)	24×0.2/0.5/1.5/2mL 36×0.5mL 4×PCR-8 strips	p.106
High speed Micro Centrifuge	DES A B	D3024	LCD	15000rpm (21380×g)	4×PCR-8 strips 12×5mL(cone bottom) 18×5mL(round bottom)	p.107
Hematocrit	0.0	DM1424	LCD	12000 rpm (13680×g)	24×capillary tubes	p.110
Centrifuge	No.	DM1224	LCD	12000 rpm (13680×g)	24×capillary tubes	p.110
Low-speed Centrifuge	Total Marie	DM0412	LCD	4500rpm (2490×g)	8×15mL 12×1.5-5/7/10mL	p.112
Multi-Purpose low		DM0424	LCD	4000rpm (2500×g)	Angel: 8×15mL Angel: 12×1.5-5/7/10mL Angel: 24×15mL Swing: 6×15mL Swing: 4×50mL	p.114
Speed Centrifuge		DM0408	LED	4000rpm (1900×g)	Angel: 8×15mL Angel: 12×1.5-5/7/10mL	p.114
Low-speed Centrifuge	DOI DOINGE	DM0506	LCD	5000rpm (2600×g)	6×1.5-5/7/10/15mL	p.116
Multi-Purpose Low-speed Centrifuge	100	DM0636	LCD	6000rpm (4100xg)	60×2mL 18×5mL 30×15mL 8×50mL 12×PCR-8 strips 4×Deep Well Plates 8×PCR Microplate or ELISA Microplate	p.117

# **D1012UA**

### **High Speed Palm Micro Centrifuge**

# **Applications**

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



### **Features**

- Max.Speed 10000rpm (7490xg);
- OLED display, may switch speed and time;
- DC motor drive, smooth and quiet operation;
- Safe, endurable and robust rotor with clamp locking design, easy to operate;
- Wide voltage technology: the speed is not affected by voltage fluctuations, high speed accuracy;
- Compatible with 0.5/1.5/2mL×12 tubes+4×PCR8 strips, 0.2mL×44 PCR tubes;
- Screen buttons can adjust the start/stop of the motor, supports both soft braking and instant stop modes;
- Simple appearance and structure, only weight 1.5Kg;

SA02P2	Cat.No.19400132
0.2mL rotor ada Used with FA12-: 12pcs/pk	

SA05P2	Cat.No.19400133
0.5mL rotor adapter	
	_
Used with FA12-2	_

Specifications	D1012UA
Speed Range	2000-10000rpm,increment:1000rpm
Max.RCF	6708×g-1.5/2mL; 6596-7490×g-PCR8 strips;
Rotor Capacity	0.2mL×44 PCR tubes 0.5/1.5/2mL×12+ 0.2mLPCR 8 strips×4
Run Time	10s-20min
Display	OLED
Acceleration/Deceleration	1 ↑ /2 ↓
Driving Motor	DC motor
Power	AC100-240V/50Hz/60Hz 40W
Noise Level	≤58dB
Dimension (DxWxH)	210×180×130mm
Weight	1.5kg



# 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 guiet operation (noise level ≤45dB)
- Accelerates and brakes in seconds
- Safe, endurable and robust rotor with clamp locking design
- Compatible with 2mLx8 and PCR8x4 rotors
- · Quick-change rotor without any tool

Specifications	D1008
Max. Speed	7000rpm
Max. RCF	2680×g
Rotor Capacity	0.2/0.5/1.5/2mL×8 0.2mL×32PCR tubes 0.2mL×4PCR8-strips
Run Time	Continuous operation
Driving Motor DC motor	DC motor
Power Requirements	AC100-240V/50Hz/60Hz 20W
Noise Level	≤45dB
Dimension $[D \times W \times H]$	160x170x122mm
Weight	0.5kg

#### **Available rotors**

#### A4-PCR8P

Cat.No.19201165

Max. speed:7000rpm Max. RCF:2680×g Rotor capacity: 0.2mL×32PCR tubes,

0.2mL×4PCR8-strips

Rotor material: High strength plastic



#### A8-2P Cat.No.19201164

Max. speed:7000rpm Max. RCF:2680×g Rotor capacity:

 $2mL/1.5mL \times 8,0.2mL \times 8,0.5mL \times 8$ Rotor material: High strength plastic Available rotor adapters:SA02P2, SA05P2

### **Available adapters**

#### SA02P2

Cat.No.19400029

0.2mL rotor adapter Used with A8-2P rotor 8pcs/pk



#### SA05P2

Cat.No.19400026

0.5mL rotor adapter Used with A8-2P rotor 8pcs/pk





Quiet operation



Vibration free

# **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.

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	
$Dimension[D\!\times\!W\!\times\!H]$	255×245×140mm	
Weight	6kg	
Other functions	Speed/RCF switch,Short-time run function,sound-alert function	

#### **Available rotors**



#### A12-2P Cat.NO.19400010

for D2012plus only

Max. speed: 15000rpm Max. RCF: 15100×g Rotor capacity:

 $2mL/1.5mL \times 12,0.2mL \times 12,0.5mL \times 12 \\ Rotor material: High strength plastic \\ Available rotor adapters: A02P2,A05P2 \\$ 

#### **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





# **D2012S**

### **High Speed Mini Centrifuge**

## **Features**

- Pulse operation for fast and convenient quick spins;
- Speed up to 15000rpm (15100xg);
- Brushless DC motor drive quickly to the target speed;
- Smooth and quiet operation (noise≤65dB);
- Automatic door lock and over-speed detection;
- Wide voltage technology: speed is not affected by voltage fluctuations, high speed accuracy;



# **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.

Specifications	D2012S
Max.Speed	15000rpm (300-15000rpm), increment:100rpm
Max.RCF	15100xg
Speed Accuracy	±20rpm
Rotor Capacity	0.2/0.5/1.5/2mL×12;
Run Time	30s-99min
Driving Motor	Brushless DC motor
Safety Devices	Door interlock,over-speed detection, over-temperature detection, automatic intermal diagnosis
Display	LCD
Power	100~240 V, 50/60 Hz; 70W
Noise Level	≤65dB
Dimension (DxWxH)	272mm×260mm×154mm
Weight	6.2Kg
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 7minutes from room temperature to 4°C
- Up to 9 program storage capacity
- 3-layer sealed rotors ensure safe centifugation
- 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×g, step: 10×g
Capacity	1.5/2mL×24,0.2/0.5mL×36, PCR-8 strips×4,5mL×12,5mL×18
Temperature setting	-20°C- 40°C
Run Time	30s-99 min; HOLD (continuous running)
Acceleration and deceleration time	25s↑25s↓
Motor Type	Brushless DC motor
Safety Performance	Dual door lock, over-speed detection, over-temperature detection with Internal diagnosis system.
Power Requirements	Single-phase, 100-120V/200-240V, 50Hz/60Hz.500W
Noise Level	≤56dB
Dimensions[WxDxH]	332 × 553 × 283mm
Weight	30kg
Other functions	Rotation speed/RCF switchover, inching operation, running processindicator, sound alert. Adjustable acceleration/deceleration at 9 levels program storage capacity.



# D3024 High Speed Micro Centrifuge





Brushless DC motor



Wide range of rotors

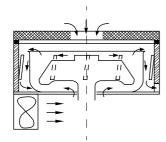
### **Features**

- Double cooling air design ensures fast cooling of the rotor and low energy consumption
- 3-layer sealed rotors ensure safe centifugation
- 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**

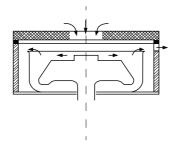
Suitable for numerous biological, chemistry, clinical and research applications including molecular biology, clinical chemistry labs, wide variety of microbiology applications, such as DNA, RNA or protein isolation and many more.





Double cooling air design, enforcing air cooling from both the upper and lower side for the rotor.

#### **Conventional design**



Limited ventilation on the upper side of the rotor



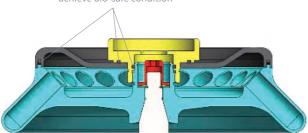
# 108/ Centrifuges

DLAB 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 & D1524R 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 D1524R 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**

DLAB 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	1.5/2mL×24,0.2/0.5mL×36, PCR-8 strips×4,5mL×12,5mL×18	
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	
$Dimension[W \times D \times H]$	280×364×266mm	
Weight	12kg	
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 Cat. No.19400073

#### for D3024 & D1524R

Max. speed :15000rpm Max. RCF:21380 $\times$ g Rotor capacity:5mL $\times$ 18 ( Round bottom )

Rotor material:Aluminum alloy

Biosealing:Yes



### AS12-5V Cat. No.19400070

#### for D3024 & D1524R

Max. speed: 15000rpm Max. RCF: 21380×g

Rotor capacity:  $5mL \times 12$ (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**

DLAB 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	13680×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
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		
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:  $50 \text{mL} \times 6$  or  $15 \text{mL} \times 6$ 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
<b></b> D		16×75	Plug		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  $50 \mathrm{mL} \times 4$ , 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



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 24×15mL, 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, 100-240V,50Hz/60Hz,110W	Single phase, 100-240V,50Hz/60Hz,85W
$Dimension(W \times D \times H)$	364×440×268mm	286×367×227mm
Weight	14.5kg	9.2kg
Noise Level	≤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.19400068

#### for DM0424/DM0408 DM0412

Max.speed: 4000rpm

Rotor capacity:  $8 \times 15 \mathrm{mL}$  or  $12 \times 10 \mathrm{mL}$ Rotor material: High strength plastic



#### **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  $17 \times 120$ mm centrifuge tube,  $13/16 \times 100$ mm 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



### 116/ Centrifuges

## DM0506 Low-speed Centrifuge





### **Available adapters**

A5P17 Cat. No.19500022

 $5 \mathrm{mL}$  adapter, Adapted to  $13 \times 75 \mathrm{mm}$  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	2600×g, increment: 10×g		
Speed accuracy	±20rpm		
Rotor type	6x15mL/10mL/7mL/1.5-5mL		
Run Time	30sec-99min, HD (continuous running)		
Display	LCD		
Preloaded Program	P1/P2		
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		
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	4100xg
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]	570×445×295mm
Weight	36kg
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.



### 118/ Centrifuges

#### SE4-100 (Standard accessory

#### Cat. No.19400041

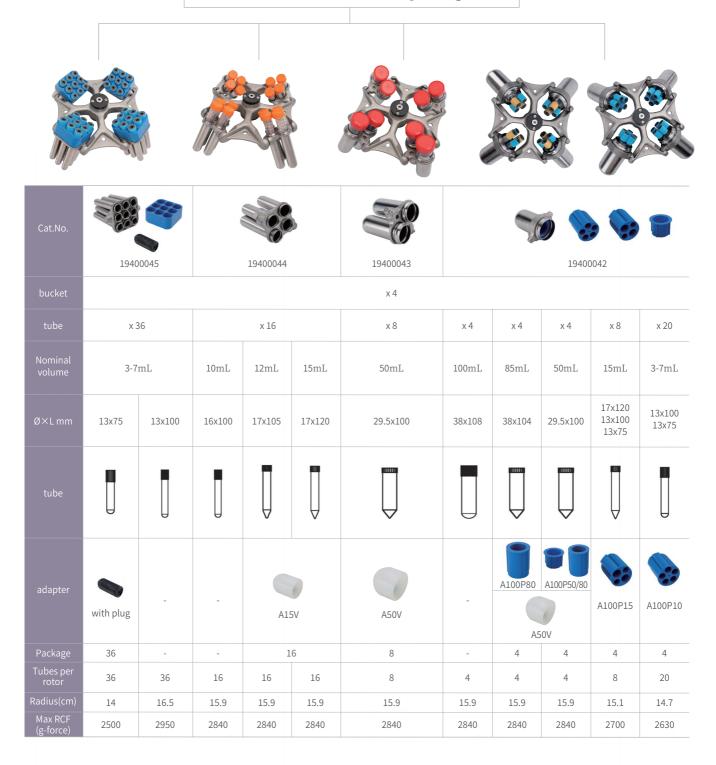
#### for DM0636

Max. speed: 4000rpm Max. RCF: 2950×g

Rotor material: stainless steel body

and adapter





### **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 and

aluminum buckets



### AS6-50V

#### Cat. No.19400038

#### **DM0636**

Max. speed: 6000rpm Max. RCF: 4020×g

Rotor capacity:  $50mL \times 6$  or  $15mL \times 6$ 

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:  $4020 \times g$ Rotor capacity:  $2mL \times 30$ Rotor material: aluminum

Biosealing: Yes





### A8-50 round botton

#### Cat. No.19400039

#### DM0636

Max. speed: 5000rpm Max. RCF: 3960xg

Rotor capacity: 50mL×8 or

15 m Lx 16

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

#### Cat. No.19400040

#### DM0636

Max. speed: 4500rpm Max. RCF: 3210xg

Rotor capacity: 15mL×30

Rotor material: aluminum body and

stainless steel adapter







Mixing



DLAB 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
		MX-S	0~3000rpm	Orbital (touch + continuous modes)	-	p.123
Vortex Mixer		MX-F	3000rpm (fixed)	Orbital (touch + continuous modes)	-	p.125
		MX-E	3000rpm (fixed)	Orbital (touch mode)	-	p.126
Cell disruptor		MX-C	0~3000rpm	Orbital (touch + continuous modes)	8x2mL	p.127
Microplate Mixer		MX-M	0~1500rpm	Orbital (continuous mode)	0.5Kg	p.128
Disk Rotator		MX-RD-Pro	10~70rpm	360° rolling (timer + continuous)	60x1.5mL,16x15mL, 8x50mL, (available for 3 layers)	p.130
Rotisserie Rotator	E N	MX-RL-Pro	10~70rpm	360° rolling (timer + continuous)	48x1.5mL,24x15mL, 24x50mL	p.131
Disk Rotator		MX-RD-E	0~80rpm	360° rolling (continuous)	48x2mL,16x15mL, 8x50mL	p.133
Rotisserie Rotator		MX-RL-E	0~80rpm	360° rolling (continuous)	32x2mL, 20x15mL,16x50mL	p.134
		SK-R30S-E	0~30rpm	30±3° rocking (continuous)	10x10mL, 4x50mL	p.135
Rocking Rotator		SK-R30L-E	0~30rpm	30±3° rocking (continuous)	16x10mL 6x50mL	p.135
		SK-R30D-E	0~30rpm	40±3° rocking (continuous)	32x10mL,12x50mL	p.135
Dollar Mirror		MX-T6-Pro	0~70rpm	360° rocking&rolling (timer + continuous)	4Kg	p.136
Roller Mixer		MX-T6-S+	0~70rpm	360° rocking&rolling (continuous)	4Kg	p.136

DLAB 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
		SK-O330-Pro	32x32cm	LCD	100-500rpm	7.5Kg	p.137
Orbital	Time test	SK-O180-Pro	25x24.5cm	LCD	100-800rpm	2.5Kg	p.137
Shaker	THE STATE OF THE S	SK-O330-M	33.5x33.5cm	LCD	70-400rpm	3Kg	p.138
		SK-0180-S	26.8X26.8cm	LED	40-200rpm	2Kg	p.138
	Tiles text	SK-L330-Pro	32x32cm	LCD	100-350rpm	7.5Kg	p.140
Linear Shaker	SS Test	SK-L180-Pro	25x24.5cm	LCD	100-350rpm	2.5Kg	p.141
		SK-L180-S	26.8X26.8cm	LED	40-200rpm	2Kg	p.141
Rocking Shaker		SK-R330-Pro	30x28.5cm	LCD	10-70rpm	10Kg	p.142
PHAKEL		SK-R1807-S	26.8x26.8cm	LED	10-80rpm	2Kg	p.142
3D Shaker	Total Vivi	SK-D3309-Pro	30x28.5cm	LCD	10-70rpm	5Kg	p.143
Shaker		SK-D1810-S	26.8X26.8cm	LED	10-80rpm	2Kg	p.143



### 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	
$Dimension[W \times H \times D]$	127×130×160mm	
Weight	2.0kg	
Permissible ambient temperature	5-40°C	
Permissible relative humidity	80%RH	
Protection class	IP20	



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**

Adjustable speed model **Accessories** Continuous mode Touch mode (High speed area) (Low speed area) VTI.1 VTI.2 + VT1.3.1 VTI.2 + VT1.3.2 Υ VTI.2 + VT1.3.3 VTI.2 + VT1.3.4 VTI.2 + VT1.3.5 VTI.3 + VT1.3.6 VTI.3 + VT1.3.1 VTI.3 + VT1.3.2 Υ VTI.3 + VT1.3.3 VTI.3 + VT1.3.4 VTI.3 + VT1.3.5 Υ

#### VT1.3.8 tube adapter

for 24 holes test tubes, Ø 10mm (1.5-2mL)



Cat. No.18900395

VT1.3.9 PCR tube adapter

for 56 test PCR tubes, strips of 8, Ø5mm (0.1mL-0.5mL)



Cat. No.18204185

VT1.3.10 tube adapter

for 4 holes test tubes, Ø28mm (50mL)



VT1.3.11 Tube adapter

Cat. No.18900862

12XØ9.8mm+12XØ6.6mm+12XØ5mm (1.5/2.0/0.5/0.2mL)



VT1.3.12 Large Platform Multi-Specimen Test Tube Adapter

Cat. No.18900875

44 holesXØ5mm+55 holesXØ6.6mm+30 holesXØ9.8mm(1.5/2.0/0.5/0.2mL)



VT1.2 Tube holding rod

Cat. No.18900044

used with tube adapters



VT1.3 Universal top plate

Cat. No.18900505

Ø 100mm



PS1.0 Microplate clamp

Cat. No.18204342







### 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
$Dimension[W \times H \times D]$	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 nicelyon 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 otherworks 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



### 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
Capicity	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**

DLAB 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

#### VT1.3.1 tube adapter

Cat. No.18900020

for 48 holes test tubes, Ø6mm



#### VT1.3.2 tube adapter

Cat. No.18900021

for 15 holes test tubes, Ø10mm



#### VT1.3.3 tube adapter

Cat. No.18900022

for 12 holes test tubes, Ø12mm



#### VT1.3.4 tube adapter

Cat. No.18900023

for 8 holes test tubes. Ø16mm



#### VT1.3.5 tube adapter

Cat. No.18900024

for 8 holes test tubes, Ø20mm



### VT1.3.6 Platform pad

Cat. No.18900043

Ø99mm, multiple small tubes and vessels



#### VT1.3.8 tube adapter

Cat. No.18900395

for 24 holes test tubes, Ø10mm



#### VT1.3.9 PCR tube adapter Cat. No.18204185

for 56 test PCR tubes, strips of 8, Ø5mm (0.1mL-0.5mL)



#### VT1.3.10 tube adapter

Cat. No.18900855

for 4 holes, Ø28mm (50mL)



#### VT1.3.11 Tube adapter

Cat. No.18900862

12XØ9.8mm+12XØ6.6mm+12XØ5mm (1.5/2.0/0.5/0.2mL)



### VT1.3.12 Large Platform Multi-Specimen Test Tube Adapter

Cat. No.18900875

44 holesXØ5mm+55 holesXØ6.6mm+30 holesXØ9.8mm (1.5/2.0/0.5/0.2mL)



#### PS1.1 Universal top plate

Cat. No.18900067

Used with tube adapters



### PS1.2 Microplate clamp

Cat. No.18204340



#### PS1.3 Double microplate clamps Cat. No.18204341

Double microplate clamps



#### **Specifications** MX-M Orhital Shaking movement Orbital diameter 4.5mm Max. shaking weight 0.5kg (with accessory) Motor type Brushless DC motor Motor rating input 18W Motor rating output 10W Single microplate: 0-1500rpm Speed range Double microplate: 0-1000rpm Speed display Scale Voltage, Frequency 100-240V,50/60Hz Power 20W Dimension 260×150×80mm Weight 3kg Permissible ambient 5-40°C,80%RH temperature and humidity 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°C,80%RH
Protection class	IP21



### **MX-RL-Pro**

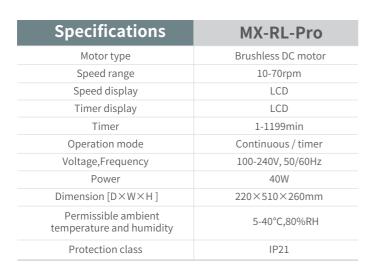
### **LCD Digital Tube Rotator, Horizontal**

### **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



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.











#### 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 $\times$ W $\times$ 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 $\times$ W $\times$ 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 $\times$ D $\times$ 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°C,80%RH	5-40°C,80%RH	5-40°C,80%RH	

### **Accessories Information**



Cat.No.18202835

blood collection tubes on long decks (SK-R30L-E&SK-R30D-E)



Cat.No.18202852

Silicone mattress for 16 × 5~10mL

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



Cat.No.18202846

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



### **Features**

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

### **Applications**

DLAB 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	Brushless DC motor	Brushless 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 $\times$ W $\times$ H]	485×250×100mm	485×250×100mm
Weight	5.1kg	4.5kg
Permissible ambient temperature and humidity	5-40°C,80%RH	5-40°C,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-0330-Pro



SK-O180-Pro



Orbital Motion



Specifications	SK-0330-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-99h59min	1min-99h59min		
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		
$Dimension[W \! \times \! D \! \times \! H]$	370×420×100mm	300×340×100mm		
Protection class	IP21	IP20		
Data connector	RS232	RS232		

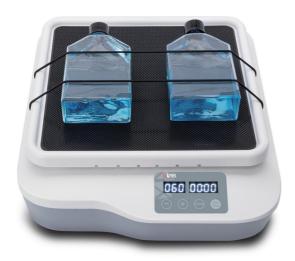


### SK-0330-M

### Fixed Plate LCD Digital Orbital Shaker



## SK-0180-S LED Digital Orbital Shaker



### **Features**

- Double-screen display for time and speed respectively
- 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

### **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.



**Qrbital Motion** 







Multifunctional models (multiple plate are optional)

Specifications	SK-0180-S	SK-0330-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-99h59min	1min-99h59min
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
$Dimension[W \times D \times H]$	294×348×123mm	420×370×100mm
Protection class	IP21	IP21
Work plate Dimension [W x D]	268x268mm	335×335mm



### SK-L330-Pro

### **LCD Digital Linear Shaker**

### **Features**

- Efficient Mixing: Employing a linear reciprocating shaking action ensures thorough and even mixing of samples within containers, enhancing experiment reliability and precision.
- Versatile Capacity: Offering two choices with different load capacities, suitable for experiments of various scales and sample handling needs, catering to diverse experimental requirements.
- User-Friendly Operation: The device is equipped with an independent LCD display, simultaneously presenting speed and time, facilitating an intuitive operation, allowing you to effortlessly oversee the experimental process.
- Broad Speed Range: It encompasses a wide speed range, enabling speed adjustment based on specific experimental demands, ensuring optimal outcomes.
- Reliability: Utilizing a maintenance-free brushless DC motor reduces equipment maintenance needs and extends its operational lifespan.
- Safety Measures: Featuring over-speed detection and protection functions, guaranteeing the equipment operates safely within prescribed parameters, mitigating potential issues.
- Diverse Selection: Providing multiple platform options, accommodating various container types and sizes, augmenting flexibility and diversity.

### **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.







Specifications	SK-L330-Pro
Amplitude	10mm
Max. load capacity (with platform)	7.5kg
Motor type	Brushless DC motor
Motor input power	28W
Motor output power	15W
Speed range	100-350rpm
Speed display	LCD
Timer display	LCD
Time settings range	1min-99h59min
Voltage,Frequency	100-240V, 50/60Hz
Power	30W
Weight	13.5kg
Permissible ambient temperature and humidity	5-40°C,80%RH
$Dimension[W\times D\times H]$	370×420×100mm
Protection class	IP21
Data connector	RS232



### SK-L180-Pro LCD Digital Linear Shaker SK-L180-S

### **LED Digital Linear Shaker**

### **Features**

- Ensure uniform mixing to enhance experiment reliability and accur-
- Provide different load capacities suitable for experiments of varying scales and sample processing, meeting diverse experimental needs.
- Independent display screen, simultaneously showing speed and time, user-friendly operation for easy control of the experiment process.
- Offer a wide range of speed settings that can be adjusted according to specific experimental requirements to ensure optimal results.
- Maintenance-free brushless DC motor for extended lifespan.
- Equipped with safety speed protection features.
- Provide various platform options to accommodate a variety of container types and sizes, increasing flexibility and versatility (SK-L180-Pro).



SK-L180-Pro



SK-L180-S

### **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.



Linear Motion

Specifications	SK-L180-Pro	SK-L180-S
Amplitude	4mm	20mm
Max. load capacity(with platform)	2.5kg	2kg
Motor type	Brushless DC motor	Brushless DC motor
Speed range	100-350rpm	40-200rpm
Speed display	LCD	LED
Timer display	LCD	LED
Time settings range	1min-99h59min	1min-99h59min
Voltage, Frequency	100-240V, 50/60Hz	100~240V,50/60Hz
Power	30W	20W
Motor input power	28W	16W
Motor output power	15W	10W
Weight	8.1kg	3.4kg
Permissible ambient temperature and humidity	5-40°C, 80%RH	5-40°C,80%RH
$Dimension[W \times D \times H]$	300X340X100mm	294X348X130mm
Protection class	IP21	IP20
Data connector	RS232	-



### SK-R330-Pro

**LCD Digital Rocking Shaker** 

SK-R1807-S

**LED Digital Rocking Shaker** 

### **Features**

- Rocking motion angle 9°(R330-Pro) and 7°(R1807-S)
- Two options:
   10kg (R330-Pro)and speed range 10-70rpm,
   2kg (R1807-S) and speed range 10-80rpm
- Double LCDs/LEDs for independent display of time and speed
- Continuous or timer operation mode
- Electronic time switching clock: 1min-99h59min
- Wide range of platforms for use with a variety of vessels(R330-Pro)
- Fixed work plate(R1807-S)
- Simple appearance, save operating space

### **Applications**

Designed for time-dependent and low rpmsensitive shaking applications such as ELISAwashes, enzyme immunoassays, proteinsynthesis, hybridization staining/destaininggels, immune precipitation and Western blots, cell culture, pharmaceutical profiling, etc.



SK-R330-Pro



SK-R1807-S



Rocking Motion

Specifications	SK-R330-Pro	SK-R1807-S
Tilt angle	9°	7°
Max. load capacity(with platform)	10kg	2kg
Motor type	DC motor	DC motor
Motor input power	40W	20W
Motor output power	24W	16W
Speed range	10-70rpm	10-80rpm
Speed display	LCD	LED
Timer display	LCD	LED
Time settings range	1min-99h59min	1min-99h59min
Voltage,Frequency	100-240V, 50/60Hz	100-240V, 50/60Hz
Power	50W	20W
Weight	9kg	3.1kg
Permissible ambient temperature and humidity	5-40°C,80%RH	5-40°C,80%RH
$Dimension[W \times D \times H]$	360×410×200mm	294×348×123mm
Protection class	IP21	IP21



### SK-D3309-Pro SK-D1810-S

### **LCD Digital 3D Shaker**

### **Features**

- Provide a gentle three-dimensional motion shaker at a fixed tilt angle
- Anti slip silicone disc surface, better anti slip effect, and better sample processing effect
- Adjustable rotational mixing speed
- Independent LCD/LED display of time and speed
- Incubator compatible
- Various platform accessories (D3309-Pro)



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



Wide range of accessories



3D Motion



SK-D3309-Pro



SK-D1810-S









Cat. No.	Description	SK-0330-Pro	SK-L330-Pro	SK-R330-Pro	SK-D3309-Pro	SK-0330-M	SK-O180-Pro	SK-L180-Pro	SK-0180-S Multifunctional models
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						•	•	•
18900869	SK330.4 Dish platform with non-slip mat and fixed string(8 pcs), 34X34cm					•			
18900859	SK330.6 Transparent shield, serologic test for syphilis, 41X39.5X10cm	•	•			•			
18900860	SK180.5 Transparent Cover for Syphilis Serum Test,32X32X8.3cm						•	•	
18202852	Silicone mattress for 10 × 5~10mL tubes							-	
18202853	Silicone mattress for 4× 50mL tubes						٠		
18900027	SK330.1, Universal attachment with 4 bars Size: 32x32cm Capacity for flask: 25mLx21pcs, 50mLx15pcs, 100mLx12pcs, 250mLx6pcs, 500x4pcs	•	•	•	•				
18900040	SK330.3 Lengthways roller attachment, Mainly used for separation funnel oscillation extraction applications 500mL*3pcs 250mL*4pcs 100/125mL*4pcs 50mL*5pcs	•	•		•				
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, Mainly used for separation funnel oscillation extraction applications 500mL*2pcs 250mL*3pcs 100/125mL*3pcs 50mL*4pcs						•	•	

Cat. No.	Description	SK-0330-Pro	SK-L330-Pro	SK-R330-Pro	SK-D3309-Pro	SK-0330-M	SK-0180-Pro	SK-L180-Pro	SK-0180-S Multifunctional models
18900036	Bar for SK330.1 universal attachment			-	-				
18900037	Bar for SK180.1 universal attachment						•	•	•
18900280	Connect sticks for double dishes shaker	•	-	-	-	٠	•	•	-
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[9pcs] SK180.2[28pcs]	•	-	-	•		-		•
18900030	Fixing clip for flask volume 50mL, used with SK330.2[9pcs] SK180.2[16pcs]				•				
18900031	Fixing clip for flask volume 100mL, used with SK330.2[9pcs] SK180.2 [16pcs]	•		•	•		•	•	•
18900032	Fixing clip for flask volume 200/250mL, used with SK330.2[4pcs] SK180.2[9pcs]	•		-	•		-	-	
18900033	Fixing clip for flask volume 500mL, used with SK330.2[2pcs] SK180.2[9pcs]								•



## UV-visible spectrophotometer

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

### **Features**



- The shape is professional, concise, friendly and mellow, and the appearance design conforms to ergonomics. The use of high-quality materials, fine craftsmanship, soft texture, showing a good user experience
- Attention to human-device experience, friendly interactive interface, easy for users to operate and detect
- Up to 128 sets of standard curves and 4000 test data can be saved
- Test data is saved in real time to avoid data loss in case of sudden power failure.
- Automatic wavelength calibration and dark current correction
- It can automatically switch the light source and turn off the corresponding light source, so as to prolong the service life of the light source to the greatest extent.
- The instrument has rich functions and can realize various functional operations, and the host can independently complete photometric measurement and quantitative test, kinetics measurement and other functions
- Can be used with automatic cell holder, film holder, tube rack, constant temperature cell holder, reflectivity accessory, variable optical path sample holder, variable angle solid sample holder and other special accessories
- The computer software is designed with single interface and multiple functions, which has friendly interface, simple operation, rich and powerful functions, and fast response speed. Real-time monitoring data change. The unique shortcut toolbar makes the experimental process clear at a glance, which greatly facilitates the use. And can be extended more application functions, such as wavelength scanning, time scanning (kinetics), multi-wavelength scanning, and DNA/protein detection analysis.

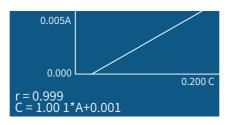
### **Applications**

The spectrophotometer produced by our company refers to the absorbance or transmittance of a substance at a specific wavelength or within a certain wavelength range, carry out qualitative or quantitative analysis on that substance, as well as kinetic experiments, protein or DNA detection, DNA and RNA quantitative analysis, protein quantitative analysis and other applications. It can be widely used in medicine and health, clinical testing, biochemistry, petrochemical industry, environmental protection testing, food hygiene and quality control. It can also be used as a teaching demonstration and experimental instrument for related courses in colleges and universities.

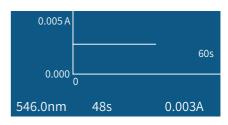
#### Photometry

# 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







item No. 18800331

micro-volume cell holder



item No. 18800332

4 position cell holder(100mm)



item No. 18900333

4 position cell holder(10mm)



item No. 18800334

4 position cell holder(10-50mm)



item No. 18800335

Tube rack(ø8-ø22mm)



item No.

18800336

Cuvette glass/quartz



item No.

18800337

Tungsten lamp



item No.

18800339

Solid Specimen Holder



item No.

18800338

Deuterium lamp