

## OUR VISION AND MISSION

With the vision “To become a Leading Manufacturer of General Lab Equipment” and the Mission “Excellence in Manufacturing to Serve Science”, DLAB Scientific is an established high value laboratory equipment supplier dedicated to developing and manufacturing innovative and reliable application tools with unmatched performance to enhance customer operation success and value.

All DLAB instruments are designed and manufactured in accordance with ISO9001/13485. Our goal is to be one-stop supplier of a wide range of general laboratory devices & instruments covering chemical, biological, environmental, forensic, food and clinical diagnostic applications. Our technical experts with dedicated R&D team ensure to offer the most effective and time saving solutions. Our products provide comfort, accuracy and convenience to conduct safe and efficient experiments during research. We are experienced in developing and providing customized products suitable for end user applications. We are partners with many prestigious companies and institutions throughout the world.

## OUR ACCOMPLISHMENTS

Since its inception in 2002, DLAB Scientific (formerly known as Dragon Laboratory) has been a leading supplier of high quality laboratory equipment. DLAB Scientific has its corporate offices in China and also established subsidiaries in United States, Europe and India to enhance its business operations along with the expansion of its warehouse distribution. Our corporate facility is designed with International operation standards in about 21,000m<sup>2</sup> total area.

Over the years, the company has improved its product development, manufacturing and product portfolio utilizing state of the art technology solutions. We have developed and produced over 150 products that are being deployed in various environments from small to very large enterprises. We have developed a very strong network of over 500 distribution partners all over the world providing an impressive reach and accessibility to our end users.

Our brands including: DLAB, DRAGONLAB, DRAGONMED, DRAGON etc.

## OUR HISTORY

DLAB Scientific Co., Ltd has its headquarters in Beijing, the capital city of China. It is one of the leading manufacturers of high quality laboratory equipments. With growing international presence and customer service requirements, the company established its subsidiary operations in United States, Europe and India and changed its name to DLAB Scientific in 2016. Our products offer unparalleled performance and value. All DLAB products are designed and manufactured in accordance with ISO9001/13485.

We are positioned to be an one-stop supplier of a wide range of general laboratory devices & instruments, covering chemical, biological, and clinical diagnostic labs.

Our dedicated and experienced R&D team and sourcing capability enable DLAB to provide you with the most cost-effective and time bound solutions. Through our enabling products, we bring high performance, great reliability, high accuracy and unbeatable value.



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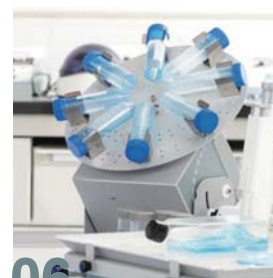
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DLAB products are manufactured in accordance with ISO9001 and ISO13485. All products comply with EU and North America standards, CE, cTÜVus, FCC marked and subjected to the strict QC control.

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

DLAB liquid handling range includes micropipettes(electronic pipettes & mechanical pipettes), pipette filler, pipette controller and stepper.

#### List of DLAB models:

| Series             | Image                                                                               | Model           | Application                                           | Operation Method | Volume Range | Channel Option                      | Autoclavable                   | Page |
|--------------------|-------------------------------------------------------------------------------------|-----------------|-------------------------------------------------------|------------------|--------------|-------------------------------------|--------------------------------|------|
| Mechanical Pipette |    | HiPette         | Aqueous solution                                      | Manual           | 0.1–10000µL  | Single channel                      | YES                            | p.5  |
|                    |    | MicroPette      | Aqueous solution                                      | Manual           | 0.1–10000µL  | Single Channel Adj. & Fixed;        | YES ( lower part )             | p.7  |
|                    |                                                                                     |                 |                                                       |                  | 0.5–300µL    | 8 Channel Adj.;<br>12 Channel Adj.; |                                |      |
|                    |    | MicroPette Plus | Aqueous solution                                      | Manual           | 0.1–5000µL   | Single Channel Adj. & Fixed;        | YES                            | p.7  |
|                    |                                                                                     |                 |                                                       |                  | 0.5–300µL    | 8 Channel Adj.;<br>12 Channel Adj.; |                                |      |
|                    |   | MiniPette       | Aqueous solution                                      | Manual           | 25–200µL     | Single Channel Fixed                | NO                             | p.18 |
| Electronic Pipette |  | dPette+         | Aqueous solution                                      | Electronic       | 0.5–1000µL   | Single Channel Adj.                 | YES ( lower part )             | p.11 |
|                    |                                                                                     |                 |                                                       |                  | 0.5–300µL    | 8 Channel Adj.                      |                                |      |
|                    |  | dPette          | Aqueous solution                                      | Electronic       | 0.5–1000µL   | Single Channel Adj.                 | YES ( lower part )             | p.13 |
| Pipette Filler     |  | Levo Plus       | Aqueous solution                                      | Electronic       | 0.1–100mL    | Single channel                      | YES ( silicon adapter&nozzle ) | p.15 |
|                    |  | Levo Me         | Aqueous solution                                      | Electronic       | 0.1–100mL    | Single channel                      | YES ( silicon adapter&nozzle ) | p.17 |
| Pipette Controller |  | Levo            | Aqueous solution                                      | Manual           | 0.1–100mL    | Single channel                      | YES ( silicon adapter&nozzle ) | p.18 |
| Pipette Pump       |  | Levo E          | Aqueous solution                                      | Manual           | 2–25mL       | Single channel                      | NO                             | p.18 |
| Stepper            |  | StepMate        | Aqueous solution, high viscosity or volatile solution | Manual           | 0.5–50mL     | Single channel                      | NO                             | p.19 |

In addition to pipettes, liquid handling series products also include various dispensers, electronic burette and vacuum aspiration system, which are used for the pipetting, dispensing, and collection of reagents with a wider range.

**List of DLAB models:**



| Product Name              | Bottle-Top Dispenser                        | New Bottle-Top Dispenser                                | Electronic Bottle-Top Dispenser | Electronic Burette                                                                       | Vacuum Aspiration System                                                                         | Economical Vacuum Aspirator                                 |
|---------------------------|---------------------------------------------|---------------------------------------------------------|---------------------------------|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| Model                     | DispensMate                                 | DispensMate-Pro                                         | dFlow                           | dTrite                                                                                   | SafeVac                                                                                          | EcoVac                                                      |
| Application               | Reagent pipetting and liquid dispensing     |                                                         |                                 | Used in titration operations in chemical analysis, food industry, environmental analysis | Liquid collection and storage treatment, including cell culture medium, suspension, supernatant. |                                                             |
| Operation                 | Manual                                      | Manual                                                  | Electronic                      | Electronic                                                                               | Electronic                                                                                       | Electronic                                                  |
| Volume Range              | 0.5–5mL<br>1.0–10mL<br>2.5–25mL<br>5.0–50mL | 0.5–5mL<br>1.0–10mL<br>2.5–25mL<br>5.0–50mL<br>10–100mL | 0.1–99.9mL                      | 0.01–99.99mL                                                                             | Vacuum range:<br>0–600mbar<br>Bottle volume:4L                                                   | Vacuum range:<br>0–500mbar<br>Bottle volume:2L              |
| Reagent Recovery Function | NO                                          | Yes                                                     | Yes                             | Yes                                                                                      | NO                                                                                               | NO                                                          |
| Features                  | –                                           | –Pro Glass piston (Part volume)                         | –                               | –                                                                                        | Sensitive level sensor, Self-closing connector                                                   | 1L bottle optional, Switch manual and continuous aspiration |
| Fully autoclavable        | The part where the liquid flows             | Whole                                                   | –                               | –                                                                                        | The part where the liquid flows                                                                  | The part where the liquid flows                             |
| Accessories               | Screw adapter                               | Screw adapter                                           | Spiral dispensing pipe          | Spiral dispensing pipe                                                                   | Handle adapter                                                                                   | Handle adapter                                              |
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# HiPette

## Fully Autoclavable Mechanical Pipette

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

NEW

### Ultra-light ergonomic design

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



### Accurate pipetting

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



### Complete sterilization

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

Smooth, Low Force, Effortless Button

Smooth Knob Adjustment  
Light and smooth  
volume adjustment

Pull up the  
lock wheel to  
set the volume

One Key Volume Lock Setting

Push down the  
lock wheel to  
lock the volume

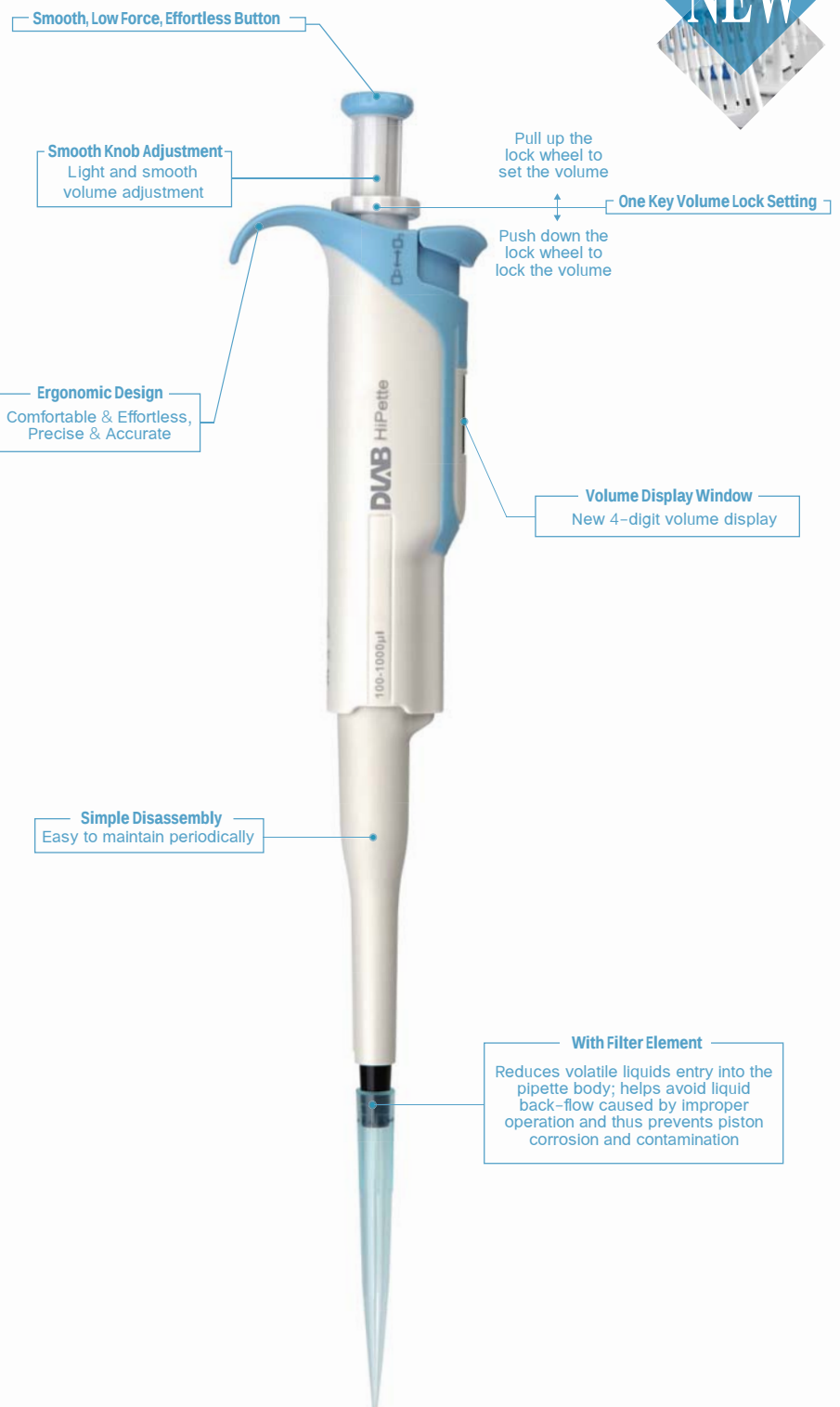
Ergonomic Design  
Comfortable & Effortless,  
Precise & Accurate

Volume Display Window  
New 4-digit volume display

Simple Disassembly  
Easy to maintain periodically

With Filter Element

Reduces volatile liquids entry into the  
pipette body; helps avoid liquid  
back-flow caused by improper  
operation and thus prevents piston  
corrosion and contamination



## Specifications

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

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

\*\* **Coming soon**

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

## MicroPette Plus Features

**121°C**  
**FULLY**  
**Autoclavable**

- Available as Fixed Volume and Variable Volume formats
- Streamlined shape design
- Comprehensive volume range from 0.1µL to 5mL
- Easy calibration and maintenance
- 8 and 12 channel pipette options
- Dispensing head rotates for effortless pipetting convenience
- Individual piston and tip cone assembly
- Spring loaded tip cones for easy cleaning and maintenance
- Compound material-made tip cone secures high sealing performance



## MicroPette Features

**121°C**  
**Half**  
**Autoclavable**

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

# Common Features

- Central, large pipetting button for smooth movement of the piston
- Smooth knob adjustment for light and smooth range adjustment
- Easy volume adjustment for left- and right-handers
- Large, ergonomic ejection button for rapid replacement of the tips
- Ergonomic finger rest that allows comfortable handling
- Precise, digital volume display
- Lightweight but still robust for easy tip selection
- Compatible with most universal tip brands
- Fully autoclavable at 121 °C with use of best in class innovative materials
- Corrosion-resistant piston & ejector complying to European standard
- Online calibration available
- Individual calibration certificate provided according to ISO8655

# Applications

- Best suited for clinical diagnostics and control analysis labs.
- Best suited for molecular biology, microbiology, immunology, cell culture, analytical chemistry, biochemistry and genetic labs.
- Best suited for ELISA & CLIA diagnostics test, molecular screening, kinetic studies, DNA application etc.

# 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 |            |
| $\mu\text{L}$                             | $\mu\text{L}$ | $\mu\text{L}$ | $\mu\text{L}$                             | %           | $\mu\text{L}$   | %          |
| 0.1–2.5                                   | 0.05          | 2.5           | $\pm 0.0625$                              | $\pm 2.50$  | $\pm 0.05$      | $\pm 2.00$ |
|                                           |               | 1.25          | $\pm 0.0375$                              | $\pm 3.00$  | $\pm 0.0375$    | $\pm 3.00$ |
|                                           |               | 0.25          | $\pm 0.03$                                | $\pm 12.00$ | $\pm 0.015$     | $\pm 6.00$ |
| 0.5–10                                    | 0.1           | 10            | $\pm 0.1$                                 | $\pm 1.00$  | $\pm 0.08$      | $\pm 0.80$ |
|                                           |               | 5             | $\pm 0.075$                               | $\pm 1.50$  | $\pm 0.075$     | $\pm 1.50$ |
|                                           |               | 1             | $\pm 0.025$                               | $\pm 2.50$  | $\pm 0.015$     | $\pm 1.50$ |
| 2–20                                      | 0.5           | 20            | $\pm 0.18$                                | $\pm 0.09$  | $\pm 0.08$      | $\pm 0.04$ |
|                                           |               | 10            | $\pm 0.12$                                | $\pm 1.20$  | $\pm 0.1$       | $\pm 1.00$ |
|                                           |               | 2             | $\pm 0.06$                                | $\pm 3.00$  | $\pm 0.04$      | $\pm 2.00$ |
| 5–50                                      | 0.5           | 50            | $\pm 0.3$                                 | $\pm 0.60$  | $\pm 0.15$      | $\pm 0.30$ |
|                                           |               | 25            | $\pm 0.225$                               | $\pm 0.90$  | $\pm 0.15$      | $\pm 0.60$ |
|                                           |               | 5             | $\pm 0.1$                                 | $\pm 2.00$  | $\pm 0.1$       | $\pm 2.00$ |
| 10–100                                    | 1             | 100           | $\pm 0.8$                                 | $\pm 0.80$  | $\pm 0.15$      | $\pm 0.15$ |
|                                           |               | 50            | $\pm 0.5$                                 | $\pm 1.00$  | $\pm 0.2$       | $\pm 0.40$ |
|                                           |               | 10            | $\pm 0.3$                                 | $\pm 3.00$  | $\pm 0.15$      | $\pm 1.50$ |
| 20–200                                    | 1             | 200           | $\pm 1.2$                                 | $\pm 0.60$  | $\pm 0.3$       | $\pm 0.15$ |
|                                           |               | 100           | $\pm 0.8$                                 | $\pm 0.80$  | $\pm 0.3$       | $\pm 0.30$ |
|                                           |               | 20            | $\pm 0.6$                                 | $\pm 3.00$  | $\pm 0.2$       | $\pm 1.00$ |
| 50–200                                    | 1             | 200           | $\pm 1.2$                                 | $\pm 0.60$  | $\pm 0.3$       | $\pm 0.15$ |
|                                           |               | 100           | $\pm 0.8$                                 | $\pm 0.80$  | $\pm 0.3$       | $\pm 0.30$ |
|                                           |               | 50            | $\pm 0.5$                                 | $\pm 1.00$  | $\pm 0.2$       | $\pm 0.40$ |
| 100–1000                                  | 5             | 1000          | $\pm 6$                                   | $\pm 0.60$  | $\pm 2$         | $\pm 0.20$ |
|                                           |               | 500           | $\pm 3.5$                                 | $\pm 0.70$  | $\pm 1.25$      | $\pm 0.25$ |
|                                           |               | 100           | $\pm 2$                                   | $\pm 2.00$  | $\pm 0.7$       | $\pm 0.70$ |
| 200–1000                                  | 5             | 1000          | $\pm 6$                                   | $\pm 0.60$  | $\pm 2$         | $\pm 0.20$ |
|                                           |               | 500           | $\pm 3.5$                                 | $\pm 0.70$  | $\pm 1.25$      | $\pm 0.25$ |
|                                           |               | 200           | $\pm 1.8$                                 | $\pm 0.90$  | $\pm 0.6$       | $\pm 0.30$ |
| 1000–5000                                 | 50            | 5000          | $\pm 25$                                  | $\pm 0.50$  | $\pm 7.5$       | $\pm 0.15$ |
|                                           |               | 2500          | $\pm 15$                                  | $\pm 0.60$  | $\pm 7.5$       | $\pm 0.30$ |
|                                           |               | 1000          | $\pm 7$                                   | $\pm 0.70$  | $\pm 3$         | $\pm 0.30$ |
| 2000–10000                                | 100           | 10000         | $\pm 60$                                  | $\pm 0.60$  | $\pm 20$        | $\pm 0.20$ |
|                                           |               | 5000          | $\pm 60$                                  | $\pm 1.20$  | $\pm 15$        | $\pm 0.30$ |
|                                           |               | 2000          | $\pm 60$                                  | $\pm 3.00$  | $\pm 12$        | $\pm 0.60$ |

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

| Fixed Volume Pipettes |           |               |                |           |                 |            |
|-----------------------|-----------|---------------|----------------|-----------|-----------------|------------|
| Volume Range          | Increment | Test Volume   | Accuracy error |           | Precision error |            |
| $\mu\text{L}$         | –         | $\mu\text{L}$ | $\mu\text{L}$  | %         | $\mu\text{L}$   | %          |
| 5                     | –         | 5             | $\pm 0.065$    | $\pm 1.3$ | $\pm 0.06$      | $\pm 1.2$  |
| 10                    | –         | 10            | $\pm 0.08$     | $\pm 0.8$ | $\pm 0.08$      | $\pm 0.8$  |
| 20                    | –         | 20            | $\pm 0.12$     | $\pm 0.6$ | $\pm 0.1$       | $\pm 0.5$  |
| 25                    | –         | 25            | $\pm 0.125$    | $\pm 0.5$ | $\pm 0.075$     | $\pm 0.3$  |
| 50                    | –         | 50            | $\pm 0.25$     | $\pm 0.5$ | $\pm 0.15$      | $\pm 0.3$  |
| 100                   | –         | 100           | $\pm 0.5$      | $\pm 0.5$ | $\pm 0.3$       | $\pm 0.3$  |
| 200                   | –         | 200           | $\pm 0.8$      | $\pm 0.4$ | $\pm 0.4$       | $\pm 0.2$  |
| 250                   | –         | 250           | $\pm 1.0$      | $\pm 0.4$ | $\pm 0.5$       | $\pm 0.2$  |
| 500                   | –         | 500           | $\pm 1.5$      | $\pm 0.3$ | $\pm 1.0$       | $\pm 0.2$  |
| 1000                  | –         | 1000          | $\pm 3.0$      | $\pm 0.3$ | $\pm 2.0$       | $\pm 0.2$  |
| 2000                  | –         | 2000          | $\pm 6.0$      | $\pm 0.3$ | $\pm 3.0$       | $\pm 0.15$ |
| 5000                  | –         | 5000          | $\pm 15$       | $\pm 0.3$ | $\pm 7.5$       | $\pm 0.15$ |

| 8-channel Adjustable Volume Pipettes |               |               |                |            |                 |            |
|--------------------------------------|---------------|---------------|----------------|------------|-----------------|------------|
| Volume Range                         | Increment     | Test Volume   | Accuracy error |            | Precision error |            |
| $\mu\text{L}$                        | $\mu\text{L}$ | $\mu\text{L}$ | $\mu\text{L}$  | %          | $\mu\text{L}$   | %          |
| 0.5–10                               | 0.1           | 10            | $\pm 0.15$     | $\pm 1.50$ | $\pm 0.15$      | $\pm 1.50$ |
|                                      |               | 5             | $\pm 0.125$    | $\pm 2.50$ | $\pm 0.125$     | $\pm 2.50$ |
|                                      |               | 1             | $\pm 0.04$     | $\pm 4.00$ | $\pm 0.04$      | $\pm 4.00$ |
| 5–50                                 | 0.5           | 50            | $\pm 0.5$      | $\pm 1.00$ | $\pm 0.25$      | $\pm 0.50$ |
|                                      |               | 25            | $\pm 0.375$    | $\pm 1.50$ | $\pm 0.25$      | $\pm 1.00$ |
|                                      |               | 5             | $\pm 0.15$     | $\pm 3.00$ | $\pm 0.1$       | $\pm 2.00$ |
| 50–300                               | 5             | 300           | $\pm 2.1$      | $\pm 0.70$ | $\pm 0.75$      | $\pm 0.25$ |
|                                      |               | 150           | $\pm 1.5$      | $\pm 1.00$ | $\pm 0.75$      | $\pm 0.50$ |
|                                      |               | 50            | $\pm 0.75$     | $\pm 1.50$ | $\pm 0.4$       | $\pm 0.80$ |

| 12-channel Adjustable Volume Pipettes |               |               |                |            |                 |            |
|---------------------------------------|---------------|---------------|----------------|------------|-----------------|------------|
| Volume Range                          | Increment     | Test Volume   | Accuracy error |            | Precision error |            |
| $\mu\text{L}$                         | $\mu\text{L}$ | $\mu\text{L}$ | $\mu\text{L}$  | %          | $\mu\text{L}$   | %          |
| 0.5–10                                | 0.1           | 10            | $\pm 0.15$     | $\pm 1.50$ | $\pm 0.15$      | $\pm 1.50$ |
|                                       |               | 5             | $\pm 0.125$    | $\pm 2.50$ | $\pm 0.125$     | $\pm 2.50$ |
|                                       |               | 1             | $\pm 0.04$     | $\pm 4.00$ | $\pm 0.04$      | $\pm 4.00$ |
| 5–50                                  | 0.5           | 50            | $\pm 0.5$      | $\pm 1.00$ | $\pm 0.25$      | $\pm 0.50$ |
|                                       |               | 25            | $\pm 0.375$    | $\pm 1.50$ | $\pm 0.25$      | $\pm 1.00$ |
|                                       |               | 5             | $\pm 0.15$     | $\pm 3.00$ | $\pm 0.1$       | $\pm 2.00$ |
| 50–300                                | 5             | 300           | $\pm 2.1$      | $\pm 0.70$ | $\pm 0.75$      | $\pm 0.25$ |
|                                       |               | 150           | $\pm 1.5$      | $\pm 1.00$ | $\pm 0.75$      | $\pm 0.50$ |
|                                       |               | 50            | $\pm 0.75$     | $\pm 1.50$ | $\pm 0.4$       | $\pm 0.80$ |

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

# dPette+

## Multi-functional 8-channel Electronic Pipette

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



### • Easy Operation

Intuitive interface for setting functions and parameters.

### • Ergonomic Design

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

### • Convenient and Versatile

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

### • Dual charging modes

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

### Three easy steps to operate dPette+

1

Long press the Parameter Knob for 2 seconds to Start

2

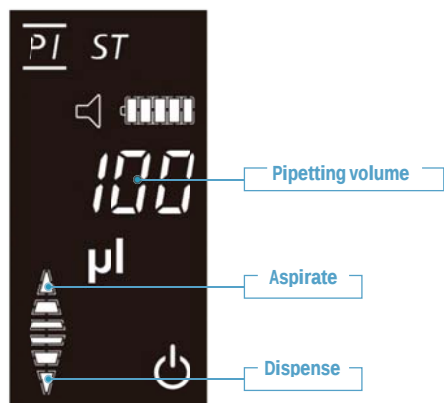
Quickly turn the Function Wheel to Activate, Rotate to Switch Pipetting, Continuous Dispensing, and other Function Settings

3

After quickly turning the Parameter Knob to Unlock, Turn to Adjust the Volume, Press to Pipette, Long press to Mix

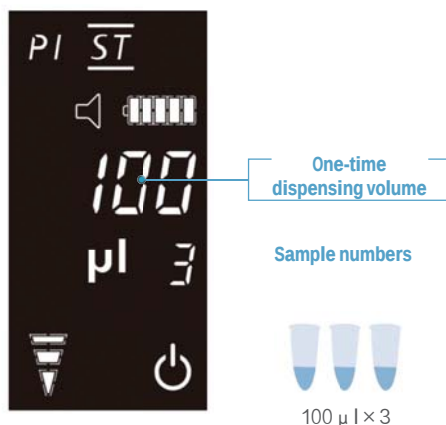
## Pipetting function

Parameter Knob press → Pipetting,  
Long press → Mixing



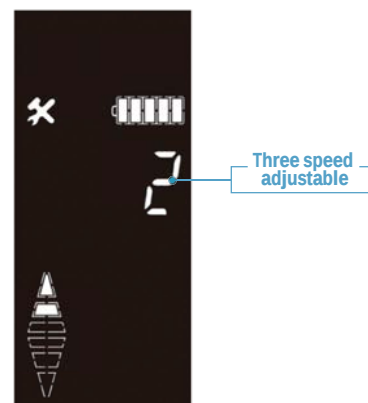
## Dispensing function

Dispensing times = Pipette max volume /  
Single sample volume



## Other function

Pipetting speed adjustment  
Key tone adjustment



## Complimentary Pipette Holder

Supports dual charging mode



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

## USB Charging



## Contact Charging



# Specifications

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

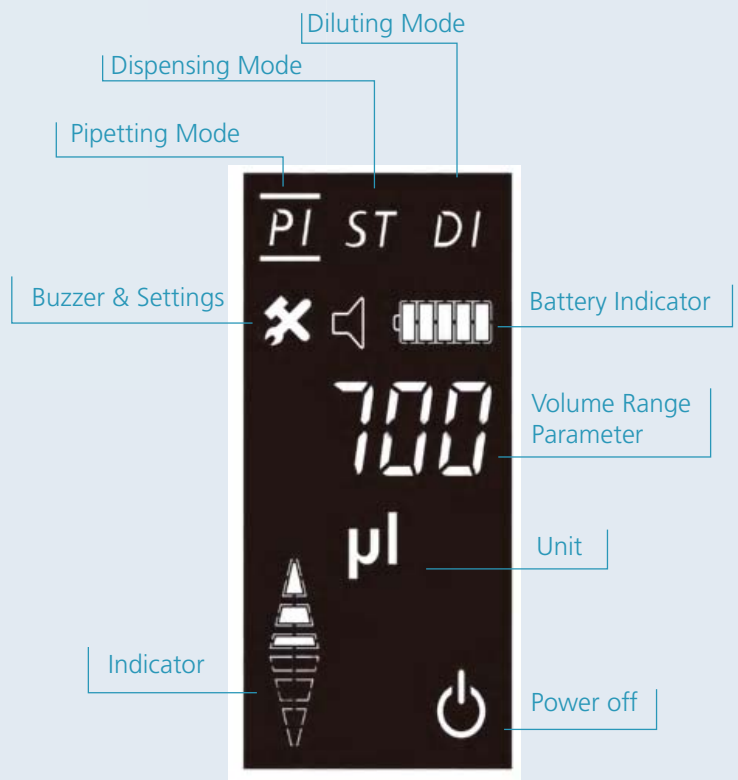
\* SD=Standard Deviation \* CV=Co-efficient of Variation

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

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



# ELECTRONIC PIPETTE



dPette+

Multi functional Electronic Pipette

dPette

Simple Electronic Pipette

Features

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



Specifications

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

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

# Levo Plus

## Pipette Filler

Ergonomic fast pipetting solution with accurate speed control



## Features

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



Select pipetting speed by pressing +/- button

Large LCD display for low battery warning and speed settings

Aspiration button

Operating button for motor and gravity dispensing

Hydrophobic filter 0.45µm

Silicone adapter for 1.0–100mL pipette tip, fully autoclavable



## Specifications

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



# Levo ME

## Pipette Filler

Elegant design & reliable performance,  
with long-life battery

## Features

- Enables single-handed operation with minimum effort
- Speed adjustment simply with finger tips
- Individually set aspiration (upper button) and dispense (lower button) speeds
- Compatible with glass or plastic serological pipettes(0.1–100mL)
- 0.45µm replaceable hydrophobic filter
- 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<br>of Intermittence Use                 |
| Charging Time        | 2–3 Hours                                                 |
| Pipette Types        | Glass or Plastic Pipette (0.1–100mL),<br>Pasteur Pipettes |
| Filter               | 0.45µm Hydrophobic                                        |
| Weight               | 200g                                                      |

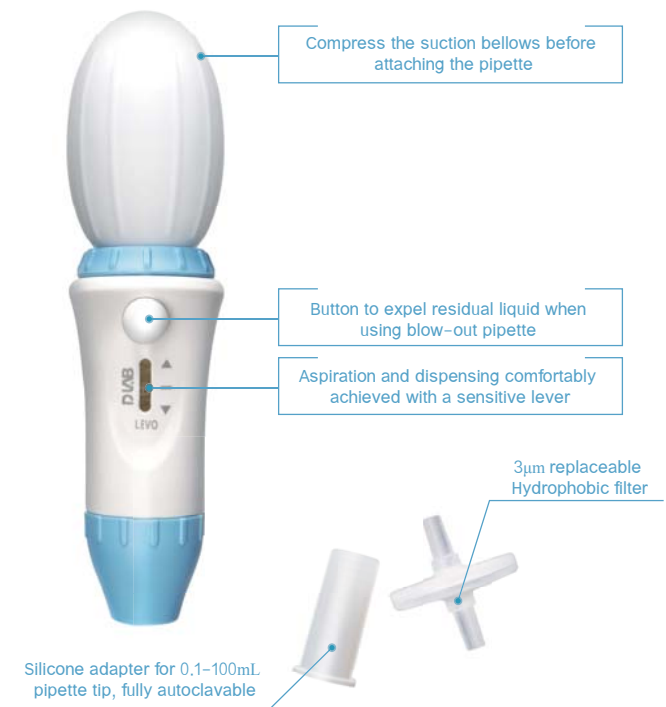


# Levo

## Pipette Controller

### Features

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



# Mini Pipette

## Features

- Ergonomic design provides excellent operation experience;
- Smart body, ideal to combine with IVD reagents;
- Compatible with universal 200µL tips;

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

# Levo E

## Pipette Pump

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



### Features

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

# StepMate Stepper

Positive-displacement, continuously adjustable, repetitive dispenser



## Features

- Slim, light and robust
- wide dispensing from 10µL to 5mL
- Up to 48 dispensing steps in succession
- Equipped with durable tip insertion lever
- With dispensing tips volume sizes from 0.5mL to 50mL

## Applications

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

### How to select dispensing volume

Find the required dispensing volume in the table.

Use the volume selection dial to set the required volume.

Select, and insert a dispensing tip.

Follow the maximum dispensing steps as stated.

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

Dispensing tips are made from high quality materials without soft lubricants or other additives.

## Specifications

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



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

# dTrite

## Electronic Burette

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

## Features

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



## Specifications

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

# dFlow

## Electronic Bottle-Top Dispenser

Error-free, easy to use, motorized solution

## Features

- Motor controlled digital ,fatigue free operation
- High quality stepper motor provides smooth and accurate dispensing
- Adjustable aspirations and dispensing speed
- Recirculation feature minimizes waste
- TFT display module for simple volume selection and control
- Two operation modes:continuous dispensing  
Stepper Function

## Applications

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



## Specifications

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



# DispensMate-Pro

## Premium Bottle-Top Dispenser

Designed Safe, Sturdy & Stable dispensing directly from the bottle in the range of volumes up to 100 mL

- ① Fast, precise, and reproducible volume locking mechanism on a clear scale
- ② Reagent recovery function reduces reagent waste and prevents dripping when not in use
- ③ 6 adapters to comfortably fit most laboratory reagent bottles
- ④ Adjustable aspirating tube for different bottle heights

## Features

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

## Specifications

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

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



# DispensMate

## Bottle-Top Dispenser

For safer and more efficient way to handle chemicals

## Features

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

## Applications

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

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

## Specifications

| Cat. No.   | Volume Range | Graduation | Accuracy error |       | Precision error |       |
|------------|--------------|------------|----------------|-------|-----------------|-------|
|            | mL           | mL         | μL             | %     | μL              | %     |
| 7032100101 | 0.5–5        | 0.1        | ± 25           | ± 0.5 | ± 10            | ± 0.2 |
| 7032100102 | 1.0–10       | 0.2        | ± 50           | ± 0.5 | ± 20            | ± 0.2 |
| 7032100103 | 2.5–25       | 0.5        | ± 125          | ± 0.5 | ± 50            | ± 0.2 |
| 7032100104 | 5.0–50       | 1.0        | ± 250          | ± 0.5 | ± 100           | ± 0.2 |



| Cat. No.         | 17400131              | 17400132              | 17400133              | 17400134              | 17400135              | 17400037                   | 17900158           | 17000802             |
|------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------------|--------------------|----------------------|
| Descriptions-Pro | GL32,Adapter, 45/32mm | GL38,Adapter, 45/38mm | GL25,Adapter, 32/25mm | GL28,Adapter, 32/28mm | S40, Adapter, 45/40mm | Reagent Bottle (Brown, 1L) | Filling tube ( m ) | Discharge tube ( m ) |

# SafeVac

## Vacuum-Controlled Aspiration System

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

### Features

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

### Applications

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

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

Stand for transferring the bottle securely and holding the hand operator

vacuum level indicator light

Sensitive level sensor to prevent liquid overflow

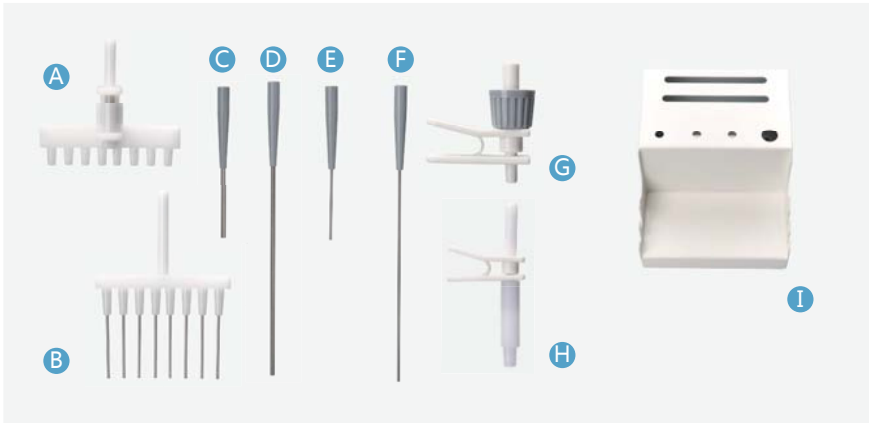


# Specifications

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

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

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



# EcoVac

## Economical Vacuum Aspirator

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

Easy to switch between manual aspiration and continuous aspiration: two levels adjustable.  
Level 1: Continuous aspiration mode.  
Level 2: Continuous liquid aspiration rate increased by 30%.

## Features

- Small and compact to fit in cabinet, bench-top and even below the work station
- Easy to switch between manual aspiration and continuous aspiration mode, reducing hand fatigue and improving efficiency
- Collection bottle outlet with hydrophobic filter prevents aerosol and liquid contamination
- Brushless motor offers low noise and long life
- Different adapters are available to fit a multitude of laboratory supplies
- The parts in contact with liquids can be autoclaved
- adjustable vacuum level with indicator light is designed for various applications

## Specifications

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



Hanging handles  
on both sides

vacuum level indicator light

## Wide range of applications

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

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



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





# Thermal Control

## Digital Dry Bath

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

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

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

#### List of DLAB models:

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

# DLAB Dry Bath Series

Small footprint. Rapid & accurate temperature control. Overheating protection.  
Accommodates various types of tube holders to meet every lab need.  
HB105-S1 / HB105-S2 / HB150-S1 / HB150-S2 / HB120-S / HB60-S / H100-Pro /



HB105-S1



HB105-S2



HB150-S1



HB150-S2



HB120-S



HB60-S



MiniHCL100



H100-Pro

## Features

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



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

**Durable, reliable safe and convenient to use**

## Features

- Single and double heat block modules available
- Highest temperature up to 150 °C
- Buzzer function allows accurately monitor the heating time
- External temperature sensor PT1000,
- Historical data tracing via USB interface



## HB120-S / HB60-S

**Easy to use, safe and durable**

## Features

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

## H100-Pro

Digitally accurate with exceptional temperature uniformity



## Features

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

## Applications

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



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



# Mini Dry Bath

## Mini HCL100 / Mini HC100 / Mini H100

Portable and option to power by automobile power adapter

## Features

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



## Applications

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

| Specifications                              | Mini HCL100             | Mini HC100              | Mini H100               |
|---------------------------------------------|-------------------------|-------------------------|-------------------------|
| Display                                     | LCD                     | LCD                     | LCD                     |
| Temperature setting range[°C]               | 0-100                   | 0-100                   | 25-100                  |
| Temperature range [°C]                      | Room temperature-23~100 | Room temperature-23~100 | Room temperature+5~100  |
| Temperature control accuracy[°C]            | ± 0.5                   | ± 0.5                   | ± 0.5                   |
| Temperature display accuracy[°C]            | 0.1                     | 0.1                     | 0.1                     |
| Minimum time taken for heating(25°C+100°C ) | ≤20min                  | ≤20min                  | ≤20min                  |
| Minimum time for cooling(20°C-0°C )         | ≤25min                  | ≤25min                  | -                       |
| Max. Heating Rate                           | 8°C/min                 | 8°C/min                 | 6.5°C/min               |
| Max. Cooling Rate                           | 3°C/min                 | 3°C/min                 | -                       |
| Time setting range                          | 0-999min/0-999sec       | 0-999min/0-999sec       | 0-999min/0-999sec       |
| No of programs                              | 9(2steps for each )     | 9(2steps for each )     | 9(2steps for each )     |
| Temperature self-calibration                | Support                 | Support                 | Support                 |
| USB interface                               | Support                 | Support                 | Support                 |
| Error code reminder                         | Support                 | Support                 | Support                 |
| External dimension[WxDxH]                   | 110x162x140mm           | 110x162x140mm           | 110x162x140mm           |
| Overall weight [kg]                         | ≤1                      | ≤1                      | ≤1                      |
| Power supply                                | DC12V,100-240V, 50/60Hz | DC12V,100-240V, 50/60Hz | DC12V,100-240V, 50/60Hz |
| Power [w]                                   | 60                      | 60                      | 60                      |
| Operating temperature[°C]                   | +10-40                  | +10-40                  | +10-40                  |
| Operating humidity [% RH]                   | ≤80                     | ≤80                     | ≤80                     |

# Thermo Mix HCM100-Pro / HM100-Pro

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

DLAB HCM100-Pro-Heating/Cooling/Mixing

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



## Features

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

## Applications

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

# Thermo control HC110-Pro

heating and cooling with digital display



## Features

- Compact, programmable and overheating protection for safe sample handling
- Precise temperature control for heating and cooling  $-5^{\circ}\text{C}$  to  $110^{\circ}\text{C}$  for all major lab applications
- Interchangeable sample blocks available Applications
- Most common application if for Reagent warming/cooling, DNA extractions, enzymatic reactions and reactions that need to processed at or near room temperature.

## As low as $-5^{\circ}\text{C}$

Precise temperature control for heating and cooling  $-5^{\circ}\text{C}$ – $110^{\circ}\text{C}$ .

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

## Blocks

### H100-Pro

| Cat.No      | 18900401                                                                          | 18900402                                                                          | 18900403                                                                          | 18900404                                                                          | 18900405                                                                          | 18900406                                                                            | 18900407                                                                            | 18900420                                                                            | 18900423                                                                            |
|-------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Block types |  |  |  |  |  |  |  |  |  |
| Capacity    | 0.5mL × 24                                                                        | 1.5mL × 24                                                                        | 2mL × 24                                                                          | 5mL × 8<br>round bottom                                                           | 5mL × 8<br>cone bottom                                                            | 15mL × 8                                                                            | 50mL × 4                                                                            | 96 or 384<br>well plate                                                             | microplate                                                                          |

### HB120-S

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

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

| Capacity       | Cat. No. 18900520                                                                   |
|----------------|-------------------------------------------------------------------------------------|
| Aluminum beads |  |

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

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

### Mini HCL100/Mini HC100/Mini H100

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

# DWB20-S

## Laboratory Water Bath

## Features

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

## Applications

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



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

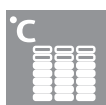
# TC1000-G Thermal Cycler Gradient

# TC1000-S Thermal Cycler Standard

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

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

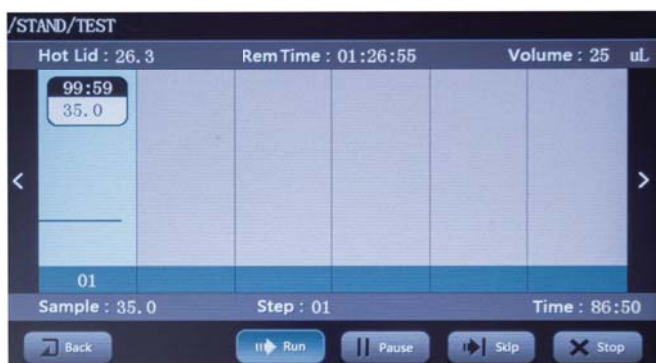
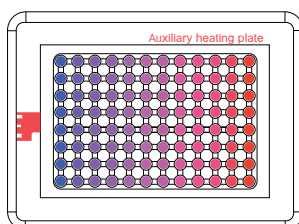
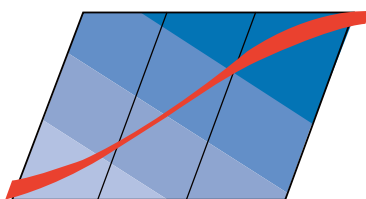
The TC1000G/S is an essential laboratory instrument for Molecular Biology with applications such as sequencing, gene cloning, gene expression, mutagenesis, and it is also used in areas such as drug discovery, agriculture, food industry, etc.



Excellent temperature uniformity



Temperature gradient



## Features

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

# More features

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



LCD touch panel



Excellent temperature accuracy

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

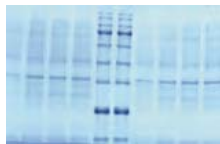
# GeISmart

## Features

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



ECO Safe staining



Coomassie blue  
stained SDS-PAGE



colony dish image

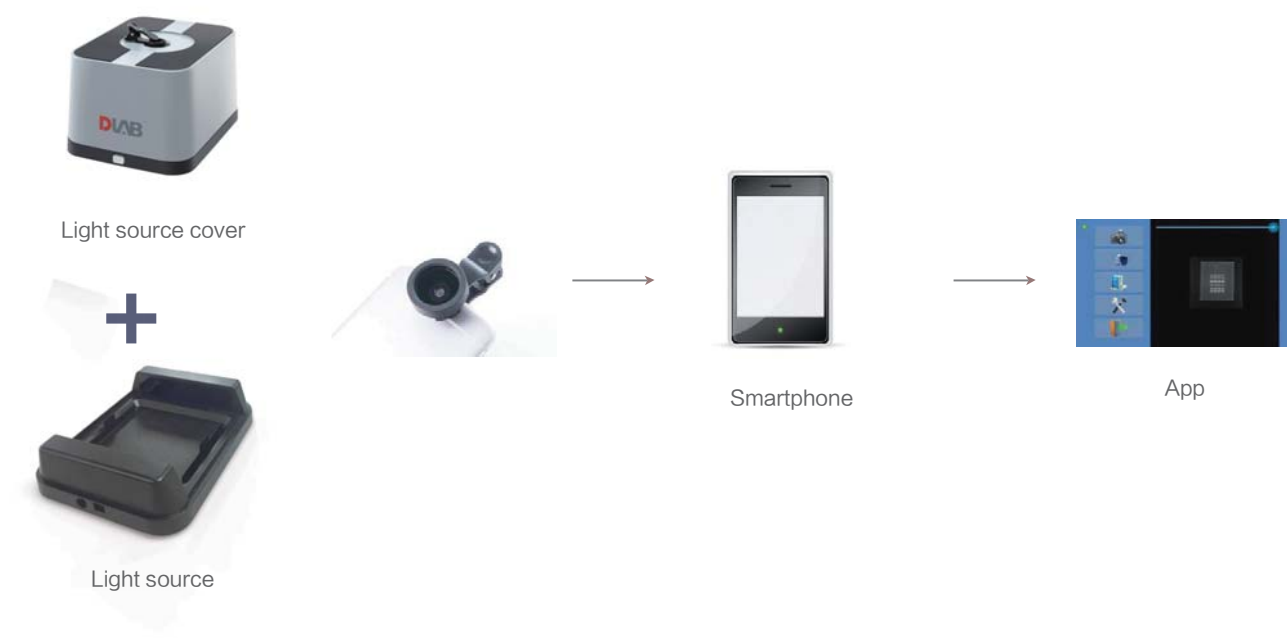
## Applications

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

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

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

## Applications



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



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



# Stirring&Heating

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

### Magnetic Hotplate Stirrers:

| Series     | Model                 | Image                                                                               | Stirring Position | Display | Work plate Size | Max. Heating Temp. | Max. stirring quantity[H <sub>2</sub> O] | Page |
|------------|-----------------------|-------------------------------------------------------------------------------------|-------------------|---------|-----------------|--------------------|------------------------------------------|------|
| 500series  | MS10-H500-Pro         |    | 1                 | LCD     | 254X254mm       | 500°C              | 30L                                      | p.49 |
| 550 series | MS7-H550-Pro          |    | 1                 | LCD     | 184x184mm       | 550°C              | 20L                                      | p.50 |
|            | MS7-H550-S            |    | 1                 | LED     | 184x184mm       | 550°C              | 10L                                      | p.50 |
| 340 series | MS-H-Pro <sup>A</sup> |   | 1                 | LCD     | Ø135mm          | 340°C              | 20L                                      | p.53 |
|            | MS-H-Pro <sup>+</sup> |  | 1                 | LCD     | Ø135mm          | 340°C              | 20L                                      | p.53 |
|            | MS-H-Pro <sup>T</sup> |  | 1                 | LCD     | Ø135mm          | 340°C              | 20L                                      | p.53 |
|            | MS-H-S                |  | 1                 | Scale   | Ø135mm          | 340°C              | 20L                                      | p.53 |
| 380 series | MS-H380-Pro           |  | 1                 | LCD     | 140x140mm       | 380°C              | 5L                                       | p.51 |
| 280 series | MS-H280-Pro           |  | 1                 | LED     | Ø135mm          | 280°C              | 3L                                       | p.51 |
| 340 series | MS-H340-S4            |  | 4                 | LCD     | Ø135mm          | 340°C              | 3Lx4                                     | p.55 |
| 120 series | MS-H-S10              |  | 10                | Scale   | 180x450mm       | 120°C              | 0.4Lx10                                  | p.56 |

## Magnetic Stirrers:

| Image                                                                               | Model    | Stirring Position | Display | Work plate Size | Max. stirring quantity[H <sub>2</sub> O] | Page |
|-------------------------------------------------------------------------------------|----------|-------------------|---------|-----------------|------------------------------------------|------|
|    | MS7-S    | 1                 | Scale   | 184x184mm       | 10L                                      | p.63 |
|    | MS-S     | 1                 | Scale   | Ø135mm          | 20L                                      | p.63 |
|    | MS6-Pro  | 1                 | LCD     | 140x140mm       | 5L                                       | p.63 |
|    | MS-PA    | 1                 | LED     | Ø135mm          | 3L                                       | p.64 |
|   | MS-PB    | 1                 | Scale   | Ø135mm          | 3L                                       | p.64 |
|  | EcoStir  | 1                 | Scale   | 120x115mm       | 1.5L                                     | p.66 |
|                                                                                     |          | 1                 | Scale   | Ø120mm          | 1.5L                                     | p.67 |
|  | FlatSpin | 1                 | -       | Ø90mm           | 0.8L                                     | p.66 |
|  | MS-M-S10 | 10                | Scale   | 180x450mm       | 0.4Lx10                                  | p.65 |

## Hotplate:

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

## Application guidance:

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

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

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

### Overhead stirrers:

|                                          |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |
|------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Models                                   |  |  |  |  |  |
| Models                                   | OS20-Pro                                                                          | OS20-S                                                                            | OS40-Pro                                                                          | OS40-S                                                                             | OS70-Pro                                                                            |
| Max. Stirring Quantity[H <sub>2</sub> O] | 20L                                                                               | 20L                                                                               | 40L                                                                               | 40L                                                                                | 70L                                                                                 |
| Constant Speed                           | YES                                                                               | NO                                                                                | YES                                                                               | NO                                                                                 | YES                                                                                 |
| Display                                  | LCD                                                                               | LED                                                                               | LCD                                                                               | LED                                                                                | LCD                                                                                 |
| Speed Range                              | 50-2200rpm                                                                        | 50-2200rpm                                                                        | 50-2200rpm                                                                        | 50-2200rpm                                                                         | 50-1100rpm                                                                          |
| Max. Torque                              | 40N · cm                                                                          | 40N · cm                                                                          | 60N · cm                                                                          | 60N · cm                                                                           | 300N · cm                                                                           |
| Viscosity Max.                           | 10000mPa · s                                                                      | 10000mPa · s                                                                      | 50000mPa · s                                                                      | 50000mPa · s                                                                       | 100000mPa · s                                                                       |
| Page                                     | P.70                                                                              | P.71                                                                              | P.70                                                                              | P.71                                                                               | P.70                                                                                |



## MS10-H500-Pro

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



## Features

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

## MS7-H550-Pro

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



## MS7-H550-S

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



## Features

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

## MS-H380-Pro

### LCD Digital Magnetic Hotplate Stirrer

#### Features

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



## MS-H280-Pro

### LED Digital Magnetic Hotplate Stirrer

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

#### Features

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

| Specifications                               | MS10-H500-Pro                      | MS7-H550-Pro                       | MS7-H550-S                         |
|----------------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| Work plate Dimension [W x D]                 | 254x254mm ( 10 inch )              | 184x184mm ( 7 inch )               | 184x184mm ( 7 inch )               |
| Work plate material                          | Glass ceramic                      | Glass ceramic                      | Glass ceramic                      |
| Motor type                                   | Brushless DC motor                 | Brushless DC motor                 | Shaded pole motor                  |
| Stirring positions                           | 1                                  | 1                                  | 1                                  |
| Max. stirring quantity, [H <sub>2</sub> O]   | 30L                                | 20L                                | 10L                                |
| Max. magnetic bar[length]                    | 80mm                               | 80mm                               | 80mm                               |
| Speed range                                  | 100–1500rpm, resolution ± 1rpm     | 100–1500rpm, resolution ± 1rpm     | 0–1500rpm                          |
| Speed display                                | –                                  | LCD                                | Scale                              |
| Temperature display                          | LCD                                | LCD                                | LED                                |
| Heating temperature range                    | Room Temp.–500°C,<br>increment 1°C | Room Temp.–550°C,<br>increment 1°C | Room Temp.–550°C,<br>increment 5°C |
| Temperature control accuracy                 | ± 1°C(<100°C) ± 1%(>100°C)         | ± 1°C(<100°C) ± 1%(>100°C)         | ± 10°C                             |
| Overheating protection                       | 540°C                              | 580°C                              | 580°C                              |
| Temperature display accuracy                 | ± 0.1°C                            | ± 0.1°C                            | ± 1°C                              |
| External temperature sensor                  | PT1000(accuracy ± 0.2°C)           | PT1000(accuracy ± 0.2°C)           | PT1000(accuracy ± 0.2°C)           |
| "Hot" warning                                | 50°C                               | 50°C                               | 50°C                               |
| Data connector                               | SD card                            | RS232                              | –                                  |
| Protection class                             | IP21                               | IP21                               | IP21                               |
| Motor rating input                           | –                                  | 18W                                | 15W                                |
| Motor rating output                          | –                                  | 10W                                | 1.5W                               |
| Power                                        | 1400W                              | 1050W                              | 1030W                              |
| Heating output                               | 1350W                              | 1000W                              | 1000W                              |
| Voltage                                      | 100–120/200–240V, 50/60Hz          | 100–120/200–240V, 50/60Hz          | 100–120/200–240V, 50/60Hz          |
| Dimension [WxDxH]                            | 328x424x138mm                      | 215x360x112mm                      | 215x360x112mm                      |
| Weight                                       | 7.18kg                             | 5.3kg                              | 4.5kg                              |
| Timer function                               | 1min–99h59min                      | –                                  | –                                  |
| Permissible ambient temperature and humidity | 5–40°C,80%RH                       | 5–40°C,80%RH                       | 5–40°C,80%RH                       |



Overheating protection



External sensor



Chemical resistance



Wide range of accessories

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

### LCD Digital Magnetic Hotplate Stirrer

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

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

### LCD Digital Magnetic Hotplate Stirrer

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

### LCD Digital Magnetic Hotplate Stirrer with Timer

## MS-H-S

### Analog Magnetic Hotplate stirrer



## Features

- Brushless DC motor is maintenance free and explosion-proof
- Digital temperature control up to 340°C
- Digital speed control up to 1500rpm
- Maximum stirring quantity of H<sub>2</sub>O is 20L
- Safety circuits provide overheating protection
- "HOT" warning flashes if plate temperature is above 50°C even when hotplate is turned off
- Wide range timer function from 1 min to 99h 59min (MS-H-Pro<sup>T</sup> only)
- High-resolution LCD display shows actual temperatures and speed (MS-H-Pro<sup>T</sup> displays the time)
- External temperature control is possible by connecting the temperature sensor (PT 1000) with accuracy at  $\pm 0.2^{\circ}\text{C}$
- Work plate with ceramic coating provides good chemical-resistant performance
- Remote function provides PC control and data transmission
- Wide variety of accessories available to choose

## Security

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



External sensor



RS232 connector



Wide range of accessories



Chemical resistance



Brushless DC motor

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





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

## Features

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

## MS-H340-S4

### LCD 4-Channel Digital Magnetic Hotplate Stirrer



| Specifications                                               | MS-H340-S4                           |
|--------------------------------------------------------------|--------------------------------------|
| Work plate dimension                                         | Ø135mm ( 5 inch )                    |
| Plate material                                               | Stainless steel with ceramic coating |
| Motor type                                                   | Brushless DC motor                   |
| Stirring positions                                           | 4                                    |
| Max. stirring quantity of single position (H <sub>2</sub> O) | 10L                                  |
| Max. magnetic bar                                            | 40mm                                 |
| Speed range                                                  | 200–1500rpm                          |
| Speed display                                                | LCD                                  |
| Temperature display                                          | LCD                                  |
| Control accuracy of sensor                                   | ± 20rpm                              |
| Temperature range                                            | 25–340°C                             |
| Over temperature protection                                  | 420°C                                |
| Temperature display accuracy                                 | ± 0.1°C                              |
| External temp. sensor PT1000 Accuracy                        | PT1000( accuracy ± 0.2°C )           |
| IP Protection class                                          | IP21                                 |
| Motor rating input                                           | 1.8Wx4                               |
| Power                                                        | 515Wx4                               |
| Heating Powe                                                 | 500Wx4                               |
| Voltage                                                      | 100–120V,60Hz; 200–240V,50 Hz        |
| Dimensions[WxDxH]                                            | 698x270x128mm                        |
| Weight                                                       | 9.5kg                                |
| Permissible ambient temperature                              | 5–40°C                               |
| Permissible relative humidity                                | 80%RH                                |

# MS-H-S10

## 10-Position Magnetic Hotplate Stirrer



| Specifications                               | MS-H-S10                             |
|----------------------------------------------|--------------------------------------|
| Work plate dimension[W x D]                  | 180x450mm                            |
| Work Plate material                          | Stainless steel with ceramic coating |
| Motor type                                   | Brushless DC motor                   |
| Stirring positions                           | 10                                   |
| Max. stirring quantity                       | 0.4Lx10                              |
| Max. magnetic bar [length]                   | 40mm                                 |
| Speed range                                  | 0–1100rpm                            |
| Speed display                                | scale                                |
| Temperature display                          | scale                                |
| Heating temperature range                    | Room temp. – 120°C                   |
| Over temperature protection                  | 140°C                                |
| IP Protection class                          | IP21                                 |
| Motor rating input                           | 12W                                  |
| Motor rating output                          | 4W                                   |
| Power                                        | 490W                                 |
| Heating Powe                                 | 470W                                 |
| Voltage                                      | 100–120/200–240V, 50/60Hz            |
| Dimensions[WxDxH]                            | 182 × 622 × 65mm                     |
| Weight                                       | 3.2kg                                |
| Permissible ambient temperature and humidity | 5–40°C, 80%RH                        |

## Features

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



Skid resistance



Multiple position



Brushless DC motor



## Tips for temperature control

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

## Alloy-Bead Heating Bath

### Features

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

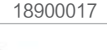


## Stirrer bars

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

| Cat. No.                                                                                        | Size of stirrer bars<br>(LxØ)[mm]       | Models                                                                             |                                       |                                             |
|-------------------------------------------------------------------------------------------------|-----------------------------------------|------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------|
|                                                                                                 |                                         | MS7-H550-Pro<br>MS7-H550-S<br>MS-H-Pro+<br>MS-H-Pro <sup>T</sup><br>MS-H-S<br>MS-S | MS-H280-Pro<br>MS-PA<br>MS-PB         | MS-H-S10<br>MS-M-S10<br>FlatSpin<br>EcoStir |
|                                                                                                 |                                         | Suitable for max.<br>stirrer bar 80mm                                              | Suitable for max.<br>stirrer bar 50mm | Suitable for max.<br>stirrer bar 40mm       |
| <br>18900006   | 10mmx6mm                                | ■                                                                                  | ■                                     | ■                                           |
| <br>18900007  | 15mmx8mm                                | ■                                                                                  | ■                                     | ■                                           |
| <br>18900008 | 20mmx8mm                                | ■                                                                                  | ■                                     | ■                                           |
| <br>18900009 | 25mmx8mm                                | ■                                                                                  | ■                                     | ■                                           |
| <br>12500005 | 30mmx6mm                                | ■                                                                                  | ■                                     | ■                                           |
| <br>18900011 | 40mmx8mm                                | ■                                                                                  | ■                                     | ■                                           |
| <br>12500004 | 50mmx8mm                                | ■                                                                                  | ■                                     |                                             |
| <br>18900013 | 65mmx8mm                                | ■                                                                                  |                                       |                                             |
| <br>18900014 | 80mmx13mm                               | ■                                                                                  |                                       |                                             |
| <br>18900015 | Stirrer bar remover, length<br>of 200mm | ■                                                                                  | ■                                     | ■                                           |



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



## HP500-Pro

### LCD Digital Hotplate

## Features

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

| Specifications                               | HP500-Pro                                           |
|----------------------------------------------|-----------------------------------------------------|
| Work plate Dimension [W x D]                 | 254x254mm ( 10 inch )                               |
| Work plate material                          | Glass ceramic                                       |
| Heating position                             | 1                                                   |
| Heating temperature range                    | Room Temp.-500°C, increment 1°C                     |
| Temperature control accuracy                 | $\pm 1^{\circ}\text{C}$ (<100°C) $\pm 1\%$ (>100°C) |
| Safety temperature                           | 540°C                                               |
| Temperature,time display                     | LCD                                                 |
| Timer function                               | 1min-99h59min                                       |
| Temperature display accuracy                 | $\pm 0.1^{\circ}\text{C}$                           |
| External temperature sensor                  | PT1000( $\pm 0.2^{\circ}\text{C}$ )                 |
| "Hot" warning                                | 50°C                                                |
| Protection class                             | IP21                                                |
| Power                                        | 1400W                                               |
| Heating output                               | 1350W                                               |
| Voltage Frequency                            | 100-120/200-240V, 50/60Hz                           |
| Dimension[WxDxH]                             | 328x424x138mm                                       |
| Weight                                       | 7.18kg                                              |
| Permissible ambient temperature and humidity | 5-40°C, 80%RH                                       |

# HP550-S

## LED Hotplate



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

## Features

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

## HP380-Pro

### LCD Digital Hotplate



## Features

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

| Specifications                               | HP380-Pro                           |
|----------------------------------------------|-------------------------------------|
| Work plate Dimension [W x D]                 | 140x140mm (7 inch)                  |
| Work plate material                          | Aluminum cover with ceramic coating |
| Heating temperature range                    | Room temp.~340°C increment 1°C      |
| Temperature display                          | LCD                                 |
| Temperature display accuracy                 | ± 1°C                               |
| External temperature sensor                  | PT1000 ( accuracy ± 0.2°C )         |
| Protection class                             | IP21                                |
| Power                                        | 510W                                |
| Voltage Frequency                            | 100~120/200~240V, 50/60Hz           |
| Dimension[WxDxH]                             | 180x320x108mm                       |
| Weight                                       | 2.2kg                               |
| Permissible ambient temperature and humidity | 5~40°C, 80%RH                       |
| Over heat Protection                         | 420°C                               |
| Heating output                               | 500W                                |

## MS-S

### Magnetic Stirrer

## MS7-S

### 7" Square Magnetic Stirrer

- Speed range of 0–1500rpm
- Maximum stirring quantity of H<sub>2</sub>O up to 10L
- Ceramic work plate provides excellent corrosion resistance



MS7-S



MS-S



MS6-Pro

## MS6-Pro

### LCD Digital Magnetic Stirrer

- High resolution LCD displays actual stirring speed
- Brushless DC motor is maintenance free
- Aluminum cover with ceramic work plate for immediate heating
- Digital speed control up to 1500rpm
- Maximum stirring quantity of H<sub>2</sub>O at 5L

| Specifications                               | MS7-S                     | MS-S                               | MS6-Pro                             |
|----------------------------------------------|---------------------------|------------------------------------|-------------------------------------|
| Work plate Dimension [W x D]                 | 184x184mm (7 inch)        | Ø135mm ( 5 inch )                  | 140x140mm                           |
| Work plate material                          | Glass ceramic             | Stainless steel cover with ceramic | Aluminum cover                      |
| Motor type                                   | Shaded pole motor         | Brushless DC motor                 | Aluminum cover with ceramic coating |
| Stirring positions                           | 1                         | 1                                  | 1                                   |
| Max. stirring quantity[H <sub>2</sub> O]     | 10L                       | 20L                                | 5L                                  |
| Max.magnetic bar[length]                     | 80mm                      | 80mm                               | 40mm                                |
| Speed range                                  | 0–1500rpm                 | 0–1500rpm                          | 200–1500rpm                         |
| Speed display                                | Scale                     | Scale                              | LCD                                 |
| Protection class                             | IP21                      | IP42                               | IP21                                |
| Motor input Power                            | 15W                       | 18W                                | 2.4W                                |
| Motor output Power                           | 1.5W                      | 10W                                | 1.8W                                |
| Power                                        | 30W                       | 30W                                | 10W                                 |
| Voltage                                      | 100–120/200–240V, 50/60Hz | 100–240V, 50/60Hz                  | 100–240V, 50/60Hz                   |
| Dimension[WxDxH]                             | 215x360x112mm             | 160x280x85mm                       | 320x180x108mm                       |
| Weight                                       | 3.8kg                     | 2.8kg                              | 2.2kg                               |
| Permissible ambient temperature and humidity | 5–40°C, 80%RH             | 5–40°C, 80%RH                      | 5–40°C, 80%RH                       |

## MS-PA

### LED Digital Magnetic Stirrer

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

## Features

- Digital speed control within the range of 0–1500rpm
- Maximum stirring quantity of H<sub>2</sub>O at 3L
- LED display shows stirring speed (MS-PA)



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



Strong magnetism



Chemical resistance



LED display

# MS-M-S10

## 10-Position Magnetic Stirrer



| Specifications                               | MS-M-S10                              |
|----------------------------------------------|---------------------------------------|
| Work plate Dimension [W x D]                 | 180 × 450mm                           |
| Work plate material                          | Stainless steel with silicone coating |
| Motor type                                   | Brushless DC motor                    |
| Stirring positions                           | 10                                    |
| Max. stirring quantity[H <sub>2</sub> O]     | 0.4Lx10                               |
| Max.magnetic bar[length]                     | 40mm                                  |
| Speed range                                  | 0–1100rpm                             |
| Speed display                                | Scale                                 |
| Protection class                             | IP21                                  |
| Motor input Power                            | 12W                                   |
| Motor output Power                           | 4W                                    |
| Power                                        | 20W                                   |
| Voltage                                      | 100–120/200–240V, 50/60Hz             |
| Dimension[WxDxH]                             | 622x205x65mm                          |
| Weight                                       | 3.2kg                                 |
| Permissible ambient temperature and humidity | 5–40℃, 80%RH                          |

## Features

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



Skid resistance



Multiple position

# FlatSpin

## Ultra-flat Compact Magnetic Stirrer

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

| Specifications                               | FlatSpin                  |
|----------------------------------------------|---------------------------|
| Work plate Dimension                         | Ø90mm                     |
| Work plate material                          | PET                       |
| Motor type                                   | Motorless                 |
| Stirring positions                           | 1                         |
| Max. stirring quantity[H <sub>2</sub> O]     | 0.8L                      |
| Max.magnetic bar[length]                     | 40mm                      |
| Speed range                                  | 15–1500rpm                |
| Speed display                                | button                    |
| Protection class                             | IP65                      |
| Motor output Power                           | 3W                        |
| Power                                        | 5W                        |
| Voltage                                      | 100–120/200–240V, 50/60Hz |
| Dimension[WxDxH]                             | 175x120x15mm              |
| Weight                                       | 0.3kg                     |
| Permissible ambient temperature and humidity | 5–40°C, 80%RH             |



## Features

- Speed range 15 to 1500rpm
- Automatic reverse rotation for excellent mixing
- Protection class (IP65)
- PET top work plate provides excellent chemical resistance
- Motorless technology provides ultra silent and vibration-free operation
- Perfect magnetic stirrer for use during titration (bottle-top burette) in analytical chemistry



# EcoStir

## Economical Magnetic Stirrer

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

## Features

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

# EcoStir

## Square Plate Magnetic Stirrer

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

## Features

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



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

# D-160

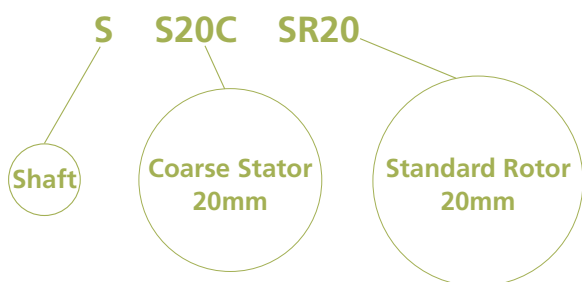
## Handheld Homogenizer

### Features

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

### Applications

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



| Specifications                     | D-160                                                                        |
|------------------------------------|------------------------------------------------------------------------------|
| Power Supply                       | 110–120V/60Hz<br>220–240V/50–60Hz                                            |
| Motor Type Universal motor         | 160 W<br>AC carbon brush motor                                               |
| Speed Range                        | 8000–32000rpm                                                                |
| Max. Circum. Speed                 | 6.3–14m/sec                                                                  |
| Speed Control Dial knob            | 10 stage                                                                     |
| Working Volume [ H <sub>2</sub> O] | 0.1–50mL (Dispersing shaft DS–160/5)<br>1–250mL (Dispersing shaft DS–160/10) |
| Max. Viscosity                     | 5,000mPas                                                                    |
| Material of Dispersing Shaft       | SS 316L stainless steel, PTFE                                                |
| Weight                             | 0.54 kg                                                                      |
| Dimension [L x W x H]              | 45mm x 55mm x 190mm                                                          |
| Noise                              | 72 dB(A)                                                                     |
| Operating Environment              | 0–40°C, 85%RH                                                                |
| Protection Class                   | IP20                                                                         |



## D-160

### Handheld Homogenizer

#### DS-160/5

Cat. No.18900543

Volume 0,1–50mL  
Max. Circum. Speed 6.3m/sec  
Material: 316L  
Application: small amounts of solid  
liquid mixed  
Function: dispersing tool for  
solid/liquid media

#### DS-160/10

Cat. No.18900544

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

#### Stator



S20C



S20F



S30C



S30F



S40C

#### Rotor



SR20



SR30



CR20



CR30



MR20



MR30



ER20



ER30

# OS20-Pro/OS40-Pro/ OS70-Pro

## LCD Digital Overhead Stirrer

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



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



## OS20-S/OS40-S

### LED Overhead Stirrer

## Features

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

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

## Plate Stands

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

**Cat. No.18900258**

Dimension [W x D x H] :  
20x31x78cm  
Material: stainless steel



### Grand Plate Stand (for OS70)

**Cat. No.18900497**

Dimension [W x D x H] :  
33,5x46,3x78cm  
Material: stainless steel



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

|                                                                                                                                                                                                |                                                                                                                 |                                                                                                                                                                                                                         |                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| <b>Propeller stirrer</b><br>Shaft length 40cm<br>Stirrer diameter 5cm<br>Shaft diameter : Ø8mm<br>Material: 316L stainless steel<br>Standard stirring applications<br>at medium and high speed | <b>Cat. No.18900071</b><br>    | <b>Paddle stirrer</b><br>Shaft length 40cm<br>Stirrer diameter 6,8cm<br>Shaft diameter: Ø8mm<br>Material: 316L stainless steel<br>For gentle mixing at low and<br>medium speeds                                         | <b>Cat. No.18900073</b><br>   |
| <b>Straight stirrer</b><br>Shaft length 40cm<br>Stirrer diameter 6cm<br>Shaft diameter: Ø8mm<br>Material: 316L stainless steel<br>For low viscosity media at<br>medium and high speeds         | <b>Cat. No.18900072</b><br>  | <b>Centrifugal stirrer</b><br>Shaft length 40cm<br>Stirrer diameter 9cm<br>Shaft diameter: Ø8mm<br>Material: 316L stainless steel<br>Blades open while speeding.<br>For narrow neck vessels at<br>medium to high speed. | <b>Cat. No.18900074</b><br> |
| <b>Propeller stirrer</b><br>Shaft length 35cm<br>Stirrer diameter 6,5cm<br>Shaft diameter: Ø8mm<br>Material: PTFE coated<br>Standard stirring applications<br>at medium and high speed         | <b>Cat. No.18900075</b><br>  | <b>Paddle stirrer</b><br>Shaft length 35cm<br>Stirrer diameter 6,8cm<br>Shaft diameter: Ø8mm<br>Material: PTFE coated<br>For gentle mixing at low and<br>medium speeds                                                  | <b>Cat. No.18900077</b><br> |
| <b>Straight stirrer</b><br>Shaft length 35cm<br>Stirrer diameter 7cm<br>Shaft diameter: Ø8mm<br>Material: PTFE coated<br>For low viscosity media at<br>medium and high speeds                  | <b>Cat. No.18900076</b><br>  | <b>Centrifugal stirrer</b><br>Shaft length 35cm<br>Stirrer diameter 8,5cm<br>Shaft diameter: Ø8mm<br>Material: PTFE coated<br>Blades open while speeding.<br>For narrow neck vessels at<br>medium to high speed.        | <b>Cat. No.18900078</b><br> |
| <b>Grand propeller stirrer</b><br>Shaft length 60cm<br>Stirrer diameter 10cm<br>Shaft diameter: Ø8mm<br>Material: 316L stainless steel<br>Standard stirring                                    | <b>Cat. No. 18900478</b><br> | <b>Grand paddle stirrer</b><br>Shaft length 60cm<br>Stirrer diameter 10cm<br>Shaft diameter: Ø8mm<br>Material: 316L stainless steel<br>Gentle mixing for those stratify<br>easily or sensitive to shear                 | <b>Cat. No.18900499</b><br> |
| <b>Grand anchor stirrer</b><br>Shaft length 60cm<br>Stirrer diameter 10m<br>Shaft diameter: Ø8mm<br>Material: 316L stainless steel<br>Standard stirring or for those<br>easily precipitate     | <b>Cat. No. 18900498</b><br> | <b>Grand dissolving stirrer</b><br>Shaft length 60cm<br>Stirrer diameter 10cm<br>Shaft diameter: Ø8mm<br>Material: 316L stainless steel<br>Breaking down granules in the<br>mixture with strong shear                   | <b>Cat. No.18900500</b><br> |

A male scientist with short brown hair and a beard, wearing a white lab coat over a blue shirt and clear safety goggles, is focused on his work. He is leaning over a piece of laboratory equipment, a rotary evaporator. A round-bottom flask containing a bright blue liquid is being rotated by a motor arm. In the foreground, a large, dark brown glass bottle sits on the lab bench. To the left, a smaller Erlenmeyer flask with blue liquid is visible. The background is a bright, out-of-focus laboratory setting with various pieces of equipment.

Distilling

**Evaporation Solutions!**  
**Leading Laboratory & Industrial Rotary evaporator**

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

## DLAB Rotary Evaporator models :

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

# RE200-Pro

## 20L Industrial Digital Rotary Evaporator

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



### Features

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

### Applications

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



Large LCD display



Overheating protection



Chemical resistance



### Double-layer high efficiency condenser

large condensation area and strong evaporation capacity ensuring efficient sample recovery



### Switching valve design

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



### Heating bath

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

| Specifications       | RE200-Pro                  |                                                                                                                                       |
|----------------------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| performance          | Temperature range          | Room temp. ~180°C (both water and oil)                                                                                                |
|                      | Control Accuracy           | Water: $\pm 1^\circ\text{C}$ Oil: $\pm 3^\circ\text{C}$                                                                               |
|                      | Rotation Speed             | 10~150rpm                                                                                                                             |
|                      | Evaporation capacity       | Max.4.0L/h (water vapor volume)                                                                                                       |
|                      | Ultimate vacuum            | Less 2.6hpa                                                                                                                           |
| function             | Temperature control method | Micro processor PID control                                                                                                           |
|                      | Display                    | LCD (temperature/speed/clockwise and Anti-clockwise/time)                                                                             |
|                      | Stroke Displacement        | Automatic 180mm                                                                                                                       |
|                      | Safety features            | Motor over-current protection, Residual Current Device, lifting overload protection, Boil-dry protection, over-temperature protection |
| components           | Sample flask               | Round flask 20L                                                                                                                       |
|                      | Receiving flask            | Round flask 10L with drain valve                                                                                                      |
|                      | Condenser                  | Two-section vertical triple serpentine condenser, cooling surface 1.2m <sup>2</sup>                                                   |
| specification        | Heating bath size          | $\varnothing 450 \times 240\text{mm}$                                                                                                 |
|                      | Takeover caliber           | Cooling/suction nozzle outer diameter 16mm, vacuum pump nozzle outer diameter 16mm                                                    |
| Dimension[D × W × H] |                            | 1160 × 600 × 1860mm                                                                                                                   |
| Power supply         |                            | 220V/4600W/50/60Hz                                                                                                                    |

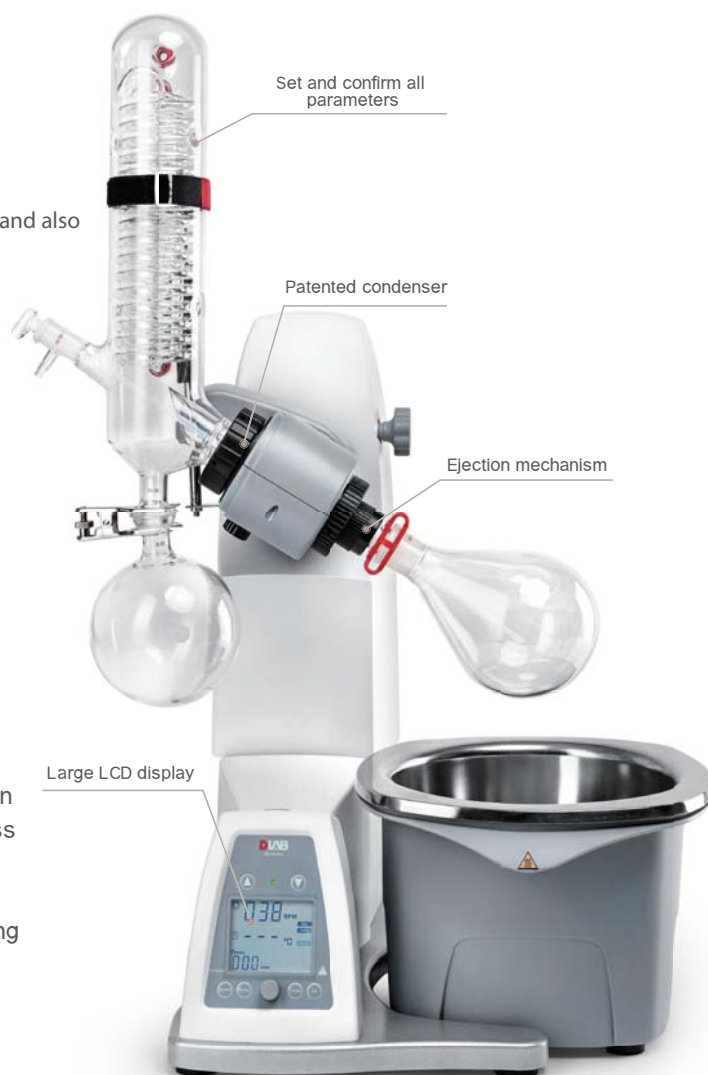
# RE100-Pro

## Digital Rotary Evaporator

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

### Features

- Digital LCD display of both rotation speed and heating temperature allows for optimal control of all distillation processes
- Automatic motor lift releases the evaporating flask to a safe position in case of power failure
- 5L heating bath with wide temperature range from room temperature to 180 °C Water/oil heating mode can be changed only through a switch
- Overheating protection temperature at 220 °C
- Boil-dry protection, automatically power off if heating without water/oil in the heating bath
- Speed range from 20 to 280rpm, and interval operation in clockwise and anticlockwise directions for drying process
- Patented condenser (cooling surface 1700cm<sup>2</sup>) with excellent cooling effect
- Ejection mechanism ensures easy removal of evaporating flask
- Patented double spring sealing ring made of PTFE provides an excellent sealing performance
- Optional glassware with explosion proof film available



Large LCD display



USB connector



Chemical resistance



Overheating protection



Compatible with all range of glassware

| Specifications                  | RE100-Pro                     |
|---------------------------------|-------------------------------|
| Motor Type                      | Brushless DC motor            |
| Speed Range                     | 20–280rpm                     |
| Display                         | LCD(speed, temperature, time) |
| Clockwise and Anti-clockwise    | Yes                           |
| Heating Temperature Range       | Room temp. to 180°C           |
| Control Accuracy                | water: ± 1°C oil: ± 3°C       |
| Heating Power                   | 1300W                         |
| Stroke Displacement             | automatic 150mm               |
| Timer                           | Yes                           |
| Time Setting Range              | 1–999min                      |
| Dimension[D × W × H]            | 465 × 457 × 583mm             |
| Weight                          | 15kg                          |
| Permissible Ambient Temperature | 5–40°C                        |
| Permissible Relative Humidity   | 80%RH                         |
| Protection Class                | IP20                          |
| USB Interface                   | Yes                           |
| Voltage/Frequency               | 100–120/200–240V, 50/60Hz     |
| Power                           | 1400W                         |

# RE100-S

## LED Digital Rotary Evaporator

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

## Features

- 5L heating bath with a wide temperature range (room temp.to180°C). Independent temperature control makes it can be used separately. Water/oil heating mode can be changed just through a switch
- Manual lift combined with auxiliary lift for precise positioning of the glassware
- PID control ensures high temperature accuracy at  $\pm 1^{\circ}\text{C}$  (water)
- Overheating protection temperature at  $220^{\circ}\text{C}$
- 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), speeding up the flow rate of liquid with excellent cooling effect
- Ejection mechanism ensures easy exchange of evaporating flask
- Adjustable immersion angle
- Patented double spring sealing ring which is made of PTFE provides an excellent sealing performance
- Compatible with the entire range of RE100-Pro glassware
- Optional glassware with explosion proof film available
- Over heating warning when above  $50^{\circ}\text{C}$



Chemical resistance



Overheating protection



Compatible with wide range of glassware



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

## Vertical

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

## Diagonal

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

## Heating Bath

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

## Heating Bath Lid

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

## Glassware



## Evaporating flask

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



## Foam brake

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



## Evaporation tube

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



## Receiving flask

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



## Distilling spider with 5 flasks(without flask)

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



## Connector

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

# Optional Add-ons

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



### C410 Chemistry-design diaphragm pump

#### Specifications

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

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

Noise:50dB

### Seals and other accessories

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

### Vacuum regulator/ moisture trap

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

# VC100

## Vacuum Controller Reliable, robust, efficient and extremely durable

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



## Features

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

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



# Centrifuges

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

**List of DLAB models:**

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

# D1008

## Palm Micro Centrifuge

## Applications

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

## Features

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



Quiet operation



Vibration free



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

## Available rotors

**A04-RCR8****Cat. No.19200810**

Max. speed:7000rpm

Max. RCF:2680 × g

Rotor capacity: 0.2 mL × 32 PCR strips,

0.2 mL × 4 PCR 8 strips

Rotor material: High strength plastic

**A8-2P****Cat. No.19400015**

Max. speed:7000rpm

Max. RCF:2680 × g

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

Rotor material:High strength plastic

Available rotor adapters:SA02P2, SA05P2



## Available adapters

**SA02P2****Cat. No.19400029**

0.2mL rotor adapter

Used with A08-2 rotor

8pcs/pk

**SA05P2****Cat. No.19400026**

0.5mL rotor adapter

Used with A08-2 rotor

8pcs/pk



# D2012 Plus

## High Speed Mini Centrifuge

### Features

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



Brushless DC motor



LCD display

### Applications

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

### Available rotors



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

#### A12-2P

Cat.NO.19400010

#### for D2012plus only

Max. speed: 15000rpm

Max. RCF: 15100 × g

Rotor capacity:

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

Rotor material: High strength plastic

Available rotor adapters: A02P2, A05P2



### Available adapters

#### A02P2

Cat. No.19500001

0.2mL rotor adapter

Used with A12-2, A12-2P,

AS24-2 and A24-2P

rotors 24 pcs/pk



#### A05P2

Cat. No.19500002

0.5mL rotor adapter

Used with A12-2, A12-2P,

AS24-2 and A24-2P

rotors 24 pcs/pk



# D1524R

## High-speed Refrigerated Micro Centrifuge



## Applications

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

## Features

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



| Specifications                     | D1524R                                                                                                                                                    |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Max. Speed                         | 15,000rpm (200–15,000rpm) in 100rpm increments.                                                                                                           |
| Max. RCF                           | 21,380 × g, step: 10 × g                                                                                                                                  |
| Capacity                           | 1.5/2mL × 24, 0.5mL × 36, PCR8 × 4, 5mL × 12, 5mL × 18.                                                                                                   |
| Temperature setting                | -20°C– 40°C                                                                                                                                               |
| Run Time                           | 30s–99 min; HOLD (continuous running)                                                                                                                     |
| Acceleration and deceleration time | 25s ↑ 25s ↓                                                                                                                                               |
| Motor Type                         | Brushless DC motor                                                                                                                                        |
| Safety Performance                 | Dual door lock, over-speed detection, over-temperature detection with Internal diagnosis system.                                                          |
| Power Requirements                 | Single-phase, 200V–240V, 50Hz/60Hz, 500W100V–120V, 50Hz/60Hz, 500W                                                                                        |
| Noise                              | ≤56dB                                                                                                                                                     |
| Dimensions[WxDxH]                  | 332 × 553 × 283mm                                                                                                                                         |
| Weight                             | 30kg                                                                                                                                                      |
| Certification                      | CE cTUVus FCC                                                                                                                                             |
| Other functions                    | Rotation speed/RCF switchover, inching operation, running processindicator, sound alert. Acceleration/ deceleration in 9 steps, program storage capacity. |

# D3024

## High Speed Micro Centrifuge



## Features

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

## Applications

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

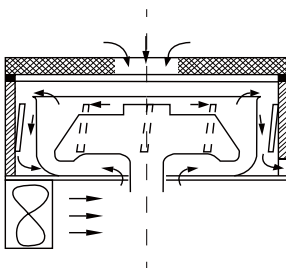


Brushless DC motor



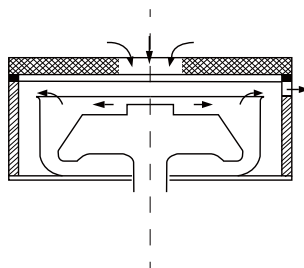
Wide range of rotors

### Effective Ventilation System



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

### Conventional design



Limited ventilation on the upper side of the rotor

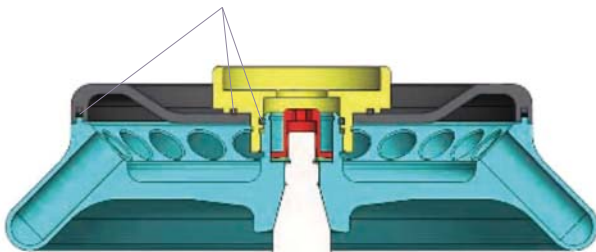


DLAB rotors are manufactured from military-industrialgrade aluminum alloy with high mechanical strength for precise running and safety (excludes D2012 plus rotor)

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

### Seals within the aluminum alloy rotor

Three rubber seals fitted to achieve bio-safe condition



## Rotor Features

### Fully autoclavable

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

### Three-layer seal

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

### Mechanical safety

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

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

## Available rotors

### AS24-2

Cat. No.19400069

#### for D3024 & D1524R

Max. speed: 15000rpm

Max. RCF: 21380 × g

Rotor capacity:

2mL/1.5mL × 24/0.2mL × 24/0.5mL × 24

Rotor material: Aluminum alloy

Bio-safe(Bio sealing): Yes

Available rotor adapters: A02P2,A05P2



### AS18-5 (round bottom)

Cat. No.19400073

#### for D3024 & D1524R

Max. speed :15000rpm

Max. RCF:21380 × g

Rotor capacity:5mL × 18 ( Round bottom)

Rotor material:Aluminum alloy

Bio-safe(Bio sealing):Yes



### AS12-5V (cone bottom)

Cat. No.19400070

#### for D3024 & D1524R

Max. speed: 15000rpm

Max. RCF: 21380 × g

Rotor capacity: 5mL × 12(Cone bottom)

Rotor material: Aluminum alloy

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



### AS36-05

Cat. No.19400071

#### for D3024 & D1524R

Max. speed: 15000rpm

Max. RCF: 21380 × g

Rotor capacity: 0.5mL × 36,0.2mL × 36

Rotor material: Aluminum alloy

Bio-safe(Bio sealing): Yes

Available rotor adapters: A02P05



### A05P2

Cat. No.19500002

0.5mL rotor adapter

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



### AS4-PCR8

Cat. No.19400072

#### for D3024 & D1524R

Max. speed: 15000rpm

Max. RCF: 21380 × g

Rotor capacity:0.2mL/PCR8 × 4

Rotor material: Aluminum alloy

Bio-safe(Bio sealing): Yes



### A02P05

Cat. No.19500003

0.2mL rotor adapter

Used with AS36-05 rotor 36pcs/pk



# DM1424

## Hematocrit Centrifuge

### Features

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



# DM1224

## Economical Hematocrit Centrifuge

### Features

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

### Applications

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



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



## Available rotors

| AC24                                                                                                                                                       | Cat. No.19400047 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| <b>DM1424 &amp; DM1224</b><br>Max. speed: 12000rpm<br>Max. RCF: 13680 × g<br>Rotor capacity: capillary tubes x24<br>Rotor material: High strength aluminum |                  |
|                                                                                                                                                            |                  |



# DM0412

## Low Speed Centrifuge

### Features

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



### Applications

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

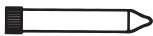
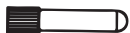
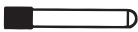
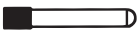
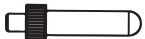
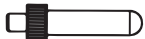


| Specifications            | DM0412                                                                 |
|---------------------------|------------------------------------------------------------------------|
| Speed Range               | 300-4500rpm, increment: 100rpm                                  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

## Available rotors

| A12-10P<br>(round bottom)                                                                                                                                                   | Cat. No.19200348                                                                  | A6-50P<br>(round bottom)                                                                                                                                                     | Cat. No.19100197                                                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>for DM0412 &amp; DM0424 &amp; DM0408</b><br>Max. speed: 4500rpm<br>Max. RCF: $2490 \times g$<br>Rotor capacity: 8x15mL, 12x10mL<br>Rotor material: High strength plastic |  | <b>For DM0412(A6-50P)</b><br>Max. speed: 4000rpm<br>Max. RCF: $1800 \times g$<br>Rotor capacity: 50mL $\times$ 6 or 15mL $\times$ 6<br>Rotor material: High strength plastic |  |

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

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

# DM0424&DM0408

## Multi-Purpose low Speed Centrifuge

### Features

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

### Applications

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



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

## Available rotors

|                                                                                                                                          |                         |
|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| <b>S6-15</b>                                                                                                                             | <b>Cat. No.19400082</b> |
| <b>for DM0424</b><br>Max. speed: 4000rpm<br>Rotor capacity: 15mL × 6<br>Rotor material: Aluminum alloy<br>Default adaptor: A15P22, A5P17 |                         |
|                                                         |                         |

|                                                                                                                                                                    |                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| <b>A12-10P</b>                                                                                                                                                     | <b>Cat. No.19200348</b> |
| <b>for DM0424/DM0408 DM0412</b><br>Max. speed : 4000rpm<br>Rotor capacity: 15mL × 8, 10mL × 12<br>Rotor material: High strength plastic<br>Default adaptor : A2P17 |                         |
|                                                                                 |                         |

|                                                                                                                                          |                         |
|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| <b>S4-50</b>                                                                                                                             | <b>Cat. No.19400100</b> |
| <b>for DM0424</b><br>Max. Speed: 4000rpm<br>Rotor capacity: 50mL × 4<br>Rotor material: Aluminum alloy<br>Default adaptor: A15P30, A5P17 |                         |
|                                                        |                         |

## Available adapters

|                                                                                                                        |                         |
|------------------------------------------------------------------------------------------------------------------------|-------------------------|
| <b>A15P30</b>                                                                                                          | <b>Cat. No.19500024</b> |
| 50ml change 15mL adapter,<br>Adapted to 17 × 120mm centrifuge<br>tube, 13/16 × 100mm blood<br>collection tube 4pcs/pk, |                         |
|                                   |                         |

|                                                                                                                                                  |                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| <b>A24-15P</b>                                                                                                                                   | <b>Cat. No.19400101</b> |
| <b>for DM0424</b><br>Max. speed: 4000rpm<br>Rotor capacity: 15mL × 24<br>Rotor material: High strength plastic<br>Default adaptor: A15P22, A5P17 |                         |
|                                                               |                         |

|                                                                                                                                 |                         |
|---------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| <b>A15P22</b>                                                                                                                   | <b>Cat. No.19500021</b> |
| 15ml adapter for 17 × 120mm<br>centrifuge tube, 13/16 × 100mm<br>blood collection tube 24 pcs/pk,<br>for S6-15, A24-15P, A8-15P |                         |
|                                            |                         |

|                                                                                                                                                 |                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| <b>A8-15P</b>                                                                                                                                   | <b>Cat. No.19400084</b> |
| <b>for DM0424/DM0408</b><br>Max. Speed: 4000rpm<br>Rotor capacity: 15mL × 8<br>Rotor material: High strength plastic<br>Default adaptor: A15P22 |                         |
|                                                              |                         |

|                                                                                                    |                         |
|----------------------------------------------------------------------------------------------------|-------------------------|
| <b>A5P17</b>                                                                                       | <b>Cat. No.19500022</b> |
| 5ml adapter, Adapted to 13 × 75mm<br>blood collection tube 24 pcs/pk,<br>for S4-50, S6-15, A24-15P |                         |
|               |                         |

|                                                                                                               |                         |
|---------------------------------------------------------------------------------------------------------------|-------------------------|
| <b>A2P17(Optional)</b>                                                                                        | <b>Cat. No.19500023</b> |
| 1.5/2ml Cryogenic Vials/ centrifuge<br>tube adapter, 24 pcs/pk, for S4-50,<br>S6-15, A24-15P, A12-10P, A6-50P |                         |
|                          |                         |

# DM0506

## Low-speed Centrifuge



### Available adapters

| A5P17                                                                               | Cat. No.19500022 |
|-------------------------------------------------------------------------------------|------------------|
| 5mL adapter, Adapted to 13 × 75mm blood collection tube                             |                  |
|  |                  |

| A2P17                                                                                 | Cat. No.19500023 |
|---------------------------------------------------------------------------------------|------------------|
| 1.5/2mL Cryogenic Vials/ centrifuge tube adapter                                      |                  |
|  |                  |

## Features

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

## Applications

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

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

# DM0636

## Multi-Purpose Low-speed Centrifuge

### Features

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



| Specifications            | DM0636                                                                             |
|---------------------------|------------------------------------------------------------------------------------|
| Speed Range               | 300–6000rpm increment:10rpm                                                        |
| Max. RCF                  | 4020xg                                                                             |
| Speed accuracy            | ± 20rpm                                                                            |
| Max. Capacity             | 100mLx4                                                                            |
| Run Time                  | 30sec–99mins/continuous                                                            |
| Motor                     | Brushless DC motor                                                                 |
| Display                   | LCD                                                                                |
| Program Memory            | 9                                                                                  |
| Safety Devices            | Door Imbalance protection Over speed & Over temperature detection                  |
| Acceleration/Deceleration | 9 ↑ /10 ↓ steps                                                                    |
| Power                     | 660W; Single-phase<br>AC220V–240V, 50Hz/60Hz, 6.3A;<br>AC110V–120V, 50Hz/60Hz, 10A |
| Dimension[WxDxH]          | 445x579x269mm                                                                      |
| Weight                    | 36kg                                                                               |
| Certification-CE          | Noise - 62 dB(A)                                                                   |
| Advanced features         | speed/rcf switch;<br>Rotor identification                                          |

### Applications

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



## Cat. No.19400041

Rotor material: stainless steel body and adapter

[illegible]

## Available rotors

### S2-MP

Cat. No.19400062

#### DM0636

Max. speed: 4000rpm

Max. RCF: 2200 × g

Rotor capacity: Micro-plates

384-PCR/96-PCR/Elisa

plates × 8pcs; Deep well plates × 4pcs

Rotor material: stainless steel body



### AS6-50V (cone bottom)

Cat. No.19400038

#### DM0636

Max. speed: 6000rpm

Max. RCF: 4020 × g

Rotor capacity: 50mL × 6 or 15mL × 6

Rotor material: aluminum

Biosealing: Yes



### AS12-PCR8

Cat. No.19400036

#### DM0636

Max. speed: 6000rpm

Max. RCF: 4020 × g

Rotor capacity: PCR 8 trips × 12

Rotor material: aluminum

Biosealing: Yes



### AS18-5V (cone bottom)

Cat. No.19400035

#### DM0636

Max. speed: 6000rpm

Max. RCF: 4020 × g

Rotor capacity: 5mL × 18

Rotor material: stainless steel body  
and aluminum buckets

Biosealing: Yes



### AS30-2

Cat. No.19400034

#### DM0636

Max. speed: 6000rpm

Max. RCF: 4020 × g

Rotor capacity: 2mL × 30

Rotor material: aluminum

Biosealing: Yes



### A8-50 (round bottom)

Cat. No.19400039

#### DM0636

Max. speed: 5000rpm

Max. RCF: 3960 × g

Rotor capacity: 50mL × 8 or  
15mL × 16

Rotor material: aluminum body  
and stainless steel adapter

Default adapters: SE100P31x8, SE100P17x6



### AS60-2

Cat. No.19400037

#### DM0636

Max. speed: 6000rpm

Max. RCF: 4020 × g

Rotor capacity: 2mL × 60

Rotor material: aluminum

Biosealing: Yes



### A30-15 (round bottom)

Cat. No.19400040

#### DM0636

Max. speed: 4500rpm

Max. RCF: 3210 × g

Rotor capacity: 15mL × 30

Rotor material: aluminum body and  
stainless steel

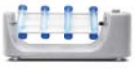
adapter Bio-safe(Biosealing): Yes





**Mixing**

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

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

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

| Series         | Image                                                                               | Model        | Plate Size  | Display | Speed Range | Max. Load Capacity | Page  |
|----------------|-------------------------------------------------------------------------------------|--------------|-------------|---------|-------------|--------------------|-------|
| Orbital Shaker |    | SK-O330-Pro  | 32x32cm     | LCD     | 100-500rpm  | 7.5Kg              | p.119 |
|                |    | SK-O180-Pro  | 25x24.5cm   | LCD     | 100-800rpm  | 2.5Kg              | p.119 |
|                |    | SK-O330-M    | 33.5x33.5cm | LCD     | 70-400rpm   | 3Kg                | p.120 |
|                |  | SK-O180-S    | 26.8x26.8cm | LED     | 40-200rpm   | 3.1Kg              | p.120 |
| Linear Shaker  |  | SK-L330-Pro  | 32x32cm     | LCD     | 100-350rpm  | 7.5Kg              | p.121 |
|                |  | SK-L180-Pro  | 25x24.5cm   | LCD     | 100-350rpm  | 2.5Kg              | p.121 |
| Rocking Shaker |  | SK-R330-Pro  | 30x28.5cm   | LCD     | 10-70rpm    | 10Kg               | p.122 |
| 3D Shaker      |  | SK-D3309-Pro | 30x28.5cm   | LCD     | 10-70rpm    | 5Kg                | p.123 |

# MX-S

## Variable speed Vortex Mixer

### Features

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



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

for <Ø30mm tubes and small



| Specifications                  | MX-S<br>(Adjustable speed) |
|---------------------------------|----------------------------|
| Voltage                         | 100–120V/200–240V,50/60Hz  |
| Power                           | 60W                        |
| Mixing motion                   | Orbital                    |
| Orbital diameter                | 4mm                        |
| Motor type                      | Shaded pole motor          |
| Motor rating input              | 58W                        |
| Motor rating output             | 10W                        |
| Speed range                     | 0–3000rpm                  |
| Speed display                   | Scale                      |
| Run type                        | Touch operation/Continuous |
| Dimension[W × H × D]            | 127 × 130 × 160mm          |
| Weight                          | 3.5kg                      |
| Permissible ambient temperature | 5–40℃                      |
| Permissible relative humidity   | 80%RH                      |
| Protection class                | IP21                       |



# MX-F

## Fixed speed Vortex Mixer

### Applications

Vortex mixers are ideal for mixing liquid components in tubes, resuspension of cells, using an eccentric mechanism. They are widely used in clinical labs performing virus diagnostic tests and in biological & chemical analysis applications. virus diagnostic tests. It is perfect for mixing high-viscosity materials, such as waxes and slurries; to mix battery slurries, paints, pharmaceuticals and more.



Wide range of accessories

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

for <Ø30mm tubes and small



| Specifications                  | MX-F<br>(Fixed speed)      |
|---------------------------------|----------------------------|
| Voltage                         | 100~120V/200~240V,50/60Hz  |
| Power                           | 60W                        |
| Mixing motion                   | Orbital                    |
| Orbital diameter                | 4mm                        |
| Motor type                      | Shaded pole motor          |
| Motor rating input              | 58W                        |
| Motor rating output             | 10W                        |
| Speed range                     | 3000rpm                    |
| Speed display                   | -                          |
| Run type                        | Touch operation/Continuous |
| Dimension[W × H × D]            | 127 × 130 × 160mm          |
| Weight                          | 3.5kg                      |
| Permissible ambient temperature | 5~40℃                      |
| Permissible relative humidity   | 80%RH                      |
| Protection class                | IP21                       |



# MX-E

## Economic Vortex Mixer



## Features

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

## Applications

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

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



### VT1.2 Tube holding rod

Cat. No.18900044

used with tube adapters



### VT1.3 Universal top plate

Cat. No.18900035

Ø 100mm



### VT1.3.1 tube adapter

Cat. No.18900020

for 48 holes test tubes, Ø6mm ( 1mL )



### VT1.3.2 tube adapter

Cat. No.18900021

for 15 holes test tubes, Ø10mm ( 1.5–2mL )



### VT1.3.3 tube adapter

Cat. No.18900022

for 16 holes test tubes, Ø12mm ( 5mL )



### VT1.3.4 tube adapter

Cat. No.18900023

for 8 holes test tubes, Ø16mm ( 10mL )



### VT1.3.5 tube adapter

Cat. No.18900024

for 8 holes test tubes, Ø20mm ( 10–15mL )



### VT1.3.6 Platform pad

Cat. No.18900043

for <Ø99mm tubes and small vessels



### VT1.3.7 vacuum chuck

Cat. No.18900158

made of rubber



## Application of accessories

| Accessories     | Adjustable speed model<br>(0–2500rpm) |                                 |
|-----------------|---------------------------------------|---------------------------------|
|                 | Touch mode<br>(High speed area)       | Touch mode<br>(High 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                               |



# MX-C

## Cell Disruptor

| Specifications   | MX-C                                                                                              |
|------------------|---------------------------------------------------------------------------------------------------|
| Functions        | Disrupts cells, yeast, bacteria, algae, fungi, etc.to prepare cell lysates for further processing |
| Mixing motion    | High-speed circumferential vortex and oscillation function                                        |
| Orbital diameter | 4mm                                                                                               |
| Speed range      | 0-3000rpm ( Adjustable )                                                                          |
| Speed display    | Scale                                                                                             |
| Capacity         | 8 × 2mL                                                                                           |
| Voltage          | 200-240V/ 100-120V, 50/60 Hz, 60W                                                                 |
| Dimension        | 127X130X160mm                                                                                     |
| Weight           | 3.5kg                                                                                             |



## Features

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

## Applications

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

# MX-M

## Microplate Mixer

### Features

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



### Applications

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



Brushless DC motor



Wide range of accessories

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

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

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

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

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

| PS1.2 Microplate clamp | Cat. No.18900042                                                                    |
|------------------------|-------------------------------------------------------------------------------------|
|                        |  |

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

| MXM-116                  | Cat. No.18900079                                                                      |
|--------------------------|---------------------------------------------------------------------------------------|
| Double microplate clamps |  |

| Specifications                               | MX-M                                                         |
|----------------------------------------------|--------------------------------------------------------------|
| Shaking movement                             | Orbital                                                      |
| Orbital diameter                             | 4.5mm                                                        |
| Max. shaking weight (with accessory)         | 0.5kg                                                        |
| Motor type                                   | Brushless DC motor                                           |
| Motor rating input                           | 18W                                                          |
| Motor rating output                          | 10W                                                          |
| Speed range                                  | Single microplate: 0–1500rpm<br>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                                                         |



# MX-RD-Pro

## LCD Digital Tube Rotator

### Features

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

### Applications

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



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

# MX-RL-Pro

## LCD Digital Tube Rotator, Horizontal

### Features

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

### Applications

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



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

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

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

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

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

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

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

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

4pcs in a group  
use with disk accessories

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

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

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

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

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

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

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

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

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

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

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

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



# MX-RD-E

**Effective affordable mixing**

## Features

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

## Applications

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



### Plastic Clips

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



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

# MX-RL-E

## Economical Rotator



## Features

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

## Applications

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

### Plastic Clips

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



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

# Laboratory Deck Rocking Rotator Mixer

## SK-R30S-E

Short Deck Rocking Rotator

## SK-R30L-E

Long Deck Rocking Rotator

## SK-R30D-E

Long Deck Double Layer Rocking Rotator



## Applications

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

## Features

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

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

## Accessories Information



Cat.No.18202835

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



Cat.No.18202846

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



Cat.No.18202852

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



Cat.No.18202853

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

# MX-T6-Pro

## LCD Digital Tube Roller

### Features

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



LCD display



Timer



# MX-T6-S

## Standard tube roller

### Features

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

### Applications

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

| Specifications                               | MX-T6-Pro           | MX-T6-S             |
|----------------------------------------------|---------------------|---------------------|
| Amplitude                                    | 24mm                | 24mm                |
| Motor type                                   | DC motor            | DC motor            |
| Rocking motion                               | Rocking and rolling | Rocking and rolling |
| Max. load capacity                           | 4kg                 | 4kg                 |
| Number of rollers                            | 6                   | 6                   |
| Roller size[length]                          | 280mm               | 280mm               |
| Speed range                                  | 10 -70rpm           | 0-70rpm             |
| Speed display                                | LCD                 | Scale               |
| Timer                                        | Yes                 | -                   |
| Timer display                                | LCD                 | -                   |
| Time setting range                           | 1-1199min           | -                   |
| Operation mode                               | Continuous/timer    | Continuous/timer    |
| Voltage                                      | 100-240V,50/60Hz    | 100-240V,50/60Hz    |
| Power                                        | 30W                 | 25W                 |
| Dimension [D × W × H]                        | 450 × 260 × 120mm   | 450 × 260 × 120mm   |
| Weight                                       | 5.1kg               | 4.5kg               |
| Permissible ambient temperature and humidity | 5-40℃,80%RH         | 5-40℃,80%RH         |
| Protection class                             | IP21                | IP21                |

# SK-0330-Pro SK-0180-Pro

## LCD Digital Orbital Shaker

## Features

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

## Applications

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



**SK-O330-Pro**



**SK-O180-Pro**



| Specifications                               | SK-O330-Pro        | SK-O180-Pro        |
|----------------------------------------------|--------------------|--------------------|
| Orbital diameter                             | 10mm               | 4mm                |
| Max. load capacity (with platform)           | 7.5kg              | 2.5kg              |
| Motor type                                   | Brushless DC motor | Brushless DC motor |
| Motor input power                            | 28W                | 28W                |
| Motor output power                           | 15W                | 15W                |
| Speed range                                  | 100–500rpm         | 100–800rpm         |
| Speed display                                | LCD                | LCD                |
| Timer display                                | LCD                | LCD                |
| Time settings range                          | 1min–19h59min      | 1min–19h59min      |
| Voltage                                      | 100–240V,50/60Hz   | 100–240V,50/60Hz   |
| Power                                        | 30W                | 30W                |
| Weight                                       | 13.5kg             | 8.1kg              |
| Permissible ambient temperature and humidity | 5–40°C,80%RH       | 5–40°C,80%RH       |
| Dimension[W × D × H]                         | 370 × 420 × 100mm  | 300 × 340 × 100mm  |
| Protection class                             | IP21               | IP21               |
| Data connector                               | RS232              | RS232              |

## SK-0330-M

### Fixed Top LCD Digital Orbital Shaker



## Features

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

## Applications

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

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

## SK-0180-S

### LED Digital Orbital Shaker



Timer



Wide range of accessories

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

# SK-L330-Pro

# SK-L180-Pro

## LCD Digital Linear Shaker

## Features

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

## Applications

Suitable for mixing in culture dishes, flasks and beakers. Ideal for aeration and extraction applications. It can be used in environmental chambers and CO<sub>2</sub> incubators.



**SK-L330-Pro**



**SK-L180-Pro**

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



## SK-R330-Pro

### LCD Digital Rocking Shaker

## Features

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

## Applications

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

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

# SK-D3309-Pro

## LCD Digital 3D Shaker

## Features

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



## Applications

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



Timer



Wide range of accessories

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



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

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

# Spectrophotometer

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

## Features

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



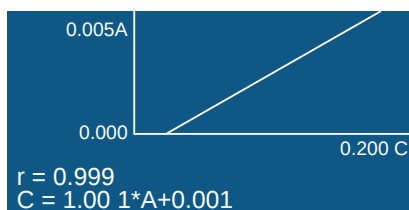
## Applications

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

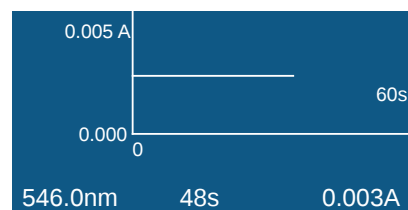
Basic Mode

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

Quantitative



Kinetics





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





**Cat. No.** 18900337

Micro Cell holder



**Cat. No.** 18900340

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



**Cat. No.** 18900331

4-cell holder for 10mm 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.** 18900334

cylindrical cell holder(ø16mm)



**Cat. No.** 18900339

solid sample holder  
(ø1.5-3mmø1 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)