



# DLAB



LIQUID HANDLING

CENTRIFUGES



THERMO CONTROL



DISTILLING & MIXING





## Company Profile

DLAB Scientific Co., Ltd, known as Dragon Lab - Founded in 2002, is now one of the leading companies worldwide for high quality laboratory instruments and equipment for industries, diagnostics and research.

All our products are designed and manufactured in accordance with ISO9001/13485 by our dedicated and experienced R&D Engineering team. Our quality control processes start from the metal processing all the way through to the final inspections of the end products and adhere to worldwide accepted quality standards.

With growing international presence and to create a new corporate identity, we have created a new brand "DLAB". Consequently, Dragon Laboratory Instruments changed to DLAB Scientific, the original manufacturer of bench top equipments. DLAB has subsidiaries in USA as DLAB Scientific Inc. and in India as DLAB Scientific Private Limited.

DLAB Scientific Co., Ltd is committed to become a one-stop partner for distributors worldwide with a growing range of general laboratory instruments. Our products are characterized by reliability, high accuracy and have a highly competitive value along with skilled application and after-sales support.

*"DLAB is always your accessible solution"*



# Contents

03

## Liquid Handling

- Electronic Pipette / 04
- Mechanical Pipettes / 06
- Pipette Fillers / 12
- Pipette Controllers & Pumps / 14
- Stepper / 15
- Electronic Titrator / 17
- Electronic Bottle-Top Dispenser / 18
- Bottle-Top Dispensers / 19
- Vacuum Aspiration System / 20
- Dispenser & Diluter System / 21



22

## Thermal Control

- Thermal Cyclers / 23
- Dry Bath / 25
- Thermal Mixers / 27
- Water Bath / 29
- Sterilizer / 30



31

## Distilling & Mixing

- Rotary Evaporator / 32
- Magnetic Hotplate Stirrers / 37
- Hotplates / 46
- Magnetic Stirrers / 47
- Overhead Stirrers / 52
- Vortex Mixers / 55
- Microplate Mixers / 57
- Rotators / 58
- Tube Rollers / 61
- Shakers / 62
- Homogenizers / 72



74

## Centrifuges & Spectrophotometer



- Palm Micro Centrifuges / 75
- High Speed Micro-Centrifuges / 77
- Clinical Centrifuges / 86
- Spectrophotometers / 94

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

# Liquid Handling



# Electronic pipette

## dPette+

Multifunction Electronic Pipette

## dPette

Simple Electric Pipette

### Features

- High accuracy, high performance stepper motor ensures accuracy and repeatability, eliminating manual pipetting errors
- A motor driven digital control pipette with multifunction
- 2 buttons handle all operational settings
- Light weight, ergonomic design, small body dimension for easy handling that guarantees fatigue free pipetting
- Pipetting, Mixing, Stepper and Dilution(Only dPette+)
- Pipetting, Mixing(dPette)
- Adjustable speeds for aspiration and dispensing
- Li-ion battery and dual charging modes enable longer operation time
- Self calibration – dPette can be connected to a PC via. USB for calibration by the user. Third party calibration is not required



**dPette+**

**dPette**

### Specifications

Channels	Volume Range μL	Increment μL	Test Volume μL	Error limits in accordance to ISO8655-2			
				accuracy error		precision error	
				μL	%	CV%*	
1	0.5-10	0.01	10	±0.10	±1.00	0.05	0.50
			1	±0.035	±3.50	0.03	3.00
1	5-50	0.1	50	±0.40	±0.80	0.15	0.30
			5	±0.15	±3.00	0.125	2.50
1	30-300	1	300	±1.80	±0.60	0.60	0.20
			30	±0.90	±3.00	0.21	0.70
1	100-1000	5	1000	±6.00	±0.60	2.00	0.20
			100	±3.00	±3.00	0.60	0.60

\* s.d. = Standard Deviation

\*CV = Coefficient of Variation

# Electronic pipette

dPette is an innovative electronic pipette developed by DLAB. It combines the feature of manual pipette as ergonomic and light weight with the feature of electronic pipette as labor-saving and high performance, it offers new pipetting experience to the users.



# Mechanical Pipettes



## MicroPette plus

121°C  
FULLY  
Autoclavable

### Features

- Fully autoclavable
- Ergonomic design provides excellent operating experience
- Easy-to-read volume display
- The pipettes cover the volume range from 0.1µL to 5mL
- Easy calibration and maintenance
- Manufactured from innovative materials
- Each MicroPette Plus supplied with an individual calibration certificate according to ISO8655
- Online calibration is available



## MicroPette plus multi-channel

121°C  
FULLY  
Autoclavable

### Features

- Dispensing head rotates for effortless pipetting convenience
- Individual piston and tip cone assembly allow for easy repair and maintenance
- Compound material-made tip cone secures high sealing performance
- Compatible with most universal tip brands
- Online calibration is available





### Fully autoclavable

The MicroPette Plus pipettes are fully autoclavable, enable easy cleaning and reduce the risk of contamination. Steam autoclaving can be performed at 121°C, 1 bar for 20 minutes. After autoclaving, the pipette must be cooled down and left to dry for 12 hours before use.

It is recommended to check the performance of the pipette after each autoclaving. Greasing and sealing of the pipette piston after every 10th autoclaving will secure an enhanced function.



# Mechanical Pipettes

## MicroPette

### Features

- Pipettes cover a volume range from 0.1µL to 10mL
- Ergonomic design provides excellent operating experience
- Large display window allows for easy volume identification
- Easy calibration and maintenance
- Each MicroPette supplied with an individual calibration certificate according to ISO8655
- Online calibration is available

121°C  
HALF  
Autoclavable



## MicroPette multi-channel

121°C  
HALF  
Autoclavable

### Features

- 8 and 12 channel pipettes are appropriate for 96 well plates
- Dispensing head rotates for effortless pipetting convenience
- Individual piston and tip cone assemblies allowing easy repair and maintenance
- Compound material-made tip cone secures high sealing performance
- Compatible with most universal tip brands
- Online calibration is available





## Calibration

All DLAB pipettes have been quality tested according to ISO8655-2:2002 and are supplied with individual calibration certificates. The quality control includes gravimetric testing of each pipette with distilled water at 22°C.

Our website [www.dlabsci.com](http://www.dlabsci.com) allows users to access DLAB online calibration software and achieve accurate and timely calibration.

Online calibration software is FREE to DLAB pipette users

# Mechanical Pipette Volume Selection

## Specifications

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

Single-channel Adjustable Volume Pipettes

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

### 8-channel Adjustable Volume Pipettes

Volume Range	Increment	Test Volume	Error limits in accordance with ISO8655-2			
			(Accuracy error)		(Precision error)	
			%	µL	%	µL
0.5-10µL	0.1µL	10µL	1.50%	0.15	1.50%	0.15
		5µL	2.50%	0.125	2.50%	0.125
		1µL	4.00%	0.04	4.00%	0.04
5-50µL	0.5µL	50µL	1.00%	0.5	0.50%	0.25
		25µL	1.50%	0.375	1.00%	0.25
		5µL	3.00%	0.15	2.00%	0.1
50-300µL	5µL	300µL	0.70%	2.1	0.25%	0.75
		150µL	1.00%	1.5	0.50%	0.75
		50µL	1.50%	0.75	0.80%	0.4

### 12-channel Adjustable Volume Pipettes

Volume Range	Increment	Test Volume	Error limits in accordance with ISO8655-2			
			(Accuracy error)		(Precision error)	
			%	µL	%	µL
0.5-10µL	0.1µL	10µL	1.50%	0.15	1.50%	0.15
		5µL	2.50%	0.125	2.50%	0.125
		1µL	4.00%	0.04	4.00%	0.04
5-50µL	0.5µL	50µL	1.00%	0.5	0.50%	0.25
		25µL	1.50%	0.375	1.00%	0.25
		5µL	3.00%	0.15	2.00%	0.1
50-300µL	5µL	300µL	0.70%	2.1	0.25%	0.75
		150µL	1.00%	1.5	0.50%	0.75
		50µL	1.50%	0.75	0.80%	0.4

### Fixed Volume Pipettes

Volume Range	Increment	Test Volume	Error limits in accordance with ISO8655-2			
			(Accuracy error)		(Precision error)	
			%	µL	%	µL
5µL	-	5µL	1.3%	0.065	1.2%	0.06
10µL	-	10µL	0.8%	0.08	0.8%	0.08
20µL	-	20µL	0.6%	0.12	0.5%	0.1
25µL	-	25µL	0.5%	0.125	0.3%	0.075
50µL	-	50µL	0.5%	0.25	0.3%	0.15
100µL	-	100µL	0.5%	0.5	0.3%	0.3
200µL	-	200µL	0.4%	0.8	0.2%	0.4
250µL	-	250µL	0.4%	1.0	0.2%	0.5
500µL	-	500µL	0.3%	1.5	0.2%	1.0
1000µL	-	1000µL	0.3%	3.0	0.2%	2.0
2000µL	-	2000µL	0.3%	6.0	0.15%	3.0
5000µL	-	5000µL	0.3%	15	0.15%	7.5

# Pipette Filler

## Levo Plus Pipette Filler

### Features

- Compatible with most of the plastic and glass pipettes from 0.1 -100mL
- Eight speeds of selection for aspiration and dispensing different liquids
- Large LCD display showing low battery warning and speed settings
- Enables single-handed operation with minimum effort
- Light and ergonomic design providing easy usability
- High capacity Li-ion battery enable long runtime of operation
- Powerful pump fills a 25mL pipette in <5 seconds
- 0.45µm replaceable hydrophobic filter
- Rechargeable during use

Large LCD display showing low battery warning and speed settings



Select the desired coarse speed by pressing the button +/-



Hydrophobic filter 0.45µm

Silicone adapter for 0.1-100mL pipette tip, fully autoclavable



### Specifications

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

## Levo ME Pipette Filler

Levo ME pipette filler has an excellent feature and ergonomic design, suitable for almost all commonly used glass or plastic pipettes.

### Features

- Enables single-handed operation with minimum effort
- Compatible with most of the plastic and glass pipettes from 0.1-100mL
- Easily adjustable speed control
- 0.45µm replaceable hydrophobic filter
- Stable and reliable performance, elegant appearance
- High capacity Li-ion battery enable long operation time.



### Specifications

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

# Pipette Controllers & Pumps

## Levo

### Pipette Controller

#### Features

- Ease of use
- Precise pipetting control
- Robust and light weight
- Compatible with most of the plastic and glass pipettes from 0.1 -100mL
- 3µm replaceable hydrophobic filter
- Easy cleaning and maintenance



Compress the suction bellows before attaching the pipette

Button to expel residual liquid when using blow-out pipette

Aspiration and dispensing comfortably achieved with a sensitive lever

## Levo E

### Pipette Pump

#### Features

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



3µm replaceable Hydrophobic filter

Silicone adapter for 0.1-100mL pipette tip, fully autoclavable



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.



Based on the principle of positive displacement, StepMate Stepper is designed for trouble-free and reliable dispensing of liquids, especially for high viscosity, high density and high vapor pressure. The 48-step dispensing allows for enhanced accuracy and usability.

## StepMate Stepper

### Features

- Light and ergonomic solution provides easy usability
- Single-handed operation
- Volume range from 10µL to 5mL
- Up to 48 dispensing steps
- Maintenance free
- Equipped with durable tip
- insertion lever
- Fits seven sizes of disposable polypropylene syringes from 0.5mL to 50mL

Optimized for smooth dispensing of even the smallest volumes

Five easy-to-select settings control dispensing volume

By pushing the slide upwards, the syringe is filled up

### How to select dispensing volume

Find the required dispensing volume in the table  
 Use the adjusting wheel to set the required volume  
 Select and insert a suitable tip  
 Follow the maximum dispensing steps

Tip volume

Dispensing Volume

The stop lever secures the syringe

Tips	Sel.	1	2	3	4	5
0.50ml		10µl	20µl	30µl	40µl	50µl
1.25ml		25µl	50µl	75µl	100µl	125µl
2.50ml		50µl	100µl	150µl	200µl	250µl
5.00ml		100µl	200µl	300µl	400µl	500µl
12.50ml		250µl	500µl	750µl	1000µl	1250µl
25.00ml		500µl	1000µl	1500µl	2000µl	2500µl
50.00ml		1000µl	2000µl	3000µl	4000µl	5000µl
Steps		48	23	15	11	8

Steps



**DUAB**  
StepMate

5  
5µl  
50µl  
125µl  
250µl  
500µl

# Stepper



DLAB stepper tips are particularly suitable for dispensing of fluids with high viscosity, high vapor pressure etc.

Tips are made from high-quality materials (Cylinder: PP, Piston: PE-HD) without soft lubricants or other additives.



## Specifications

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

Dial setting		1	2	3	4	5			
Number of steps		48	23	15	11	8			
Cat. No.	Syringe volume (mL)	Sample volume ( $\mu$ L)					A %	P %	Description
17900032	0.50	10	20	30	40	50	$\pm 0.8$	$\leq 0.7$	0.5mL, piston PE-HD, cylinder PP, 1 packing, 5 pcs/packing
17900033	1.25	25	50	75	100	125	$\pm 0.8$	$\leq 0.5$	1.25mL, piston PE-HD, cylinder PP, 1 packing, 5 pcs/packing
17900034	2.50	50	100	150	200	250	$\pm 0.8$	$\leq 0.4$	2.5mL, piston PE-HD, cylinder PP, 1 packing, 5 pcs/packing
17900035	5.00	100	200	300	400	500	$\pm 0.4$	$\leq 0.3$	5mL, piston PE-HD, cylinder PP, 1 packing, 5 pcs/packing
17900036	12.50	250	500	750	1000	1250	$\pm 0.3$	$\leq 0.3$	12.5ml, piston PE-HD, cylinder PP, 1 packing, 5 pcs/packing
17900037	25.00	500	1000	1500	2000	2500	$\pm 0.2$	$\leq 0.3$	25mL, piston PE-HD, cylinder PP, 1 packing, 2pcs/packing with 1 pc adapter
17900038	50.00	1000	2000	3000	4000	5000	$\pm 0.2$	$\leq 0.2$	50mL, piston PE-HD, cylinder PP, 1 packing, 2pcs/packing with 1 pc adapter

# Electronic Titrator

## dTrite Electronic Titrator

The dTrite Digital Burette provides accurate, precise and convenient bottle-top titration, as well as optimum operator safety.

It combines both magnetic stirrer and titrator functions, making it easier for the operator to achieve satisfactory results in the field of analytical chemistry, food industry, water analysis etc.



### Features

- High quality motor providing excellent precision and accuracy
- Electronic control decreases the repetitive strain injury
- Remote control panel prevents manual disturbance during operation
- Built-in magnetic stirrer support

### Specifications

<b>Volume Range</b>	0.01mL-99.99mL, Max piston lift is 10mL, resolution is 10µL
<b>Volume Accuracy</b>	R=0.2% CV=0.07%
<b>Velocity</b>	16 stages
<b>Operating Temperature Range</b>	10°C-30°C
<b>Quality Control</b>	DIN EN ISO 8655
<b>Control Type</b>	External control, including the stirrer and the burette program

# Electronic Bottle-Top Dispenser

## dFlow Electronic Bottle-Top Dispenser

### Features

- Motor operation minimizes the grip force
- Electronic control decreases the repetitive strain injury
- Remote control panel prevents manual disturbance during operation
- Two Dispensing modes:
  - dispenser
  - stepper function



### Specifications

<b>Volume Range</b>	0.1-99.9mL, Max piston lift is 10mL, resolution is 100µL
<b>Volume Accuracy</b>	Dispenser: R = 10mL ±30µL; CV = 10ml ±10µL Stepper: R = 1mL ±6µL; CV = 1ML ±9µL
<b>Operating Temperature Range</b>	10°C-30°C
<b>Quality Control</b>	DIN EN ISO 8655
<b>Control Type</b>	External control

# Bottle-Top Dispensers

## DispensMate Bottle-Top Dispenser

Easy-to-use volume adjustment

Smooth piston design provides effortless dispensing

Closure cap protects, against reagent contact and is easy to attach/detach, without taking gloves off.



Adapters allow fitting to standard reagent bottles

Filling tube adjusts easily for different size bottles



### Features

- Excellent chemical resistance, components are made of PTFE, FEP, BSG, PP
- Fully autoclavable at 121°C
- Four ranges of bottle-top dispenser covering a volume range from 0.5mL to 50mL
- Easy for cleaning and maintenance
- The optional flexible discharge tube with safety handle permits fast and precise dispensing
- Vapor pressure max. 500mbar, viscosity max. 500mm<sup>2</sup>/s,
- temperature max. 40°C, density max. 2.2g/cm<sup>3</sup>
- Dispensemate is supplied with S40, GL32, GL38, GL25, GL28 sized adapters

### Accessories

Cat. No.	Description
17100553	GL45, Adapter, 45mm
17000069	S40, Adapter, 45/40mm
17400131	GL32, Adapter, 45/32mm
17400132	GL38, Adapter, 45/38mm
17400133	GL25, Adapter, 32/25mm
17400134	GL28, Adapter, 32/28mm
17400037	Reagent Bottle (Brown, 1L, Optional)
17400021	Filling tube(m)
17100073	Discharge tube(m)

### Specifications

Cat. No.	Volume Range mL	Graduation mL	A≤±		CV≤	
			%	µL	%	µL
7032100001	0.5-5	0.1	0.5	25	0.2	10
7032100002	1.0-10	0.2	0.5	50	0.2	20
7032100003	2.5-25	0.5	0.5	125	0.2	50
7032100004	5.0-50	1.0	0.5	250	0.2	100

# Vacuum Aspiration System



Hydrophobic filter  
0.45µm  
Φ6mm

SafeVac is designed 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.

## SAFEVAC Vacuum Aspiration Systems

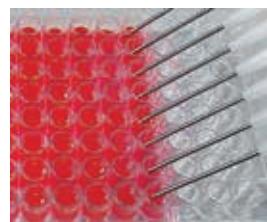
### Features

- Vacuum power can be set to different levels to achieve 1mL/S to 15mL/S aspiration speed
- Sensitive level sensor to prevent liquid overflow during operation
- Fully autoclavable waste collection bottle, tubing and handle
- Lid, tubing and handle are easy for disassembling, cleaning and autoclaving
- Wide range of adapters to fit tube, microplate and disk plate for various tasks
- Interchangeable hand operator -tip adapters make it suitable for various tasks from single channel to 8-channel based on the applications in tube, micro plate, disk plate etc.

### Specifications

<b>Vacuum range</b>	0-600mbar
<b>Aspirating speed</b>	1-15mL/S
<b>Autoclave component</b>	tube; waste bottle; operation handle;
<b>Dimension[W×D×H]</b>	180×240×450mm
<b>Weight</b>	3kg
<b>Input voltage</b>	100-240VAC, 50/60 Hz
<b>Bottle Volume</b>	4L

Wide range of adapters fit well with tube, microplate and disk plate for various of tasks, 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 ).



# Dispenser & Diluter System



The diluter & dispenser system can greatly improve work efficiency in the sample preparation process. It is widely used in the Analytical Techniques such as High Performance Liquid Chromatography(HPLC), Gas Chromatography(GC), Liquid Scintillation, Atomic Absorption(AA) and Inductively Coupled Plasma Spectroscopy(ICP).It can also be used in forensic Analysis, Mining Industry,Oil Sampling, Environmental Analysis and Reagent Dispensing etc.

## DL-D50-Pro Dispenser & Diluter Systems

### Features

- It is ideal for dispensing and diluting applications
- Five operating modes enabling fast and precise operation in priming, titration, volume measurements as well as in diluting, dispensing, mixing, pipetting and rinsing.
- Easy-to-use pipelines and easy-to-switch modes
- The high torque, precision stepper motors provide excellent accuracy
- Full range from 250 $\mu$ L to 25mL
- Compatible with 7 kinds of Syringes
- Adjustable pipetting speed for 9 stages

### Specifications

Accuracy	$\pm 1\%$
Precision	$\pm 0.2\%$
Flow Rate	0.003-6000 $\mu$ L/s (depending on the syringe that is selected)
Compatible Syringes	250, 500 $\mu$ L, 1, 2.5, 5, 10, 25mL
Fluid Path	Borosilicate, PTFE, CTFE
Voltage	100-240VAC
Frequency	50/60Hz
Dimension[W×D×H]	190×180×350mm
Weight	4.5kg
Permissible relative temperature	5-40°C
Permissible relative humidity	80%RH

### Accessories

Cat. No.	Description
17900094	Syringe,250 $\mu$ L
17900095	Syringe,500 $\mu$ L
17900096	Syringe,1mL
17900097	Syringe,2.5mL
17900098	Syringe,5mL
17900099	Syringe,10mL
17900100	Syringe,25mL



# Thermal Control



## TC1000-G Thermal Cycler Gradient

## TC1000-S Thermal Cycler Standard

Thermal cyclers are essential laboratory instruments in the field of biotechnology, cloning, genotyping, mutagenesis, etc.

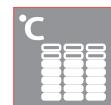
The TC1000-G features gradient function to achieve excellent heating and cooling rates and temperature uniformity in a single run, fulfilling every wish for easy optimization of PCR assays with high throughput.

### Features

- Reliable heating/cooling elements and precise temperature control
- Unique design of block ensures the temperature uniformity and repeatable results
- 7 inch Large color touch panel screen for easy programming with user friendly software
- High performance DSP and temperature control
- Fast heating and cooling rate
- Large user program storage



# Thermal Control



Excellent temperature uniformity



Gradient function



LCD touch panel



Excellent temperature accuracy



## Specifications

Sample Capacity	
Heating Temperature Range	96X0.2mL PCR tube, 8X12 PCR plate or 96 well plate
Lid Temperature Range	4-105°C
Temperature Display Accuracy	30-110°C
Temperature Control Accuracy [at 55°C]	±0.1°C
Temperature uniformity[at 55°C]	±0.3°C
Max. Heating/Cooling Rate	<0.3°C
Gradient Temperature Setting Range	3°C/Sec
Gradient Range	30-99°C
Adapter block material	1-42°C
Display	aluminum
Input	7" LCD 800x480
User defined file system	Touch panel
Power off protection	Max. 30 segments 99 cycles max. 16 folder and 16 files each folder
Power Supply	Yes
Dimension[WxDxH]	100-120V/200-240V,50/60Hz
Weight	280x370x250 mm

## TC1000-G

96X0.2mL PCR tube,  
8X12 PCR plate or 96 well plate

4-105°C

30-110°C

±0.1°C

±0.3°C

<0.3°C

3°C/Sec

30-99°C

1-42°C

aluminum

7" LCD 800x480

Touch panel

Max. 30 segments 99 cycles  
max. 16 folder and 16 files each folder

Yes

100-120V/200-240V,50/60Hz

280x370x250 mm

11kg

## TC1000-S

96X0.2mL PCR tube,  
8X12 PCR plate or 96 well plate

4-105°C

30-110°C

±0.1°C

±0.3°C

<0.3°C

3°C/Sec

-

-

aluminum

7" LCD 800x480

Touch panel

Max. 30 segments 99 cycle max.  
16 folder and 16 files each folder

Yes

100-120V/200-240V,50/60Hz

280x370x250 mm

11kg



## HB120-S

### Dry bath

#### Features

- A wide range of temperature control up to 120°C
- Timer function support is available
- Various types of optional blocks are available
- Overheating protection
- Lid for protection and heat preservation

#### Specifications

	HB120-S
Functions	Heating
Temperature range	Room temp.-120°C
Temperature control accuracy	± 0.5°C
Temperature uniformity	± 0.5°C
Max. heating rate	5.5°C/min
Timer	0min-99h59min
Screen	LED
Overheating protection	140°C
Adapter block material	aluminum
Voltage, Frequency	100-120V/220-240V,50Hz/60Hz
Power	160W
Dimension[WxDxH ]	175 x 290 x 85mm
Weight	3kg

Cat.No.	Block types	Capacity	Diameter Depth
18900218		0.2mLx54	6.4mm 15mm
18900219		0.5mLx40	8.2mm 26.4mm
18900253 (1.5mL) 18900220 (2mL)		1.5mLx40 2mLx40	11mm 34.7mm
18900221		5/15mLx28	17mm 48mm
18900222		50mLx8	29.8mm 48mm
18900224		0.2mL+0.5mL+1.5/2mL 18+18+18	-
18900223		96 or 384 well plate	-



Adapter block selection



Overheating protection



Timer



LED display



# Dry Bath



Mini Dry bath is portable, compact and convenient. It is useful for rapid and uniform heating of biological samples, in applications like preservation and denaturation of nucleic acids and proteins and many other applications.

Cat.NO.	Block types	Capacity	Diameter x depth
18900414		0.2mlx40	6.4x20 mm
18900415		0.5mlx24	8.2x28.4mm
18900416		1.5mlx15	11.2x31mm
18900428		2mlx15	11x31mm
18900417		5mlx6	17x31mm
18900426		15mlx4	16.4x45mm
18900427		50mlx2	29x45mm

## Mini HCL100 Mini HC100 Mini H100

### Dry Bath

#### Features:

- Light in weight
- LCD display of both temperature and time.
- Rapid calibration support
- Overheating protection.
- Optional blocks with different capacities are available.
- Safe and stable.
- USB interface to save the data
- Mini HCL100 with hot lid provided to preserve the generated heat.

#### 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
No. of programs in memory	9(2steps for each )	9 ( 2steps for each )	9(2steps for each )
Rapid calibration	Support	Support	Support
USB interface	Support	Support	Support
Error code reminder	Support	Support	Support
External dimension [mm]	110x162x140	110x162x140	110x162x140
Overall weight [kg]	≤1	≤1	≤1
Power supply	100-240V, 50/60Hz	100-240V, 50/60Hz	100-240V, 50/60Hz
Power[w]	60	60	60
Operating temperature[°C]	+10-40	+10-40	+10-40
Operating humidity [% RH]	≤80	≤80	≤80

## HC110-Pro

### Dry bath with cooling

#### Features

- Precise temperature control for heating and cooling
- Flexible adapter selection
- Programmable
- Compatible with various tubes
- Quick interchange of blocks with patented magnet adhesion technology and without any tools
- Block equipped with a lid for heat preservation



Excellent temperature accuracy



Programmable



Adapter self recognition



Cat.No.	Blocks	Speed	Capacity	Diameter x Depth
18900238		1500rpm	24x0.5mL	8.1x26mm
18900237		1500rpm	24x1.5mL	10.9x30.8mm
18900239		1500rpm	24x2mL	10.9x30.8mm
18900240		1500rpm	8x5mL	13.6x42mm
18900241		800rpm	8x15mL	6.5x80mm
18900242		600rpm	4x50mL	29.6x80mm
18900244		1500rpm	well plate	-
18900243		1500rpm	0.2mLx96 PCR plate	-

#### Specifications

Functions
Temperature range
Temperature control accuracy[@20~45°C]
Temperature uniformity[@20~45°C]
Max. heating rate
Max. cooling rate
Screen
Program
Overheating protection
Adapter block material
Voltage, Frequency
Power
Dimension[WxDxH] ( without the heating block )
Weight

#### HC110-Pro

##### Heating & cooling

Heating: room temp. - 110°C  
Cooling: room temp. - below room temp. 25°C

± 0.5°C

Max ± 0.5°C

5.5°C/min

2.5°C/min (100°C-room temp.)  
0.5°C/min (below room temp.)

TFT

9

150°C

aluminum

100~240V,50/60Hz

200W

200x235x120mm

7.3kg

# Thermo Mix

The Thermo Mix series allow for precise and efficient heating and mixing, as well as excellent temperature accuracy and uniformity, offering a wide range of applications, such as gene synthesis, gene purification, gene and protein denaturation, enzymatic reaction, bacterial growth, etc.

## HCM100-Pro

### Thermo Mix

## HM100-Pro

### Thermo Mix with heating

#### Features

- Excellent mixing result
- Stable and wide range of speed adjustment
- Precise temperature control for heating and cooling
- Flexible adapter selection
- Programmable
- Compatible with various tubes
- Quick interchange of blocks with patented magnet adhesion technology and without any tools
- Block equipped with a lid for heat preservation



Blocks self recognition



#### Specifications

Functions
Temperature range
Temperature control accuracy[@ 20–45°C]
Temperature uniformity[@ 20–45°C]
Max. heating rate
Max. cooling rate
Mixing frequency
Mixing orbit
Screen
Program
Overheating protection
Adapter block material
Voltage, Frequency
Power
Dimension[WxDxH] ( without the heating block )
Weight

#### HCM100-Pro

Heating, cooling & mixing
Heating: room temp. - 100°C
Cooling: room temp. - below room temp. 15°C
± 0.5°C
Max. ± 0.5°C
5.5°C/min
5°C /min(100°C-room temp.)
0.5°C/min(below room temp.)
200-1500rpm
3mm
TFT
9
150°C
aluminum
100-240V, 50Hz/60Hz
200W
200×235×120mm
7.3kg

#### HM100-Pro

Heating & mixing
Heating: room temp. - 100 °C
± 0.5°C
Max. 0.5 °C
5.5°C/min
-
200-1500rpm
3mm
TFT
9
150°C
aluminum
100-240V, 50Hz/60Hz
200W
200×235×120mm
7.3kg



## Features

- DLAB water-bath's maintain stable internal temperature with 20L heating capacity
- Temperature range up to +100° C
- LED display of the actual temperature.
- High temperature accuracy with overheating protection
- Precise temperature control with PID controller
- High temperature resistant and corrosion free lid made up of 304 stainless steel.
- The water bath has a dedicated internal magnetic circulation pump for uniform temperature distribution and also helps to prevent water leakage.
- The temperature homogeneity avoids any bumping phenomenon to occur during usage.

DLAB Water baths are useful to incubate samples at a constant temperature with digital interface to set to desired heating temperature. They are widely used in life science or chemical research laboratories for incubation of cell cultures, heating reagents and are preferred for heating any flammable chemicals.

## DWB20-P/DWB20-S Water Bath



## Specifications

Display	
Temperature range [°C]	
Temperature stability at 37°C [°C]	
Temperature accuracy at 37°C [°C]	
Bath volume[L]	
Circulating pump	
Overheating protection	
Temperature sensor	
Dimension [mm]	
Housing	
Parts touch water ( including lid )	
Weight[kg]	
Voltage[V]	
Heating power[W]	
Ambient temperature [°C]	
Ambient humidity [% rHF]	

DWB20-P	DWB20-S
LED	LED
Room temp.+5-100	Room temp.+5-100
±0.2	±0.5
±0.1	±0.3
20	20
yes	No
yes	yes
PT1000	PT1000
667x349x357	667x349x357
Q235 Plastic panel	Q235 Plastic panel
Stainless steel	Stainless steel
17	16.2
220V, 50/60Hz	220V, 50/60Hz
1050	1000
+10~40	+10~40
<80	<80

# Sterilizer

DLAB Infrared sterilizers are designed for sterilization of laboratory equipments like inoculating loop, inoculated needles, tweezers and other small items for high temperatures with short time sterilization. These can also be used for the low temperatures with long time sterilization to prevent contamination.

## ST800-S / ST800-E

### Infrared Sterilizer

#### Features

- DLAB sterilizers are fast, convenient and can replace alcohol lamps and bunsen burners
- Sterilization is completed within 5-7 seconds
- Very safe to operate with no visual fire. It is only ashing the organic matter in the depths of ceramic heating body and preventing cross contamination
- LED display of actual temperature with temp. control accuracy of 10°C
- These can be used in biology safety cabinets and clean bench space
- Precise temperature control precision and adjustable from 300 - 830°C



#### Specifications

	ST800-S	ST800-E
Display	LED	/
Temperature range [° C]	300~830	830
Central zone max temperature [° C]	825 ± 50	825 ± 50
Max. outer diameter of sterilized items [mm]	15	15
The total length of heating area [mm]	140	140
Heating tube	Ceramic	Ceramic
Shell	ABS	ABS
Dimensions [LxWxH] (mm)	158x192x290	158x192x290
Weight[kg]	1.5	1.5
Voltage[V]	220V, 50/60Hz	220V, 50/60Hz
Power[W]	190	190
Working temperature [° C]	-10~50	-10~50
Working humidity [% RH]	<80	<80
Storage temperature [° C]	-40~60	-40~60
Storage humidity [% RH]	10~90	10~90

# Distilling & Mixing

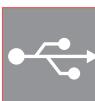


# Rotary Evaporator

## RE100-Pro Digital Rotary Evaporator



Large LCD display



USB connector



Chemical resistance



Overheating protection



Compatible with all range of glassware

LCD Digital Rotary Evaporator is an essential instrument in chemical laboratories for the efficient and gentle removal of solvents from samples by evaporation. It offers an excellent distilling solution in a wide range of applications.

### Features:

- Digital 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 temp. to 180°C
- Overheating protection temperature at 220°C
- Speed range from 20 to 280rpm, and interval operation in clockwise and anticlockwise directions for drying process
- Patented condenser (cooling surface 1700cm<sup>2</sup>) with excellent cooling effect
- Ejection mechanism ensures easy removal of evaporating flask
- Patented double spring sealing ring which is made of PTFE provides an excellent sealing performance
- Remote function provides PC control and data transmission

### Specifications

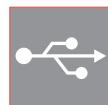
RE100-Pro	
Motor Type	Brushless DC motor
Speed Range	20-280rpm
Display	LCD(speed,temperature, time)
Clockwise and Anti-clockwise	Yes
Heating Temperature Range	Room temp. to 180°C
Control Accuracy	±1°C
Heating Power	1300W
Stroke Displacement	automatic 150mm
Timer	Yes
Time Setting Range	1-999min
Dimension[DxWxH]	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 50/60 Hz
Power	1400 W

# 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 circulating refrigerators to provide excellent distillation solutions in many laboratory applications.

## Features:

- 5L heating bath with a wide temperature range (room temp. to 180°C), independent temperature control, make it can be used separately. Water/oil heating mode can be changed only through a switch.
- Manual lift combined with auxiliary lift for precise positioning of the glassware.
- PID control ensures high temperature accuracy at ±1°C (water).
- Overheating protection temperature at 220°C
- Boil-dry protection, automatically power off if heating without water/oil in the heating bath.
- Speed range from 20 to 200rpm, timing interval operation in clockwise and anticlockwise directions for drying process.
- Patented condenser (cooling surface 1200/1700cm<sup>2</sup> for selection), double helix condensing tube + center circular arc design to speed up the flow rate of liquid with excellent cooling effect.
- Ejection mechanism ensures easy exchange of evaporating flask
- Adjustable immersion angle
- Patented double spring sealing ring which is made of PTFE provides an excellent sealing performance
- Remote function provides PC control and data transmission.
- Compatible with the entire range of RE100-Pro glassware.



USB connector



Chemical resistance



Overheating protection



Compatible with all range of glassware

## RE100-S

### LED Digital Rotary Evaporator



## Specifications

### RE100-S

Motor Type	Brushless DC motor
Speed Range	20-200rpm
Display	LED (speed, temperature, time)
Clockwise and Anti-clockwise	Yes
Heating Temperature Range	Room temp. to 180°C
Control Accuracy	water: ± 1°C oil: ± 3°C
Heating Power	1010 W
Stroke Displacement	Manual 110mm + auxiliary100mm
Interval Time Setting Range	1~999s
Dimension [D × W × H]	Main Unit: 440 × 320 × 450mm Heating Bath: 300x300x240mm
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 50/60 Hz
Power	1100 W

# Rotary Evaporator | Accessories

## Condenser



### Vertical

Cat. No.	Glassware type	Volume	Cooling surface
18900165	Evaporating flask(NS29/32) Receiving flask(KS35/20)	1000mL	1700cm <sup>2</sup>
18900173	Evaporating flask(NS24/40) Receiving flask(KS35/20)	1000mL	1700cm <sup>2</sup>
18900166	(COATED)Evaporatingflask(NS29/32) Receiving flask (KS35/20)	1000mL	1700cm <sup>2</sup>
18900174	(COATED)Evaporatingflask(NS24/40) Receiving flask (KS35/20)	1000mL	1700cm <sup>2</sup>



### Diagonal

Cat. No.	Glassware type	Volume	Cooling surface
18900163	Evaporating flask(NS29/32)Receiving flask(KS35/20)	1000mL	1500cm <sup>2</sup>
18900171	Evaporating flask(NS24/40)Receiving flask(KS35/20)	1000mL	1500cm <sup>2</sup>
18900164	(COATED)Evaporatingflask(NS29/32) Receiving flask (KS 35/20)	1000mL	1500cm <sup>2</sup>
18900172	(COATED)Evaporatingflask(NS24/40) Receiving flask (KS35/20)	1000mL	1500cm <sup>2</sup>



### Heating Bath

Cat. No.	Description	Volume
18900201	Rotary Evaporator, 220V	5L
18900202	Rotary Evaporator, 110V	5L



# Rotary Evaporator | Accessories

## Glassware



### Evaporating flask

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

### Receiving flask

Cat. No.	Volume	Size
18300107	100ml	KS 35/20
18300108	250ml	KS 35/20
18300109	500ml	KS 35/20
18300110	1000ml	KS 35/20
18300111	2000ml	KS 35/20



### Foam brake

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



### Vapor tube

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

# Rotary Evaporator | Accessories

## Additional

### DVR480 Vacuum controller

#### Specification

Suitable for the vacuum diaphragm vacuum pump controller  
Pressure stability:  $\pm 0.1$  Torr/0.133mbar  
Nozzle size: 8mm  
Sensor material: stainless steel

#### Cat. No.

18900361

#### Voltage

Vacuum controller  
100-240V, 50/60Hz



### C410 Chemistry-design diaphragm pump

#### Specification

Maximum Vacuum:13mbar  
Work Mode: In Successions  
Nozzle Size:8mm, Power: 95W  
Motor speed:1450rpm  
Flow Rate:  
mbar: 1000 | 880 | 750 | 600 | 480 | 280  
L/min: 25 | 22 | 20 | 12 | 7.5 | 5  
Noise:50dB



### Seals and other accessories

#### Cat. No.

#### Description

18202027

PTFE vacuum seal



18900362

Ultra resistant FFKM seal for  
applications with highly abrasive  
solutions

18900190

Evaporation flask clip(red)  
CS002440



18900188

Evaporation flask clip(green)  
CS002942



### MZ 1C Chemistry-design diaphragm pump

#### Specification

Number of heads / stages:2 / 2  
Max. pumping speed:0.75 m<sup>3</sup>/h  
Ultimate vacuum (abs.):12mbar  
Nozzle Size:DN 8-10 mm  
Rated motor power:0.06kW  
Rated motor speed:1500/1800 rpm  
Noise level:45dB  
ATEX:II 3G IIC T3 X Internal Atm. only

#### Cat. No.

#### Voltage

18900231

Cn plug, 100V-120V/200-230V 50Hz/60Hz

18900232

Euro plug,100V-120V/200-230V 50Hz/60Hz

18900233

USA plug,100V-120V/200-230V 50Hz/60Hz

18900234

UK plug,100V-120V/200-230V 50Hz/60Hz



### Vacuum regulator/moisture trap

#### Cat. No.

#### Description

18900186

In use of control small volume,  
installed in a vacuum between  
DVR480 and vacuum system.  
Material: PVDF, PTFE, ABS,  
Borosilicate Glass, Stainless Steel



# Magnetic Hotplate Stirrers

DLAB 550°C series magnetic stirrer is developed for demanding applications. It is widely used in chemical synthesis, physical and chemical analysis, bio-pharmaceuticals etc. Combining with glass ceramic work plate, brushless DC motor and external temperature sensor, the work plate temperature is optimized up to 550°C.

## MS7-H550-Pro

### LCD Digital Magnetic Hotplate Stirrer

#### Features

- LCD display for precise monitoring of speed and temperature
- Built-in PID controller ensures safe heating of the medium with overheating protection
- Max. heating plate temperature 550°C
- Glass ceramic work plate provides excellent chemical resistant performance and most efficient heat transfer
- External temperature control is possible by connecting the temperature sensor(PT1000) with an accuracy at  $\pm 0.2^\circ\text{C}$
- Digital speed controlling, max. speed at 1500rpm
- Outstanding brushless DC motor enables more stirring power
- Two rotating knobs enable easy adjustment of speed and temperature
- The "HOT" warning will flash when the work plate temperature is above 50°C even when the hotplate is turned off
- Remote function provides PC control and data transmission



## MS7-H550-S

### LED Magnetic Hotplate Stirrer

#### Features

- LED display for precise monitoring of temperature
- A wide speed range of 0 to 1500rpm
- Max. Heating plate temperature 550°C
- External temperature control is possible by connecting the temperature sensor(PT1000) with accuracy at  $\pm 0.2^\circ\text{C}$
- The "HOT" warning will flash if the work plate temperature is above 50°C



Overheating protection



External sensor



Wide range of accessories



Chemical resistance



## Specifications

Work plate Dimension [W x D]	
Work plate material	
Motor type	
Motor rating input	
Motor rating output	
Power	
Heating output	
Voltage	
Stirring positions	
Max. stirring quantity, [H <sub>2</sub> O]	
Max. magnetic bar[length]	
Speed range	
Speed display	
Temperature display	
Heating temperature range	
Temperature control accuracy	
Overheating protection	
Temperature display accuracy	
External temperature sensor	
"Hot" warning	
Data connector	
Protection class	
Dimension [WxDxH]	
Weight	
Permissible ambient temperature and humidity	

### MS7-H550-Pro

184x184mm (7 inch)
Glass ceramic
Brushless DC motor
18W
10W
1050W
1000W
100-120/200-240V 50/60Hz
1
20L
80mm
100-1500rpm resolution ±1rpm
LCD
LCD
Room Temp.-550°C, increment 1°C
±1°C(<100°C) ±1%(>100°C)
580°C
±0.1°C
PT1000 (accuracy ±0.2)
50°C
RS232
IP21
215x360x112mm
5.3kg
5-40°C, 80%RH

### MS7-H550-S

184x184mm (7 inch)
Glass ceramic
Shaded pole motor
15W
1.5W
1030W
1000W
100-120/200-240V 50/60Hz
1
10L
80mm
0-1500rpm
Scale
LED
Room temp.-550°C, increment 5°C
±10°C
580°C
±1°C
PT1000 (accuracy ±0.2)
50°C
-
IP21
215x360x112mm
4.5kg
5-40°C, 80%RH

## Magnetic Hotplate Stirrers

DLAB 340°C magnetic hotplate stirrers include all leading safety standards and features for superior ease of use and are cost-effective. They are widely used in chemical synthesis, physical and chemical analysis, bio-pharmaceuticals, etc.

### MS-H-Pro<sup>T</sup> LCD Digital Magnetic Hotplate Stirrer with Timer



### MS-H-Pro<sup>+</sup> LCD Digital Magnetic Hotplate Stirrer



#### Features

- Brushless DC motor is maintenance free and explosion-proof
- Digital temperature control with max. temperature at 340°C
- Digital speed control with **max. speed up to 1500rpm**
- Max. stirring quantity of H<sub>2</sub>O at 20L
- Safety circuits provide overheating protection
- The "HOT" warning will flash if the plate temperature is above 50°C even when the hotplate is turned off
- Wide range timer function from 1min to 99h59min( MS-H-ProT only)
- High-resolution LCD display shows actual temperatures and speed (MS-H-ProT displays the time also)
- External temperature control is possible by connecting the temperature sensor(PT 1000) with accuracy at ±0.2°C
- Stainless steel work plate with ceramic coating provides good chemical-resistant performance
- Remote function provides PC control and data transmission
- A wide variety of accessories are available

### MS-H-S Magnetic Hotplate Stirrer

#### Features

- Maintenance free brushless DC motor
- Max. temperature to 340°C
- Stirring speed up to 1500 rpm
- Stainless steel work plate with ceramic coating provides good chemical-resistant performance
- Safety circuits provide overheating protection
- A wide variety of accessories are available



# Magnetic Hotplate Stirrers



External sensor



Brushless DC motor



Wide range of accessories



RS232 connector



Chemical resistance



## Specifications

	MS-H-PRO <sup>+</sup>	MS-H-PRO <sup>¹</sup>	MS-H-S
Work plate dimension	φ135mm(5 inch)	φ135mm(5 inch)	φ135mm(5 inch)
Work plate material	stainless steel cover with ceramic	stainless steel cover with ceramic	stainless steel cover with ceramic
Motor type	Brushless DC motor	Brushless DC motor	Brushless DC motor
Motor rating input	18W	18W	18W
Motor rating output	10W	10W	10W
Power	550W	550W	530W
Heating output	500W	500W	500W
Voltage	100-120/200-240V 50/60Hz	100-120/200-240V 50/60Hz	100-120/200-240V 50/60Hz
Stirring positions	1	1	1
Max. stirring quantity[H <sub>2</sub> O]	20L	20L	20L
Max. magnetic bar[length]	80mm	80mm	80mm
Speed range	100-1500rpm resolution±1rpm	100-1500rpm resolution±1rpm	0-1500rpm resolution±1rpm
Speed display	LCD	LCD	Scale
Temperature display	LCD	LCD	Scale
Heating temperature range	Room temp.-340°C, increment 1°C	Room temp.-340°C, increment 1°C	Room temp.-340°C
Temperature control accuracy	±1°C(<100°C) ±1%(>100°C)	±1°C(<100°C) ±1%(>100°C)	-
Over temperature protection	360°C	360°C	350°C
Temperature display accuracy	±0.1°C	±0.1°C	±0.5°C
External temperature sensor	PT1000 (accuracy ±0.2)	PT1000 (accuracy ±0.2)	-
"Hot" warning	50°C	50°C	-
Timer function	1min to 99h 59min	1min to 99h 59min	-
Data connector	RS232	RS232	-
Protection class	IP42	IP42	IP42
Dimension[WxDxH]	160×280×85mm	160×280×85mm	160×280×85mm
Weight	2.8kg	2.8kg	2.8kg
Permissible ambient temperature and humidity	5-40°C, 80%RH	5-40°C, 80%RH	5-40°C, 80%RH

# Magnetic Hotplate Stirrers

DLAB MS-H280-Pro is a perfect device for handling small volume task on daily application, as a low temperature magnetic stirrer with max. temperature at 280°C.

## MS-H280-Pro

### LED Digital Magnetic Hotplate Stirrer

#### Features

- Digital temperature control with max. temperature up to 280°C
- Digital speed control with max. speed up to 1500rpm
- Stainless steel work plate with ceramic coating provides good chemical resistant performance
- External temperature control is possible by connecting the temperature sensor(PT1000) with an accuracy at  $\pm 0.5^{\circ}\text{C}$
- LED display shows temperature and speed
- The "HOT" warning will flash when the work plate temperature is above 50°C even if the hotplate is turned off



External sensor



Wide range of accessories



Chemical resistance



LED display



#### Specifications

Work plate Dimension	φ135mm(5 inch)
Work plate material	stainless steel cover with ceramic
Motor type	Brushless DC motor
Motor rating input	5W
Motor rating output	3W
Power	515W
Heating output	500W
Voltage	100-120/200-240V 50/60Hz
Stirring positions	1
Max. stirring quantity	3L
Max. magnetic bar[length]	50mm
Speed range	200-1500rpm
Speed display	LED
Temperature display	LED
Speed display resolution	±1rpm
Heating temperature range	Room temp.-280, increment 1°C
Control accuracy of work plate	±1°C(<100°C) ±1%(>100°C)
Overheating protection	320°C
Temperature display accuracy	±1°C
External temperature sensor	PT1000 (accuracy $\pm 0.5^{\circ}\text{C}$ )
"Hot" warning	50°C
Protection class	IP21
Dimension[VxDxH]	150x260x80mm
Weight	1.8kg
Permissible ambient temperature and humidity	5-40°C, 80%RH



#### MS-H280-Pro

# Magnetic Hotplate Stirrers

## HP380-Pro

LCD Digital Hotplate

## MS6-Pro

LCD Digital Magnetic Stirrer

## MS-H380-Pro

LCD Digital Magnetic Hotplate Stirrer

DLAB 380°C magnetic hotplate stirrers include all leading safety standards and is chemically-resistant with white ceramic work plate. They can be used in physical, chemical, analytical and biological laboratories.

### Features:

- Max. heating temperature is 380°C
- High resolution LCD displays actual temperature and speed.
- Brushless DC motor is maintenance free
- Aluminum cover with ceramic work plate, allows for immediate heat transfer
- External temperature control is possible with temperature sensor PT1000
- Digital temperature control with max. temperature at 380°C
- Digital speed control with max. speed up to 1500rpm
- Max. stirring quantity of H<sub>2</sub>O at 5L



Specifications	MS-H380 Pro	MS6-Pro	HP380-Pro
Work plate Dimension	140x140mm	140x140mm	140x140mm
Work plate material	Aluminum cover with ceramic coating	Aluminum cover with ceramic coating	Aluminum cover with ceramic coating
Motor type	Brushless DC motor	Brushless DC motor	-
Motor rating input	2.4W	2.4W	-
Motor rating output	1.8W	1.8W	-
Power	510W	10W	510W
Heating output	500W	-	500W
Voltage	100-120/200-240V, 50/60Hz	100-240V, 50-60Hz	100-120/200-240V, 50/60Hz
Stirring positions	1	1	-
Max. stirring quantity[H <sub>2</sub> O]	5L	5L	-
Max. magnetic bar[length]	50mm	40mm	-
Speed range	200-1500rpm	200-1500rpm	-
Speed display	LCD	LCD	-
Temperature display	LCD	-	LCD
Heating temperature range	Room temp.+5°C - 380°C	-	Room temp.+5°C - 380°C
Over heat Protection	420°C	-	420°C
Temperature display accuracy	±0.1°C	-	±0.1°C
External temperature sensor	PT1000 (accuracy ±0.5°C)	-	PT1000 (accuracy ±0.5°C)
Control accuracy of sensor	±20rpm	±20rpm	-
Protection class	IP21	IP21	IP21
Dimension [W x D x H]	320x180x108mm	320x180x108mm	320x180x108mm
Weight	2.2kg	2.2kg	2.2kg
Permissible ambient temperature and humidity	5-40°C 80%RH	5-40°C 80%RH	5-40°C 80%RH

# Magnetic Hotplate Stirrers

## MS-H-S10

### 10-Position Magnetic Hotplate Stirrer

#### Features

- Maintenance-free brushless DC motor
- Max speed 1100rpm
- Max.temperature 120°C
- Stainless steel work plate, covered with silicone cushion, provides the excellent performance of heating uniformity and skid resistance



Skid resistance



Multiple position



Brushless DC motor



#### Specifications

Work plate dimension[W x D]
Work plate material
Motor type
Motor rating input
Motor rating output
Power
Heating output
Voltage
Stirring positions
Max. stirring quantity
Max. magnetic bar[length]
Speed range
Speed display
Temperature display
Heating temperature range
Overheating protection
Protection class
Dimension[WxDxH]
Weight
Permissible ambient temperature and humidity



MS-H-S10
180x450mm
Stainless steel with silicone
Brushless DC motor
12W
4W
490W
470W
100-120/200-240V 50/60Hz
10
0.4Lx10
40mm
0-1100rpm
scale
scale
Room temp.-120°C
140°C
IP42
182x622x65mm
3.2kg
5-40°C, 80%RH

# Magnetic Hotplate Stirrers | Accessories



Cat. No.	Description	MS7-H550-Pro	MS7-H550-S	MS-H-Pro <sup>+</sup>	MS-H-Pro <sup>T</sup>	MS-H-S	MS-H280-Pro
(1) 18900001	Blue carrying plate, use with color quarter pies			■	■	■	■
(2) 18900065	Blue Fixed ring, use with color quarter pies			■	■	■	■
(3) 18900002	Red quarter pie, 11 holes, 4 mL reaction vessel, Ø15.2mm, 20mm depth	■	■	■	■	■	■
(4) 18900003	Purple quarter pie, 4 holes, 20 mL reaction vessel, Ø28mm, 24mm depth	■	■	■	■	■	■
(5) 18900004	Blue quarter pie, 4 holes, 30mL reaction vessel, Ø28mm, 30mm depth	■	■	■	■	■	■
(6) 18900005	Black quarter pie, 4 holes, 40mL reaction vessel, Ø28mm, 43mm depth	■	■	■	■	■	■
(7) 18900048	Green quarter pie, 6 holes, 8mL reaction vessel, Ø17.8mm, 26mm depth	■	■	■	■	■	■
(8) 18900049	Golden quarter pie, 4 holes, 16mL reaction vessel, Ø21.6mm, 31.7mm depth	■	■	■	■	■	■
(9) 18101006	Reaction block for 50mL round bottom flask (one flask capacity)			■	■	■	■
(10) 18101007	Reaction block for 100mL round bottom flask (one flask capacity)			■	■	■	■
(11) 18101008	Reaction block for 250mL round bottom flask (one flask capacity)			■	■	■	■
(12) 18101009	Reaction block for 500mL round bottom flask (one flask capacity)			■	■	■	■
(13) 18900019	F101 protective cover, temperature resistance of 135°C			■	■	■	■
(14) 18900016	PT1000-A, length of 230mm	■	■	■	■		■
(15) 18900136	PT1000-B, temperature sensor with glass coated, length of 230mm	■	■	■	■		■
(16) 18900017	Support clamp of PT1000	■	■	■	■		
(17) 18900148	Support clamp of PT1000						■

# Magnetic Hotplate Stirrers | Accessories



## Stirrer bars

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

### Models

MS7-H550-Pro MS7-H550-S MS-H-Pro <sup>+</sup> MS-H-Pro <sup>T</sup> MS-H-S MS-S	MS-H280-Pro MS-PA MS-PB	MS-H-S10 MS-M-S10 FlatSpin EcoStir
--	-------------------------------	---

Cat. No.	Size of stirrer bars (LxØ)[mm]	Suitable for max. stirrer bar 80mm	Suitable for max. stirrer bar 50mm	Suitable for max. stirrer bar 40mm
18900006	10mmx6mm	■	■	■
18900007	15mmx8mm	■	■	■
18900008	20mmx8mm	■	■	■
18900009	25mmx8mm	■	■	■
12500005	30mmx6mm	■	■	■
18900011	40mmx8mm	■	■	■
12500004	51mmx8mm	■	■	
18900013	65mmx8mm	■		
18900014	80mmx13mm	■		
18900015	Stirrer bar remover, length of 200mm	■	■	■

# Hotplates

## HP550-S LED Hotplate

### Features

- LED screen shows temperature
- Max. temperature up to 550°C
- Separate safety circuits with fixed safety temperature of 580°C
- External temperature control is possible by connecting the temperature sensor(PT 1000) with an accuracy at  $\pm 0.5^\circ\text{C}$
- Glass ceramic work plate provides excellent chemical-resistant performance and most efficient heat transfer
- The "HOT" warning will flash if the work plate temperature is above 50°C even when the hotplate is turned off



Wide range of accessories



Chemical resistance



Overheating protection



"HOT" warning prevents burning



### Specifications

Work plate dimension[WxD]
Work plate material
Power
Voltage Frequency
Heating Power
Heating position
Heating temperature range
Control accuracy of work plate
Safety temperature
Temperature display
Temperature display accuracy
External temperature sensor
Heating warning
Protection class
Dimension[WxDxH]
Weight

Permissible ambient temperature and humidity

### HP550-S

184x184mm(7 inch)
Glass ceramic
1010W
100-120/200-240V,50/60Hz
1000W
1
Room temp.-550°C,increment 5°C
$\pm 10^\circ\text{C}$
580°C
LED
$\pm 1^\circ\text{C}$
PT1000( $\pm 0.5^\circ\text{C}$ )
50°C
IP21
215x360x112mm
4.5kg
5-40°C, 80%RH

# Magnetic Stirrers

## MS7-S

### 7" Square Magnetic Stirrer

#### Features

- Speed range of 0-1500rpm
- Max. stirring quantity of H<sub>2</sub>O at 10L
- Ceramic work plate provides excellent chemical resistant performance



Chemical resistance



Strong magnetism

#### Specifications

Work plate dimension[WxD]	
Work plate material	Glass ceramic
Motor type	Shaded pole motor
Motor input power	15W
Motor output power	1.5W
Power	30W
Voltage	100-120/200-240V,50/60Hz
Stirring positions	1
Max. stirring quantity[H <sub>2</sub> O]	10L
Max. magnetic bar[length]	80mm
Speed range	0-1500rpm
Speed display	Scale
Protection class	IP21
Dimension[WxDxH]	215x360x112mm
Weight	3.8kg
Permissible ambient temperature and humidity	5-40°C, 80%RH

## MS-S

### Magnetic Stirrer

#### Features

- Maintenance free brushless DC motor
- Speed range of 0-1500 rpm
- Max. stirring quantity of H<sub>2</sub>O at 20L
- Stainless steel work plate cover with ceramic material provides good chemical resistance performance



#### F100 protective cover

for non-hotplate model,  
use with MS-S



#### MS7-S

Work plate dimension[WxD]	184x184mm(7inch)
Work plate material	Glass ceramic
Motor type	Shaded pole motor
Motor input power	15W
Motor output power	1.5W
Power	30W
Voltage	100-120/200-240V,50/60Hz
Stirring positions	1
Max. stirring quantity[H <sub>2</sub> O]	10L
Max. magnetic bar[length]	80mm
Speed range	0-1500rpm
Speed display	Scale
Protection class	IP21
Dimension[WxDxH]	215x360x112mm
Weight	3.8kg
Permissible ambient temperature and humidity	5-40°C, 80%RH

#### MS-S

Work plate dimension[WxD]	φ135mm(5 inch)
Work plate material	Stainless steel cover with ceramic
Motor type	Brushless DC motor
Motor input power	18W
Motor output power	10W
Power	30W
Voltage	100-240V,50/60Hz
Stirring positions	1
Max. stirring quantity[H <sub>2</sub> O]	20L
Max. magnetic bar[length]	80mm
Speed range	0-1500rpm
Speed display	Scale
Protection class	IP42
Dimension[WxDxH]	160x280x85mm
Weight	2.8kg
Permissible ambient temperature and humidity	5-40°C, 80%RH

# Magnetic Stirrers



**MS-PB**  
Magnetic Stirrer

## Features

- A wide range of 0-1500rpm
- Max. stirring quantity of H<sub>2</sub>O at 3L
- Nylon+GF housing provides a good performance of chemical resistance



Chemical resistance



Strong magnetism



LED display

## Specifications

Work plate dimension[WxD]	
Work plate material	Nylon+GF
Motor type	DC motor
Motor input power	5W
Motor output power	3W
Power	15W
Voltage	100-120/200-240V, 50/60Hz
Stirring positions	1
Max. stirring quantity[H <sub>2</sub> O]	3L
Max. magnetic bar[length]	50mm
Speed range	100-1500rpm
Speed display	LED
Protection class	IP42
Dimension[WxDxH]	150×260×80mm
Weight	1.8kg
Permissible ambient temperature and humidity	5-40°C, 80%RH

**MS-PA**  
LED Digital Magnetic Stirrer

## Features

- Digital speed control within the range of 100-1500rpm
- Max. stirring quantity of H<sub>2</sub>O at 3L
- LED display shows speed
- Nylon+GF housing provides a good performance of chemical resistance



## MS-PA

## MS-PB

φ135(5 inch)mm	φ135(5 inch)mm
Nylon+GF	Nylon+GF
DC motor	DC motor
5W	5W
3W	3W
15W	10W
100-120/200-240V, 50/60Hz	100-120/200-240V, 50/60Hz
1	1
3L	3L
50mm	50mm
100-1500rpm	0-1500rpm
LED	Scale
IP42	IP42
150×260×80mm	150×260×80 mm
1.8kg	1.8kg
5-40°C, 80%RH	5-40°C, 80%RH

# Magnetic Stirrers

## MS-M-S10 10-Position Magnetic Stirrer

### Features

- Maintenance-free brushless DC motor
- Speed range of 0-1100rpm
- Stainless steel work plate covered with silicone cushion, provides excellent performance of skid resistance



Skid resistance



Multiple position



## MS-M-S16 16-Position Magnetic Stirrer

### Features

- A space saving unit with 16 stirring positions and 4 independent speed control channels
- A wide range of speed from 0 to 1100rpm
- High magnetic adhesion prevents stirrer spin bar out of control
- Stainless steel work plate, covered with silicone cushion, provides excellent performance of skid resistance



### Specifications

Work plate Dimension[WxD]
Work plate material
Motor type
Motor input power
Motor output power
Power
Voltage
Stirring positions
Max. stirring quantity[H <sub>2</sub> O]
Max. magnetic bar[length]
Speed range
Speed display
Protection class
Dimension[WxDxH]
Weight
Permissible ambient temperature and humidity

### MS-M-S10

180x450mm
Stainless steel with silicone coating
Brushless DC motor
12W
4W
20W
100-120/200-240V,50/60Hz
10
0.4LX10
40mm
0-1100rpm
Scale
IP21
622x205x65mm
3.2kg
5-40°C, 80%RH

### MS-M-S16

365x345mm
Stainless steel with silicone coating
DC motor
12W
4W
20W
100-120/200-240V,50/60Hz
16(4 channel)
0.4LX16
40mm
0-1100rpm
Scale
IP21
500x380x65mm
6kg
5-40°C, 80%RH

# Magnetic Stirrers

## FlatSpin

### Ultra-flat Compact Magnetic Stirrer

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

#### Features

- A wide range of speed from 15 to 1500rpm
- Automatic reverse rotation for excellent mixing
- Protection class (IP65)
- PET top provides excellent chemical resistance
- Ultra silence and vibration-free



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

## EcoStir

### Economical Magnetic Stirrer

#### 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 sensors for other purposes

#### Specifications

Work plate Dimension	φ90mm
Work plate material	PET
Motor type	Motorless
Motor output power	3W
Power	5W
Voltage	100-120/200-240V,50/60Hz
Stirring positions	1
Max. stirring quantity[H <sub>2</sub> O]	0.8L
Max. magnetic bar[length]	40mm
Speed range	15-1500rpm
Speed setting	button
Protection class	IP65
Dimension [W x D x H]	175x120x15mm
Weight	0.3kg
Permissible ambient temperature and humidity	5-40°C,80%RH

#### FlatSpin

#### EcoStir

φ90mm	φ120mm
PET	PET
Motorless	Brushless DC motor
3W	1.2W
5W	7.2W
100-120/200-240V,50/60Hz	100-120/200-240V,50/60Hz
1	1
0.8L	1.5L
40mm	40mm
15-1500rpm	300-2000rpm
button	scale
IP65	IP21
175x120x15mm	150x145x50mm
0.3kg	0.3kg
5-40°C,80%RH	5-40°C,80%RH

# Magnetic Stirrers

MS-C series provide remarkable performance in constant speed stirring, cyclic stirring and dual speed stirring with various working modes for cell culture.

## MS-C-S1 Magnetic Stirrer for Cell Culture

## MS-C-S4 4-position Magnetic Stirrer for Cell Culture

### Features

- Programmable with multi mode selection
- Digital LED displays the actual speed
- Available in both single position and 4 position
- Low speed prevents cell damage



Design for low speed stirring



LED display



Programmable



Multi-mode selection

### Double Sidearm Celstir Spinner Flask

The Celstir Spinner Flask features an adjustable paddle blade impeller for better mixing.

Cat.No.      Volume  
18900235    500mL  
18900236    3L



### Specifications

Work plate dimension
Work plate material
Motor type
Motor output power
Power/Voltage
Stirring positions
Max. stirring quantity[H <sub>2</sub> O]
Max. magnetic bar[length]
Speed range
Speed display
Timer range
Data connector
Protection class
Dimension[WxDxH]
Weight
Permissible ambient temperature and humidity

MS-C-S1	MS-C-S4
φ105mm	φ105mm
Cast Aluminum	Cast Aluminum
Stepper Motor	Stepper Motor
15W	15W
100-120/200-240V,50/60Hz	100-120/200-240V,50/60Hz
1	4(each point distance 190mm)
3L	3Lx4
80mm	80mm
5-200rpm (resolution ±1rpm)	5-200rpm (resolution ±1rpm)
LED	LED
0-49min59s	0-49min59s
RS232	RS232
IP21	IP21
205x250x90mm	395x450x90mm
2.5kg	5.5kg
5-40°C, 80%RH	5-40°C, 80%RH



LCD display



Torque display



Speed adjusts with change in viscosity



Wide range of accessories

### Specifications

Max. stirring quantity[H <sub>2</sub> O]	
Motor type	
Motor input power	
Motor output power	
Voltage	
Power	
Speed range	
Speed display accuracy	
Speed display	
Torque display	
Overload protection display	
Max. torque	
Viscosity max.	
Chuck range diameter	
Dimension[WxHxD]	
Weight	
Protection class	
Permissible ambient temperature and humidity	
Data connector	

DLAB Overhead Stirrers can accomplish the most demanding tasks and provide high safety and increased performance. They are widely used in chemical synthesis, pharmaceutical synthesis, physical and chemical analysis, petrochemical industries, etc.

## OS20-Pro OS40-Pro

### LCD Digital Overhead Stirrer

#### Features

- High reliability and outstanding performance
- LCD display for precise monitoring of set and actual speeds, a wide range of speed from 50 to 2200rpm with control accuracy of ±3rpm
- Brushless DC motor for long life, maintenance free and explosion proof
- Torque trend display for real-time information on viscosity changes
- Safety circuits allow for safe stop function in anti-stall or overload conditions
- Smooth operation prevents accidental spillage and splashing
- Provides constant speed even with changes in viscosities of the samples
- Remote function provide PC control and data transmission
- Availability of auto-restart function in case of power loss for overnight operations.



#### OS20-Pro

20L	
brushless DC motor	
60W	
50W	
100-240V, 50/60 Hz	
70W	
50-2200rpm	
±3rpm	
LCD	
LCD	
LED lights	
40Ncm	
10000mPas	
0.5-10mm	
83x220x186mm	
2.8kg	
IP21	
5-40°C, 80%RH	
RS232	

#### OS40-Pro

40L	
brushless DC motor	
120W	
100W	
100-240V, 50/60 Hz	
130W	
50-2200rpm	
±3rpm	
LCD	
LCD	
LED lights	
60Ncm	
50000mPas	
0.5-10mm	
83x 220x 186mm	
2.8kg	
IP21	
5-40°C, 80%RH	
RS232	

## OS20-S

## OS40-S

### LED Overhead Stirrer

#### Features

- High reliability and outstanding performance
- A 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



Explosion-proof



Wide range of accessories



#### Specifications

Max. stirring quantity(H <sub>2</sub> O)	
Motor type	brushless DC motor
Motor input power	60W
Motor output power	50W
Voltage	100-240V, 50/60 Hz
Power	70W
Speed range	50-2200rpm
Speed display accuracy	±3rpm
Speed display	LED
Overload protection display	LED lights
Max. torque	40Ncm
Viscosity max.	10000mPas
Chuck range diameter	0.5-10mm
Dimension[WxHxD]	83x220x186mm
Weight	2.8kg
Protection class	IP21
Permissible ambient temperature and humidity	5-40°C, 80%RH

#### OS20-S

#### OS40-S

20L	40L
brushless DC motor	brushless DC motor
60W	120W
50W	100W
100-240V, 50/60 Hz	100-240V, 50/60 Hz
70W	130W
50-2200rpm	50-2200rpm
±3rpm	±3rpm
LED	LED
LED lights	LED lights
40Ncm	60Ncm
10000mPas	50000mPas
0.5-10mm	0.5-10mm
83x220x186mm	83x220x186mm
2.8kg	2.8kg
IP21	IP21
5-40°C, 80%RH	5-40°C 80%RH

# Overhead Stirrers | Accessories

## Universal plate stand

Dimension [W x D x H] : 200x310x780mm  
Material: stainless steel

Cat. No.

18900258



## Propeller stirrer

shaft length 400mm  
stirrer diameter 50mm  
**Material:** 316L stainless steel  
**Application:** Standard stirring element used at medium and high speeds

Cat. No.

18900071



## Straight stirrer

shaft length 40cm  
stirrer diameter 6cm  
**Material:** 316L stainless steel  
**Application:** Ideal for the mixing of low viscosity media at medium and high speeds

Cat. No.

18900072



## Paddle stirrer

shaft length 40cm  
stirrer diameter 6.8cm  
**Material:** 316L stainless steel  
**Application:** Suitable for samples needed gentle processing at low and medium speeds

Cat. No.

18900073



## Straight stirrer

shaft length 35cm  
stirrer diameter 7cm  
**Material:** PTFE coated  
**Application:** Ideal for the mixing of low viscosity media at medium and high speeds

Cat. No.

18900076



## Paddle stirrer

shaft length 35cm  
stirrer diameter 6.8cm  
**Material:** PTFE coated  
**Application:** Suitable for samples needed gentle processing at low and medium speeds

Cat. No.

18900077



## Propeller stirrer

shaft length 35cm  
stirrer diameter 6.5cm  
**Material:** PTFE coated  
**Application:** Standard stirring element, used at medium and high speeds

Cat. No.

18900075



## Centrifugal stirrer

shaft length 35cm  
stirrer diameter 8.5cm  
**Material:** PTFE coated  
**Application:** Two-bladed stirrer who's blades open with increasing speed. perfect for stirring in round vessels with narrow necks. Medium to high speeds required

Cat. No.

18900078



DLAB Vortex Mixers are ideal instruments for mixing liquid components in tubes, resuspension of cells, using an eccentric mechanism. They are widely used in biological and chemical analysis applications.

## MX-S Vortex Mixer

## MX-F Vortex Mixer

### Features:

- Touch operation or continuous mode
- Variable speed control from 0 to 2500rpm (MX-S)
- Fixed Speed 2500rpm (MX-F)
- Used for various mixing applications with optional adapters (MX-S)
- Specially designed vacuum suction feet for body stability
- Robust aluminum-cast construction



Wide range of accessories



### Specifications

	MX-S (Adjustable speed)	MX-F (Fixed speed)
Voltage	100-120V/200-240V,50/60Hz	100-120V/200-240V,50/60Hz
Power	60W	60W
Mixing motion	Orbital	Orbital
Orbital diameter	4mm	4mm
Motor type	Shaded pole motor	Shaded pole motor
Motor rating input	58W	58W
Motor rating output	10W	10W
Speed range	0-2500rpm	2500rpm
Speed display	Scale	-
Run type	Touch operation/Continuous	Touch operation/Continuous
Dimension[WxHxD]	127×130×160mm	127×130×160mm
Weight	3.5kg	3.5kg
Permissible ambient temperature	5-40°C	5-40°C
Permissible relative humidity	80%RH	80%RH
Protection class	IP21	IP21

## VT1.1 Standard top (Default)

for <Ø30mm tubes and small vessels

Cat. No. 18900034



## MX-E Economic Vortex Mixer

### Features:

- The latest design of the tube mixers for a small amount of sample mix;
- Touch operation;
- Fixed speed: 3000rpm;
- Small and beautiful;
- DC brushless motor, stable performance.

### Specifications

#### MX-E

Power supply [VAC]	100-240
Frequency [Hz]	50/60
Power [W]	12
Mixing motion	Orbital
Revolving diameter [mm]	4.8
Motor rating output[W]	10
Rotational speed [rpm]	3000
Operating mode	Inching
External dimension [mm]	133×133×80
Dimension of packing box [mm]	250×185×130
Weight [kg]	0.6
Allowable environment temperature [°C]	5-40
Permissible Ambient Temperature	≤80%RH
Protection class	IP21

# Vortex Mixers | Accessories



## VT1.2 Tube holding rod

used with tube adapters  
Cat. No. 18900044



## VT1.3 Universal top plate

Ø 100mm  
Cat. No. 18900035



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



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



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



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



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



**VT1.3.6 Platform pad**  
for <Ø99mm tubes and small vessels  
Cat. No. 18900043



## Application of accessories



### Accessories

### Adjustable speed model (0-2500rpm)

	Touch mode (High speed area)	Continuous mode (Low speed area)
VT1.1	Y	Y
VT1.2 + VT1.3.1	Y	
VT1.2 + VT1.3.2	Y	
VT1.2 + VT1.3.3	Y	
VT1.2 + VT1.3.4	Y	
VT1.2 + VT1.3.5	Y	
VT1.3 + VT1.3.6	Y	
VT1.3 + VT1.3.1		Y
VT1.3 + VT1.3.2		Y
VT1.3 + VT1.3.3		Y
VT1.3 + VT1.3.4		Y
VT1.3 + VT1.3.5		Y



## VT1.3.7 vacuum chuck

made of rubber  
Cat. No. 18900158



# Microplate Mixers

DLAB Microplate Mixer is used for holding single or double microplates. The compact shape 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.

## MX-M Microplate Mixers

### Features:

- A wide range of speed from 0 to 1500rpm
- Used for various mixing applications with optional adapters
- Maintenance-free brushless DC motor



Brushless DC motor



Wide range of accessories



**PS1.2 Microplate clamp**

Cat. No.18900042



**PS1.1 Universal top plate**

Used with tube adapters

Cat. No.18900067



**VT1.3.1 tube adapter**

for 48 holes test tubes, Ø6mm

Cat. No.18900020



**VT1.3.2 tube adapter**

for 15 holes test tubes, Ø10mm

Cat. No.18900021



**VT1.3.3 tube adapter**

for 12 holes test tubes, Ø12mm

Cat. No.18900022



**VT1.3.4 tube adapter**

for 8 holes test tubes, Ø16mm

Cat. No.18900023



**VT1.3.5 tube adapter**

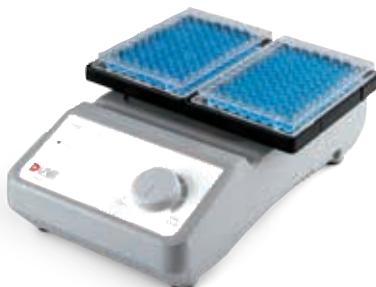
for 8 holes test tubes, Ø20mm

Cat. No.18900024



**PS1.2 Microplate clamp**

Cat. No.18900042



**MXM-116**

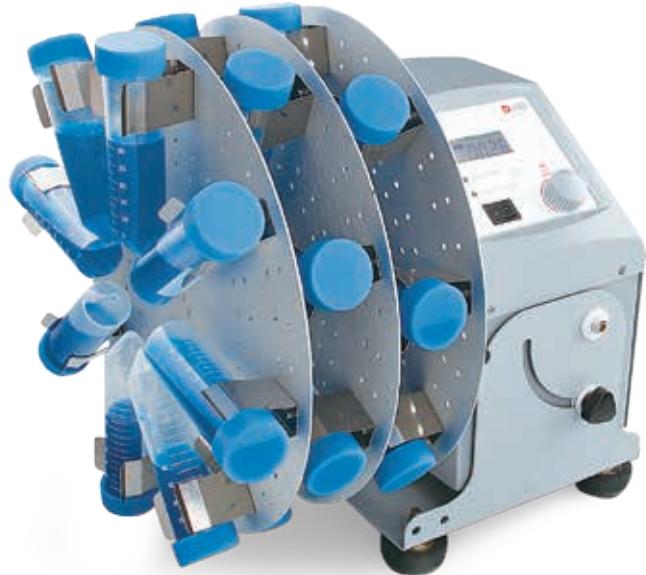
Double microplate clamps

Cat. No.18900079

### Specifications

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

# Rotators



DLAB rotators give gentle but effective mixing of biological samples held in 1.5mL to 50mL tubes, and are used in a variety of applications including immune precipitations, prevention of blood coagulation, latex diagnostics, etc.

## MX-RD-Pro LCD Digital Rotator

### Features

- Electronic adjustment of speed and time
- LCD display of speed and time
- Speed range from 10 to 70rpm
- Rolling action, gives gentle but effective mixing
- Adjustable mixing angle from 0 to 90°
- A wide variety of accessories are available

## MX-RD-E Economical Rotator

### Features

- Provides gentle and effective mixing of biological samples
- Adjustable speed range from 0 to 80rpm
- A wide variety of accessories are available



LCD display



Adjustable angle



Wide range of accessories



### Specifications

Motor type	
Tilt angle	
Speed range	
Speed display	
Timer display	
Timer	1-1199min
Operation mode	Continuous / timer
Voltage	100-240V, 50/60Hz
Power	40W
Dimension [DxWxH ]	280x210x300mm
Permissible ambient temperature and humidity	5-40°C, 80%RH
Protection class	IP21

### MX-RD-Pro

DC motor	
0-90°	
10-70rpm	
LCD	
LCD	
1-1199min	
Continuous / timer	
100-240V, 50/60Hz	
40W	
280x210x300mm	
5-40°C, 80%RH	
IP21	

### MX-RD-E

DC motor	
-	
0-80rpm	
Scale	
Scale	
-	
Continuous	
100-240V, 50/60Hz	
20W	
300x220x310mm	
5-40°C, 80%RH	
IP21	

## MX-RL-Pro LCD Digital Rotator

### Features

- Electronic adjustment of speed and time
- LCD display speed and time
- Speed range from 10 to 70 rpm
- Provides gentle but effective rolling
- A wide variety of accessories are available



## MX-RL-E Economical Rotator

### Features

- Provides gentle but effective rolling
- Adjustable speed range from 0 to 80 rpm
- A wide variety of accessories are available



LCD display



Wide range of accessories



### Specifications

Motor type	
Speed range	
Speed display	
Timer display	
Timer	
Operation mode	
Voltage	
Power	
Dimension[DxWxH]	
Permissible ambient temperature and humidity	
Protection class	

MX-RL-Pro	MX-RL-E
DC motor	DC motor
10-70rpm	0-80rpm
LCD	Scale
LCD	Scale
1-1199min	-
Continuous/timer	Continuous
100-240V, 50/60Hz	100-240V, 50/60Hz
40W	20W
220x510x260mm	150X530X190mm
5-40°C,80%RH	5-40°C,80%RH
IP21	IP21

# Rotators | Accessories



## Disk Accessories Type-1

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

Cat. No.

18900160



## Disk Accessories Type-2

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

Cat. No.

18900161



## Disk Accessories Type-3

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

Cat. No.

18900162



## Disk support rods

4pcs in a group  
use with disk accessories

Cat. No.

18900140

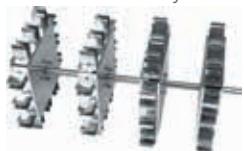


## Rotisserie Accessory Type-1

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

Cat. No.

18900142



## Rotisserie Accessory Type-2

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

Cat. No.

18900143



## Rotisserie Accessory Type-3

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

Cat. No.

18900144



## Rotisserie Accessory Type-4

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

Cat. No.

18900145



## Rotisserie Accessory Type-5

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

Cat. No.

18900146



## Rotisserie Accessory Type-6

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

Cat. No.

18900147



## Plastic Clips

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



# Tube Rollers



DLAB tube rollers provide a gentle and highly efficient rolling motions, ideal 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.



LCD display



Timer

## MX-T6-Pro

### LCD Digital Tube Roller

#### Features

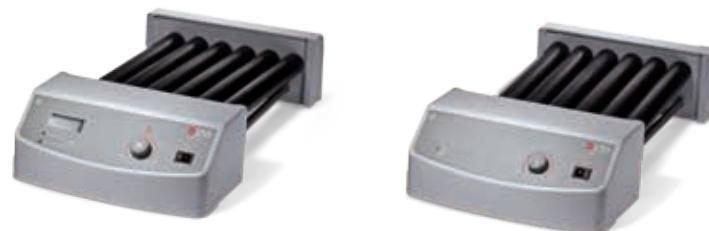
- LCD displays the speed and time
- Speed range of 10-70rpm
- Six roller design for gentle rolling and easy to clean
- Continuous or timer operation

## MX-T6-S

### Tube Roller

#### Features

- Speed range of 0-70rpm
- Six roller design for gentle rolling and easy to clean



## Specifications

Amplitude
Motor type
Rocking motion
Max. load capacity
Number of rollers
Roller size[length]
Speed range
Speed display
Timer
Timer display
Time setting range
Operation mode
Voltage
Power
Dimension [DxWxH]
Weight
Permissible ambient temperature and humidity
Protection class

### MX-T6-Pro

24mm
DC motor
Rocking and rolling
4kg
6
280mm
10 -70rpm
LCD
Yes
LCD
1-1199min
Continuous/timer
100-240V,50/60Hz
30W
450×260×120mm
5.1kg
5-40°C,80%RH
IP21

### MX-T6-S

24mm
DC motor
Rocking and rolling
4kg
6
280mm
0-70rpm
Scale
-
-
Continuous
100-240V,50/60Hz
25W
450×260×120mm
4.5kg
5-40°C,80%RH
IP21

# Shakers

DLAB orbital and linear shakers are ideal for almost any vessel from microcentrifuge tubes through petri dishes and microtitre plates to conical flasks.

## SK-O330-Pro

## SK-O180-Pro

### LCD Digital Orbital Shaker

#### Features

- Max. load capacity is 7.5kg(O330) and 2.5kg(O180) with platform
- Double LCDs for independent display of time and speed
- Used with a wide variety of accessories
- Maintenance-free brushless DC motor
- Over speed detection and protection
- Remote function provides PC control and data transmission



## SK-O180-S

### LED Digital Orbital Shaker

#### Features

- Max.load capacity is 3kg with platform
- Double LEDs for independent display of time and speed
- Speed range of 40-200rpm
- Wide range of platforms for use with a variety of vessels



## SK-O180-E

### Economical Digital Orbital Shaker

#### Features

- Max. load capacity is 3kg with platform
- Speed range of 0-200rpm
- Wide range of platforms for use with a variety of vessels

# Shakers



Timer



Wide range of accessories



## Specifications

	SK-O330-Pro	SK-O180-Pro	SK-O180-S	SK-O180-E
Orbital diameter	10mm	4mm	20mm	20mm
Max. load capacity (with platform)	7.5kg	2.5kg	3kg	3kg
Motor type	Brushless DC motor	Brushless DC motor	DC motor	DC motor
Motor input power	28W	28W	16W	16W
Motor output power	15W	15W	10W	10W
Speed range	100-500rpm	100-800rpm	40-200rpm	0-200rpm
Speed display	LCD	LCD	LED	scale
Timer display	LCD	LCD	LED	-
Time settings range	1min-19h59min	1min-19h59min	1min-19h59min	-
Voltage	100-240V,50/60Hz	100-240V,50/60Hz	100-240V,50/60Hz	100-240V,50/60Hz
Power	30W	30W	20W	20W
Weight	13.5kg	8.1kg	3.1kg	3.1kg
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
Dimension[W×D×H]	370×420×100mm	300×340×100mm	270×330×110mm	270×330×110mm
Protection class	IP21	IP21	IP21	IP21
Data connector	RS232	RS232	-	-



# Shakers

## SK-L330-Pro

## SK-L180-Pro

### LCD Digital Linear Shaker

#### Features

- Max. load capacity is 7.5kg(L330) and 2.5kg(L180) with platform
- Double LCDs for independent display of time and speed
- Wide range of platforms for use with a variety of vessels
- Maintenance-free brushless DC motor
- Over speed detection and protection



## SK-L180-S

### LED Digital Linear Shaker

#### Features

- Max. load capacity is 3kg with platform
- Double LEDs for independent display of time and speed
- Speed range of 40-200 rpm
- Wide range of platforms for use with a variety of vessels



## SK-L180-E

### Economical digital Linear Shaker

#### Features:

- Max. load capacity is 3kg with platform
- Speed range of 0-200 rpm
- Wide range of platforms for use with a variety of vessels



# Shakers



Timer



Wide range of accessories



## Specifications

	SK-L330-Pro	SK-L180-Pro	SK-L180-S	SK-L180-E
Amplitude	10mm	4mm	20mm	20mm
Max. load capacity (with platform)	7.5kg	2.5kg	3kg	3kg
Motor type	Brushless DC motor	Brushless DC motor	DC motor	DC motor
Motor input power	28W	28W	16W	16W
Motor output power	15W	15W	10W	10W
Speed range	100-350rpm	100-350rpm	40-200rpm	0-200rpm
Speed display	LCD	LCD	LED	scale
Timer display	LCD	LCD	LED	-
Time settings range	1min-19h59min	1min-19h59min	1min-19h59min	-
Voltage	100-240V, 50/60Hz	100-240V, 50/60Hz	100-240V, 50/60Hz	100-240V, 50/60Hz
Power	30W	30W	20W	20W
Weight	13.5kg	8.1kg	3.1kg	3.1kg
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
Dimension[WxDxH]	370x420x100mm	300x340x100mm	270x330x110mm	270x330x110mm
Protection class	IP21	IP21	IP21	IP21
Data connector	RS232	RS232	-	-

# Shakers

DLAB rocking and 3D shakers provide perfect solution in electrophoresis gel dyeing/discoloration, sample washing, molecular hybridization, immunoprecipitation, Western blot and cell culture.

## SK-R330-Pro LCD Digital Rocking Shaker



### Features

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



## SK-R1807-E Economical Rocking Shaker

### Features:

- Rocking motion angle 7°
- Max. load capacity is 3kg with platform
- Speed range of 0-80rpm
- Wide range of platforms for use with a variety of vessels

## SK-R1807-S LED Digital Rocking shaker

### Features

- Rocking motion angle 7°
- Max. load capacity is 3kg with platform
- Speed range of 10-80rpm
- Double LEDs for independent display of time and speed
- Wide range of platforms for use with a variety of vessels



# Shakers



Timer



Wide range of accessories



## Specifications

	SK-R330-Pro	SK-R1807-S	SK-R1807-E
Tilt angle	9°	7°	7°
Max. load capacity (with platform)	10kg	3kg	3kg
Motor type	DC motor	DC motor	DC motor
Motor input power	40W	16W	16W
Motor output power	24W	10W	10W
Speed range	10-70rpm	10-80rpm	0-80rpm
Speed display	LCD	LED	-
Timer display	LCD	LED	-
Time settings range	1min-19h59min	1min-19h59min	-
Voltage	100-240V, 50/60Hz	100-240V, 50/60Hz	100-240V, 50/60Hz
Power	50W	20W	20W
Weight	9kg	3.2kg	3.2kg
Permissible ambient temperature and humidity	5-40°C, 80%RH	5-40°C, 80%RH	5-40°C, 80%RH
Dimension[WxDxH]	360x410x200mm	270x330x130mm	270x330x130mm
Protection class	IP21	IP21	IP21





## SK-D3309-Pro

### LCD Digital 3D Shaker

#### Features

- Three-dimensional rocking motion with an angle of 9°
- Max. load capacity is 5kg with platform
- Speed range of 10-70rpm
- Double LCDs for independent display of time and speed
- Various of platform accessories



## SK-D1807-S

### LED Digital 3D shaker

#### Features

- Three-dimensional rocking motion with the angle of 7°
- Max. load capacity is 3kg with platform
- Speed range of 10-80rpm
- Double LEDs for independent display of time and speed
- Various of platform accessories



## SK-D1807-E

### Economical 3D Shaker

#### Features

- Three-dimensional rocking motion with the angle of 7°
- Max. load capacity is 3kg with platform
- Speed range of 0-80rpm
- Wide range of platforms for use with a variety of vessels

# Shakers



Timer



Wide range of accessories



## Specifications

	SK-D3309-Pro	SK-D1807-S	SK-D1807-E
Tilt angle	9°	7°	7°
Max. load capacity (with platform)	5kg	3kg	3kg
Motor type	DC motor	DC motor	DC motor
Motor input power	40W	16W	16W
Motor output power	24W	10W	10W
Speed range	10-70rpm	10-80rpm	0-80rpm
Speed display	LCD	LED	scale
Timer display	LCD	LED	-
Time settings range	1min-19h59min	1min-19h59min	-
Voltage	100-240V, 50/60Hz	100-240V, 50/60Hz	100-240V, 50/60Hz
Power	50W	20W	20W
Weight	9kg	2.7kg	2.7kg
Permissible ambient temperature and humidity	5-40°C, 80%RH	5-40°C, 80%RH	5-40°C, 80%RH
Dimension[WxDxH]	360x430x106mm	270x330x130mm	270x330x130mm
Protection class	IP21	IP21	IP21
Data connector	-	-	-

## Shakers | Accessories



SK330.5



Cat. No.

18900155

Description

Dish platform with non-slip mat and  
fixed string (8pcs)  
Dimension[WxD]: 30x28.5cm

SK-O330-Pro  
SK-L330-Pro  
SK-R330-Pro  
SK-D3309-Pro

SK-O180-Pro/S/E  
SK-L180-Pro/S/E  
SK-R1807-S/E  
SK-D1807-S/E

SK180.4



18900185

Dish attachment with non-slip mat  
Dimension[WxD]: 24x21.5cm

SK180.5



18900200

Large size dish attachment with  
non-slip mat  
Dimension[WxD]: 30x23cm

SK180.6



18900326

Dish attachment with non-slip mat  
Dimension[WxD]: 28x28cm

SK330.1



18900027

Universal attachment with 4 bars  
Dimension[WxD]: 30x30cm

SK330.3



18900040

Lengthways roller attachment  
Dimension[WxD]: 30x30cm

SK180.1



18900025

Universal attachment with 3 bars  
Dimension[WxD]: 24x24cm

SK180.3



18900038

Lengthways roller attachment  
Dimension[WxD]: 24x24cm



18900036

Bar for SK330.1 universal  
attachment



18900037

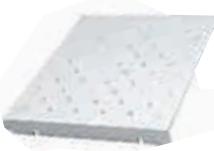
Bar for SK180.1 universal  
attachment



18900280

Connect sticks  
for double dishes shaker

## Shakers | Accessories

	Cat. No.	Description	SK-O330-Pro SK-L330-Pro SK-R330-Pro SK-D3309-Pro	SK-O180-Pro/S/E SK-L180-Pro/S/E SK-R1807-S/E SK-D1807-S/E
				
	18900028	Fixing clip attachment	■	
	18900026	Fixing clip attachment		■
	18900029	Fixing clip for flask volume 25mL, used with SK330.2[28pcs] SK180.2[9pcs]	■	■
	18900030	Fixing clip for flask volume 50mL, used with SK330.2[16pcs] SK180.2[9pcs]	■	■
	18900031	Fixing clip for flask volume 100mL, used with SK330.2[16pcs] SK180.2 [9pcs]	■	■
	18900032	Fixing clip for flask volume 200/250 mL, used with SK330.2[9pcs] SK180.2[4pcs]	■	■
	18900033	Fixing clip for flask volume 500mL, used with SK330.2[9pcs] SK180.2[2pcs]	■	■

# Homogenizers

## D-160

### Handheld Homogenizer

#### Features:

- Ideal for manual operation due to its light weight and ergonomic design
- Processing range: 0.1-50mL or 1-250mL
- 316L stainless steel shafts are fully autoclavable and inert for highly corrosive solutions
- All shafts are interchangeable for easy dismantling and cleaning.
- 6 modes of motor speed from 8,000 to 30,000 rpm



#### Specifications

Power Supply	110-120V/60Hz 220-240V / 50-60 Hz
Motor Type	Universal motor
Speed Range	8000-30000rpm
Max. Circum. Speed	6.3-14m/sec
Speed Control Dial knob	6 stage
Working Volume [ H <sub>2</sub> O ]	0.1-50mL (Dispersing shaft DS-160/5) 1-250mL (Dispersing shaft DS-160/10)
Max. Viscosity	5,000mPas
Material of Dispersing Shaft	SS 316L stainless steel, PTFE
Weight	0.6 kg
Dimension [L x W x H]	46mm x 55mm x 230mm
Noise	72 dB(A)
Operating Environment	0-40°C, 85% rel. humidity
Protection Class	IP20

## D-500

### Homogenizer

#### Features:

- Viscosity up to 10,000 mPas
- 6 modes of motor speed from 10,000 to 30,000 rpm
- All-round safety guarantee for motor drive, overload protection and smooth operation
- 316L stainless steel shafts are fully autoclavable and inert for highly corrosive solutions
- Easy dismantling for fast preparation
- All shafts are interchangeable for easy dismantling and cleaning

D-160	D-500
110-120V/60Hz 220-240V / 50-60 Hz	110-120V/60Hz 220-240V/50-60 Hz
160 W	500 W
AC carbon brush motor	AC carbon brush motor
8000-30000rpm	10000-30000rpm
6.3-14m/sec	22.7-36m/sec
6 stage	6 stage
0.1-50mL (Dispersing shaft DS-160/5)	10-40000mL (Optional)
1-250mL (Dispersing shaft DS-160/10)	10,000 mPas
5,000mPas	SS 316L stainless steel, PTFE
SS 316L stainless steel, PTFE	1.3 kg
0.6 kg	70mm x 70mm x 255mm
46mm x 55mm x 230mm	79 dB(A)
72 dB(A)	0-40°C, 85% rel. humidity
0-40°C, 85% rel. humidity	IP20
IP20	IP20



## D-500

### Homogenizer

#### DS-500/1

Volume 10-5000mL  
 Max. Circum. Speed 22.7m/sec  
**Material:** 316L  
**Application:** for solid/liquid media



**Cat. No.**

18201331

#### DS-500/2

Volume 10-5000mL  
 Max. Circum. Speed 22.7m/sec  
**Material:** 316L  
**Application:** for water and oil mixing



**Cat. No.**

18201332

#### DS-500/5

Volume 10-5000mL  
 Max. Circum. Speed 5,8m/sec  
**Material:** 316L  
**Application:** Ideal for all homogenizing applications such as tissue homogenization, cell disruption, suspensions and clinical and medical diagnostics



**Cat. No.**

18900117

## D-160

### Handheld Homogenizer

#### DS-160/5

Volume 0.1-50ml  
 Max. Circum. Speed 6.3m/sec  
**Material:** 316L  
**Application:** small amounts of solid-liquid mixed

#### DS-160/10

Volume 10-5000mL  
 Max. Circum. Speed 22.7m/sec  
**Material:** 316L  
**Application:** small amounts of solid-liquid mixed

**Cat. No.**

18201329



**Cat. No.**

18201330



### Stator



S20C



S20F



S30C



S30F



S40C



### Rotor



SR20



SR30



CR20



CR30



MR20



MR30



ER20



ER30

# Centrifuges



# Palm Micro Centrifuges

## D1008 series

### Palm Micro Centrifuge

#### Features

- Ideal for microfiltration and quick spin-downs
- Easy-to-use with dual start/stop function
- 7000rpm fixed speed
- Compatible with 2mLx8 and PCR8x2 rotors
- Quiet running, noise level ≤45dB
- Rotor change without tools
- Accelerates and brakes in seconds
- Available in two colors i.e., green, blue



Quiet operation



Vibration free



CE FCC



#### Specifications

#### D1008

Max. Speed	7000rpm
Max. RCF	2680×g
Rotor Capacity	0.2/0.5/1.5/2.0mLx8; 0.2mLx16 PCR strips or 0.2mLx2 PCR 8 strips
Run Time	Continuous operation
Driving Motor	DC motor
Power	AC100-240V/50Hz/60Hz 20W
Noise Level	≤45dB
Dimension [DxWxH]	160x170x122mm
Weight	0.5kg
Certification	CE cTÜVs FCC MCA

# Palm Micro Centrifuges | Rotors and Adapters

## Available rotors



### A08-2

Cat. No. 19400015

Max. speed:7000rpm

Max. RCF:2680×g

Rotor capacity:2mL/1.5mLx8,0.2mLx8,0.5mLx8

Rotor material:High strength plastic

Available rotor adapters:SA02P2, SA05P2



### A02-PCR8

Cat. No. 19400017

Max. speed: 7000rpm

Max. RCF: 2680×g

Rotor capacity: 0.2mL×16 PCR strips,0.2 mL×2 PCR 8 strips

Rotor material: High strength plastic

## Available adapters



### SA02P2

Cat. No. 19400029

0.2mL rotor adapter

Used with A08-2 rotor

8pcs/pk



### SA05P2

Cat. No. 19400026

0.5mL rotor adapter

Used with A08-2 rotor

8pcs/pk

# High Speed Micro-Centrifuges

## High Speed Micro Centrifuge

High speed micro centrifuges are widely used in physical and chemical analysis, biochemistry, cellular and molecular biology, clinical Labs ideal for high-end research applications

- Sedimentation of cells and viruses
- Separation of sub-cellular organelles
- Isolation of macromolecules such as DNA, RNA, proteins or lipids

## Precise control

- Brushless DC motor accelerates quickly to the set speed
- High accuracy of speed in  $\pm 20$  rpm
- Digital timer adjustable from 30 sec. to 99 min or set for continuous run
- Timer starts only when the set speed is achieved and then maintains the accuracy of separation time.

## Conforms to international safety standards and regulations

- DLAB centrifuges passed CE, cTUVus and FCC requirements. certifications, they are certified by TUV. All DLAB test items are proven with the high level of reliability and confidence according to IEC/EN 61010-1, and pass MCA test according to IEC/EN61010-2-20, including explosion-proof and bio-safe tests.
- Quiet operation, maximum reliability
- High strength metal casing ensures security during centrifugal process
- Dual door interlock design for safety(D3024 & D3024R)
- Gentle braking at low speed with efficient separation

## Ergonomic design

- User-friendly large LCD display shows real-time information
- Both RPM or G-force can be set and displayed
- The parameters can be modified after the set speed is reached.
- The short spin function is used for quick spins by pressing and holding PULSE key. The centrifuge speed can be accelerated and held at the target speed
- Automatic lid-lock release prevents sample warming and allows easy access(excluding D3024R)
- Concise display and Sound-alert



# D2012 series

## D2012 plus

### High Speed Mini Centrifuge



Brushless DC motor



LCD display



#### 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/2mLx12
Run Time	30sec-99min/Continuous
Driving Motor	Brushless DC motor
Safety Devices	Door interlock, Over-speed detection, Over-temperature detection, Automatic internal diagnosis
Power	Single-phase, AC100V-240V, 50Hz/60Hz, 3A 100W
Noise level	≤54dB
Acceleration /Braking time	11s ↑ / 9s ↓
Dimension[DxWxH]	255×245×140mm
Weight	6kg
Certification	EMC, CE, FCC, ICES, cTUVus, CB
Advanced features	Speed/RCF switch, Short-time run function, sound-alert function

#### Features

- Powerful centrifugal force of 15100×g and max. speed of 15000rpm ideal for various applications
- Brushless DC motor drive quickly accelerates the rotor to set speed
- Quiet working, Low noise ≤56dB
- D2012 Plus is proven by IEC/EN 61010-1
- D2012 Plus passed the rigorous explosion-proof test and accredited with CE, cTUVus, FCC certificates, and MCA test. MCA test according to IEC/EN61010-2-20

#### Available rotors



Cat. No. 19400010

#### A12-2P

for D2012plus only

Max. speed: 15000rpm

Max. RCF: 15100×g

Rotor capacity: 2mL/1.5mLx12,0.2mLx12,0.5mLx12

Rotor material: High strength plastic

Available rotor adapters: A02P2,A05P2

#### Available adapters



Cat. No. 19500001

#### A02P2

0.2mL rotor adapter

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

Cat. No. 19500002

#### A05P2

0.5mL rotor adapter

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

### D3024

#### High Speed Micro Centrifuge

##### Unique Features

- Special multi-flow air cooling design with patent ensures fast cooling of the rotor and low energy consumption
- Unique temperature display appropriate for gentle handling of sensitive samples
- Bio-safe rotor/anti-sample overflow prevents accidental leakage during centrifugal process allowing risk-free microbial contamination
- High strength aluminum alloy rotor can be fully autoclaved for unlimited service life
- Four rotors are optional complete with 24 places 1.5/2.0mL tubes, bigger 5.0mL, smaller 0.2mL and 0.5mL tubes with adapters



### D3024R

#### High Speed Refrigerated Micro Centrifuge

##### Powerful cooling system for precise temperature control

- Pre-cooling program ensures optimal protection of the sample before warming
- Guaranteed 2°C cooling within only 7 minutes of both chamber and samples even at maximum speed and capacity utilization
- Sound-alert allows your undivided attention on other tasks warming
- Lid lock facility allows for internal temperature maintenance even after centrifugation
- Intermittent temperature control mode, CFC-free refrigerant and low carbon life rotor capacity
- Bio-safe rotor/anti-sample overflow prevents accidental leakage during centrifugal process allowing risk-free microbial contamination
- High strength aluminum alloy rotor can be fully autoclaved for unlimited service life
- Four rotors are optional complete with 24 place 1.5/2.0mL tubes, bigger 5.0mL, smaller 0.2mL and 0.5mL tubes with the use of adapters
- Quiet running, noise level ≤ 54dB

# D3024 series



Brushless DC motor



Wide range of rotors



CE FC



CE FC

## Specifications

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

## D3024

15000rpm(200-15000rpm), increment:10rpm
21380xg, increment:10xg
±20 rpm

## D3024R

15000rpm(200-15000rpm), increment:10rpm
21380xg, increment: 10xg
±20 rpm

5mL×18, 5mL culture tubex12  
0.2mL/0.5mL/1.5mL/ 2mL×24,  
0.5mL×36,  
PCR8×4

30sec-99min/Continuous

Brushless DC motor

Dual door interlock,  
Over-speed detection,  
Over-temperature detection,  
Automatic internal diagnosis

Single-phase,  
AC200V-400V, 50Hz/60Hz, 5A,  
AC100V-120V, 50Hz/60Hz, 8A  
200W

25s ↑ 25s ↓

280×364×266mm

12kg

CE cTÜVs FCC MCA

Speed/RCF switch; Short-time run function;  
sound-alert function

≤64dB

Single-phase,  
AC200V-240V, 50Hz/60Hz, 10A,  
AC100V-120V, 50Hz/60Hz, 10A  
400W

25s ↑ 25s ↓

338×580×324mm

30kg

CE cTÜVs FCC MCA

Speed/RCF switch; Short-time run function;  
sound-alert function

≤56dB





DLAB rotors are manufactured from military-industrial grade aluminum alloy with high mechanical strength for precise running and safety (excludes D2012 plus rotor)

- Every rotor can reach a max. speed of 15000rpm
- Rotors are seated on a tapered shaft, concentric and self-aligning, perfect to achieve running stability at high speeds
- D3024 & D3024R with bio-safe rotors/ anti-sample overflow prevents accidental leakage and risk free centrifugal process
- microbial contamination. D3024 & D3024R rotors have passed MCA test according to IEC/EN61010-2-20, including explosion-proof and bio-safe tests
- High strength aluminum alloy rotors are fully autoclavable and provide unlimited service life (D2012 plus rotor not included)
- Powerful cooling system minimizes rotor heating. D3024 rotors heat up to  $> 10^{\circ}\text{C}$  and D2012 rotors less than  $8^{\circ}\text{C}$  after running an hour

Seals within the aluminum alloy rotor

## Rotor Features

### Fully autoclavable

High strength aluminum alloy rotors are fully autoclavable, withstanding steam sterilizing at  $121^{\circ}\text{C}$  for 20 minutes, with unlimited service life.

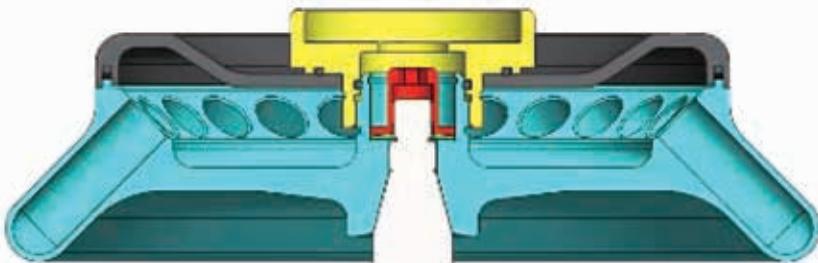
### Bio-safe

Aspired to be the top-of-the-line model, D3024 & D3024R rotors are designed to prevent sample leakage. Each and every rotor is hermetically sealed by three rubber seals.

### Explosion-proof

DLAB centrifuges are constructed under MCA conditions according to IEC/EN61010-2-20, causing disruption by partially cutting and overloading rotor assembly, and guarantee that no part shall be detached to cause danger to person or the environment.

Three rubber seals fitted to achieve bio-safe condition



# D3024 series | Rotors and Adapters

## Available rotors



### AS24-2

for D3024 & D3024R

Cat. No. 19400006

Max. speed: 15000rpm

Max. RCF: 21380xg

Rotor capacity: 2mL/1.5mLx24/0.2mLx24/0.5mLx24

Rotor material: Aluminum alloy

Bio-safe(Bio sealing): Yes

Available rotor adapters: A02P2,A05P2



### AS12-V5

for D3024 & D3024R

Cat. No. 19400032

Max. speed: 15000rpm

Max. RCF: 21380xg

Rotor capacity: 5mLx12(Eppendorf tube)

Rotor material: Aluminum alloy

Bio-safe(Bio sealing): Yes



### AS36-05

for D3024 & D3024R

Cat. No. 19400007

Max. speed: 15000rpm

Max. RCF: 21380xg

Rotor capacity: 0.5mLx36,0.2mLx36

Rotor material: Aluminum alloy

Bio-safe(Bio sealing): Yes

Available rotor adapters: A02P05



### AS4-PCR8

for D3024 & D3024R

Cat. No. 19400008

Max. speed: 15000rpm

Max. RCF: 21380xg

Rotor capacity:0.2mL/PCR8x4

Rotor material: Aluminum alloy

Bio-safe(Bio sealing): Yes

# D3024 series | Rotors and Adapters



## AS18-5

for D3024 & D3024R

Cat. No. 19400012

Max. speed :15000rpm

Max. RCF:21380xg

Rotor capacity:5mL×18 ( Round-Bottom tube )

Rotor material:Aluminum alloy

Bio-safe(Bio sealing):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



## A05P2

Cat. No. 19500002

0.5mL rotor adapter

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



## A02P05

Cat. No. 19500003

0.2mL rotor adapter

Used with AS36-05 rotor  
36pcs/pk



# DM1424 series



DLAB hematocrit centrifuge with AC24P hematocrit rotor is used for determination of volume fractions of erythrocytes in blood for diagnostic purposes and doping tests. Also it is used for the photometric determination of bilirubin content in neonate blood samples. Hematocrit centrifuge with A24-2P tube rotor, can be used for extraction of DNA and RNA.

## DM1424 Hematocrit Centrifuge

### Features:

- Speed range of 200-14000rpm, max. RCF 18620×g
- Precise control of speed and time separately
- Easy operation with intuitive menu and easy-to-read display
- Maintenance-free brushless DC motors
- Pulse operation for quick spins
- Rotor capacity: Hematocrit rotor:
  - Hematocrit rotor: 24 capillary max. speed: 12000rpm
  - Tube rotor: 1.5/2mLx24 max. speed: 14000rpm



CE FC

### Specifications

Speed Range
Max. RCF
Speed Accuracy
Rotor Capacity
Run Time
Motor
Display
Safety Devices
Acceleration/Braking time
Power
Dimension[WxDxH]
Weight
Certification
Advanced features

### DM1424

200-14000rpm, increment: 10rpm
18620×g
±20
2 type
30sec-99min/Continuous
Brushless DC motor
LCD
Door interlock, Overspeed detector; Over-temperature detector, Automatic internal diagnosis, Automatic rotor identification
30s ↑ 30s ↓
Single-phase, 200V-240V, 50Hz/60Hz, 5A; 100V-120V, 50Hz/60Hz, 5A 500W
280×364×266mm
10kg
CE cTÜVs FCC MCA IVD
Speed/RCF switch; Short-time run function; sound-alert function

# DM1424 series | Rotors and Adapters

## Available rotors



### A24- 2P

DM1424

Cat. No. 19400013

Max. speed: 14000rpm

Max. RCF: 18620xg

Rotor capacity: 2mL/1.5mLx24, 0.2mLx24, 0.5mLx24

Rotor material: High strength plastic

Available rotor adapters: A02P2,A05P2,A10P15 & Mat



### AC24

DM1424

Cat. No. 19400046

Max. speed: 12000rpm

Max. RCF: 13680xg

Rotor capacity: capillary tubes x24

Rotor material: High strength aluminum

## Available adapters



### A02P2

Cat. No. 19500001

2mL to 0.2mL rotor adapter, used with A12-2,  
A12-2P, AS24-2 and A24-2P rotors, 24pcs/pk



### A05P2

Cat. No. 19500002

2mL to 0.5mL rotor adapter, used with A12-2,  
A12-2P, AS24-2 and A24-2P rotors, 24pcs/pk



### A02P05

Cat. No. 19500003

Rotor adapter, used with A12-10P, 12pcs/pk

# Clinical Centrifuges

DLAB clinical centrifuges are widely used in the separation of serum, plasma, urea, blood samples and other routine applications in hospital and research laboratories.

## Conforms to international safety standards and regulations

- DLAB clinical centrifuges are marked with CE, cTUVus and FCC, and passed the explosion-proof test / MCA test according to IEC/EN61010-2-20
- Passed EN61010-2-101:2002 particular requirements for In-vitro diagnostic (IVD) medical equipment
- High strength plastic rotor gives excellent balance to guarantee stable operation
- Dual protection housing particularly advantageous for safe running
- Brushless DC motor precisely accelerates to the set speed



## Precise control

- Powerful CPU for easy operation of speed, time and all other parameters
- High accuracy of speed
- Digital timer adjustable from 30 sec. to 99 min or set for continuous run
- Gentle braking at low speeds with efficient separation



## Ergonomic design

- Easy operation thanks to intuitive menu and easy-to-read display
- RPM or G-force can be set and displayed
- Parameters can be modified after the set speed is reached
- Pressing and holding PULSE key for quick spin function
- Automatic lid-lock release
- Easy-to-read processing display and sound alert

DLAB DM0412 & DM0412S clinical centrifuges support small volumes applications . The centrifuges are supplied with an angle rotor that can hold up to 50mLx6, 15mLx6 (A6-50P ),15mLx8, or 10mL/7mL/5mLx12 (A12-10P ) vacuum tubes.

They are widely used in medical and veterinary practices for the centrifugation of blood and urine samples in qualitative analysis of water and soil samples. These centrifuges are also used in universities and other research institutes



### DM0412 Clinical Centrifuge

#### Features:

- Easy programming to achieve high accuracy of speed control
- Easy operation with intuitive menu and easy-to-read display
- Rotor speed can be set and displayed by RPM or G-force
- Maintenance-free brushless DC motors
- Quick spin function with press and hold pulse key
- Lid with electric lock and automatic release function saves processing time and prevents samples overheating
- Automatic self-diagnosis on startup showing accumulative running time and last running parameters
- Braking time 2 gears adjustable(for A6-50P rotor)
- A12-10P and A6-50P are not interchangeable



### DM0412S Economical Clinical Centrifuge

#### Features:

- speed range of 300-4500rpm
- Individual control of speed and time
- Faster acceleration and deceleration
- Perfectly suitable for 15mL cell culture tubes and a full line of collection tubes

## DM0412 series



CE FC

### Specifications

Speed Range	
Max. RCF	2490xg
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	Single-phase, 100V-240V,50Hz/60Hz, 3A 70W
Dimension[WxDxH]	301×354×217mm
Weight	6kg
Certification	CE, UL, IVD
Advanced features	Speed/RCF switch;Short-time run function; sound-alert function

### DM0412

300-4500rpm,  
increment: 100rpm

### DM0412S

300-4500rpm,  
increment:100rpm

2490xg
±20rpm
A12-10P, A6-50P
30sec-99min HOLD(Continuous operation)
Brushless DC motor
LCD
Door interlock,Overspeed detector; Automatic internal diagnosis
A12-10P: 20s ↑ 13s ↓ A6-50P: 20s ↑ 20 s /90 s ↓
Single-phase, 100V-240V,50Hz/60Hz, 3A 70W
301×354×217mm
6kg
CE, UL, IVD
Speed/RCF switch;Short-time run function; sound-alert function

Door interlock,Over-speed detection

23s ↑ 23s ↓

Single-phase,200V-240V,50Hz/60Hz,  
3A;100V-120V,50Hz/60Hz, 3A  
70W

301×354×217mm

6kg

sound-alert function



# DM0412 series | Rotors and Adapters

## Available rotors



### A12-10P

for DM0412 & DM0412S

Cat. No. 19200348

Max. speed: 4500rpm  
Max. RCF: 2490xg  
Rotor capacity: 8x15mL,12x10mL  
Rotor material: High strength plastic



### A6-50P

For DM0412(A6-50P)

Cat. No. 19100197

Max.speed: 4000rpm  
Max.RCF: 1800xg  
Rotor capacity: 50mlx6,15mlx6  
Rotor material: High strength plastic

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

Note: Made of plastic, A12-10P rotor cannot be autoclaved or applied with UV irradiation. Regular sterilization is recommended.



DLAB DM0636 Multi-Purpose Clinical Centrifuge is ideal for the centrifugation of samples in clinical chemistry, cytology, research laboratories, industrial laboratories, etc.

This centrifuge is suitable for tubes with caps, blood collection or urine tubes. Swing-out bucket rotors and adapters can be compatible with standard tubes up to 100mL at low speed.

## DM0636

### Multi-Purpose Clinical Centrifuge

#### Features

- Speed can be set from 300- 6000rpm
- Maximum capacity of the centrifuge: 100 mLx4
- 9 Acceleration/10 Brake speed settings to ensure optimal separation
- A wide range of accessories(fixed angle and swing-out bucket rotors)
- Automatic rotor identification
- Timers can be set up to 99 min. for short run/ continuous run
- 9 procedures stored in memory makes the operation much simplified
- Maintenance-free brushless DC motors



#### Specifications

#### DM0636

Speed range	300-6000rpm increment:10rpm
Max. RCF	4300xg
Speed accuracy	±20rpm
Max. Capacity	100mLx4
Run Time	30sec-99mins/continuous
Motor	Brushless DC
Display	LCD
Program Memory	9
Safety Devices	Door Imbalance protection Over speed & Over temperature detection
Acceleration/Deceleration time	9 ↑/10 ↓
Power	660W; Single-phase AC220V-240V, 50Hz/60Hz, 6.3A; AC110V-120V, 50Hz/60Hz, 10A
Dimension[WxDxH]	445x579x269mm
Weight	36kg
Certification	CE cTUVus FCC IVD
Advanced features	speed/rcf switch; Rotor identification

# DM0636 series | Rotors and Adapters



## Uncapping block

for S4-100 rotor



**SE4-100(Standard accessory)**

**Cat. No.** 19400041

**for DM0636 & DM0636R**

Max. speed: 4000rpm

Max. RCF: 2910xg

Rotor material: stainless steel body and adapter



19400045



19400044



19400043



19400042

bucket	x 4										
tube	x 36		x 16		x 8		x 4	x 4	x 4	x 8	x 20
Nominal volume	3-7mL	10mL	12mL	15mL	50mL	100mL	85mL	50mL	15mL	3-7mL	
Φ×L mm	13×75	13×100	16×100	17×105	17×120	29.5×100	38×108	38×104	29.5×100	17×120 13×100 13×75	13×100 13×75
tube											
adapter	with plug										
Package	36						4	4	8	4	
Tubes per rotor	36	36	16	16	16	8	4	4	8	20	
Radius(mm)	14	16.5	15.9	15.9	15.9	15.9	15.9	15.9	15.9	14.7	
Max RCF (g-force)	2500	2950	2840	2840	2840	2840	2840	2840	2700	2630	

# DM0636 series | Rotors and Adapters

## Available rotors



### AS12-PCR8

D0636

Cat. No. 19400036

Max. speed: 6000rpm  
Max. RCF: 4020xg  
Rotor capacity: PCR 8 trips×12  
Rotor material: aluminum  
Bio-safe(Biosealing): Yes



### AS30-2

D0636

Cat. No. 19400034

Max. speed: 6000rpm  
Max. RCF: 4020xg  
Rotor capacity: 2mL×30  
Rotor material: aluminum  
Bio-safe(Biosealing): Yes



### AS60-2

D0636

Cat. No. 19400037

Max. speed: 6000rpm  
Max. RCF: 4020xg  
Rotor capacity: 2mL×60  
Rotor material: aluminum  
Bio-safe(Biosealing): Yes



### S2-MP

D0636

Cat. No. 19400062

Max. speed: 4000rpm  
Max. RCF: 2200xg  
Rotor capacity: Micro-plates 384-PCR; 96-PCR  
Rotor material: stainless steel body and aluminum buckets

# DM0636 series | Rotors and Adapters

## Available rotors



### AS6-50V

DM0636

Cat. No. 19400038

Max. speed: 6000rpm  
Max. RCF: 41000×g  
Rotor capacity: 50mL×6  
Rotor material: aluminum  
Bio-safe(Biosealing): Yes



### AS18-5V

DM0636

Cat. No. 19400035

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



### A8-50

DM0636

Cat. No. 19400039

Max. speed: 5000rpm  
Max. RCF: 3910×g/3400×g  
Rotor capacity: 50mL×8 or 15mL×16  
Rotor material: aluminum body and stainless steel adapter



### A30-15

DM0636

Cat. No. 19400040

Max. speed: 4500rpm  
Max. RCF: 3260×g/2910×g  
Rotor capacity: 15mL×30  
Rotor material: aluminum body and stainless steel  
adapter Bio-safe(Biosealing): Yes

Capacity	3-7mL Blood collection tube	10mL Blood collection tube	12mL urine tube	15mL
Φ×L mm	13×100	16×100	17×105	17×120
Tubes Quantity	30	30	30	30

# Spectrophotometer

## Spectrophotometer

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

The spectrophotometer is an indispensable instrument routinely used in colleges, universities and research institutes for quantitative analysis in fields including biotechnology and quality control of new material developed. V-Series provides high resolution, high performance and excellent stability.



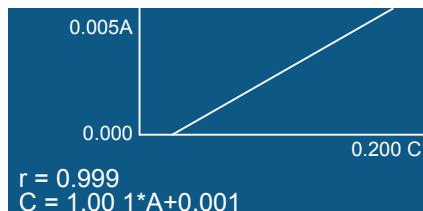
### Features

- User Friendly Operation and Information Rich LCD Display:** The large 128 x 64 dots, backlit LCD screen with adjustable brightness control displays a large array of data also in graphical format.
- On-Board Data Storage:** The System can save the test results, up to 200 groups of data and 200 standard curves in the RAM memory.
- Data can be restored after a sudden power failure.
- Auto setting wavelength:** To set wavelength automatically to calibrate the system through arrow keys to avoid operation errors.
- Automatic Switching:** Tungsten& Deuterium lamps switching is automatic. Selectable from a wavelength range of 190 to 1100nm.
- PC control through application software:** The spectrophotometer is fully equipped and capable of executing all functions in stand-alone mode. The optional application software 'Wave Professional' provides computer control for the spectrophotometer(through the built-in USB port), apart from other functions such as spectrum scan, Time scan(kinetics), multiwavelength scanning & Nucleic Acid /Protein measurement. (SP-V1100/SP-UV1100)
- Large sample compartment:** To accommodate 5–100mm path length cuvettes with optional holders. A variety of optional accessories are available.

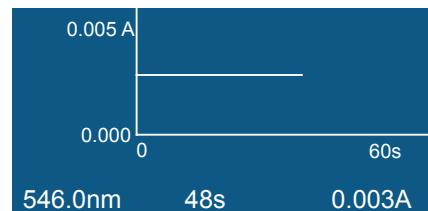
#### Basic Mode

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

#### Quantitative



#### Kinetics





<b>Model</b>	<b>SP-V1000</b>	<b>SP-UV1000</b>	<b>SP-V1100</b>	<b>SP-UV1100</b>
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 @ 220&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	110/220VAC, 50/60Hz, 80W	110/220VAC, 50/60Hz, 120W	110/220VAC, 50/60Hz, 80W	110/220VAC, 50/60Hz, 120W
Dimension(LxWxH)	490×360×210mm	490×360×210mm	490×360×210mm	490×360×210mm
Weight	10kg	12kg	10kg	12kg

# Spectrophotometer | Accessories



**Cat. No.** 18900337  
Micro Cell holder



**Cat. No.** 18900340  
8-position auto cell changer  
(for SP-V1100&SP-UV1100)



**Cat. No.** 18900331  
4-cell holder for 10mm squ.cuvette



**Cat. No.** 18900332  
4-cell holder for 10mm  
to 50mm squ. cuvette



**Cat. No.** 18900333  
4-cell holder for up to  
100mm squ.cuvette



**Cat. No.** 18900338  
Test tube holder(ø8-ø22mm)



**Cat. No.** 18900344  
cylindrical cell holder(ø16mm)



**Cat. No.** 18900339  
solid sample holder  
(ø1.5-3mm) 1 position



**Cat. No.** 18900335  
10mm water-jacketed 1 cell holder  
(for SP-V1100 & SP-UV1100)



**Cat. No.** 18900336  
10mm water-jacketed 4-cell holder  
(for SP-V1100 & SP-UV1100)



Square cuvettes glass/quartz  
1-5mm/10-100mm



**Cat. No.** 18900341  
12V20W halogen lamp



**Cat. No.** 18900342  
Milas deuterium lamp, 10V, 300mA, 30W  
(for SP-UV1000&SP-UV1100)



## **DLAB Scientific Inc.**

Add: 775 Rivera St, Riverside, CA 92501, USA

Tel: +1- 747- 230-5179

Fax: +1-909-230-5275

E-mail: [info@dlabsci.com](mailto:info@dlabsci.com)

Service contact: [service@dlabsci.com](mailto:service@dlabsci.com)

web: [www.dlabsci.com](http://www.dlabsci.com)