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DLAB



CATALOGUE

www.dlabsci.com

2018.4

2018



THERMO CONTROL



CENTRIFUGES



DISTILLING & MIXING

LIQUID HANDLING





Company Profile

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

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

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

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

"DLAB is always your accessible solution"



Contents

03

Liquid Handling

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



22

Thermal Control

- Thermal Cyclers / 23
- Dry Bath / 25
- Thermal Mixers / 26
- Water Bath / 27
- Sterilizer / 28



30

Distilling & Mixing

- Rotary Evaporator / 31
- Magnetic Hotplate Stirrers / 35
- Hotplates / 43
- Magnetic Stirrers / 44
- Overhead Stirrers / 50
- Vortex Mixers / 53
- Microplate Mixers / 55
- Rotators / 56
- Tube Rollers / 59
- Shakers / 60



70

Centrifuges & Spectrophotometer

- Palm Micro Centrifuges / 71
- High Speed Micro-Centrifuges / 73
- Clinical Centrifuges / 82
- Spectrophotometers / 90



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

DLAB instruments are tested and conform to the following safety and EMC standards:

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

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

Liquid Handling



Electronic pipette

dPette⁺ Multifunction Electronic Pipette

dPette Simple Electric Pipette



Features

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

Specifications

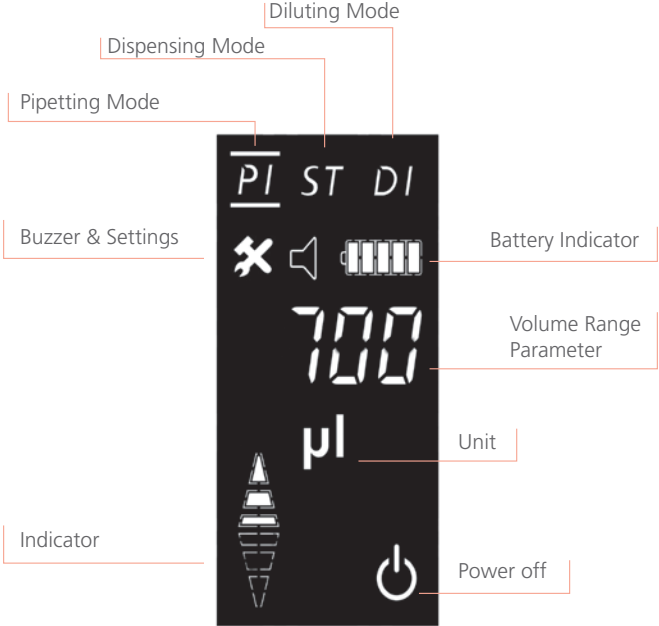
| Channels | Volume Range | Increment | Test Volume | Error limits in accordance to ISO8655-2 | | | |
|----------|--------------|-----------|-------------|---|-------|-----------------|------|
| | | | | accuracy error | | precision error | |
| | | | | μL | % | s.d.*μL | CV%* |
| 1 | 0.5-10 | 0.01 | 10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

* s.d. = Standard Deviation

*CV = Coefficient of Variation

Electronic pipette

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



Mechanical Pipettes



MicroPette plus

121°C
FULLY
Autoclavable

Features

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



MicroPette plus multi-channel

121°C
FULLY
Autoclavable

Features

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

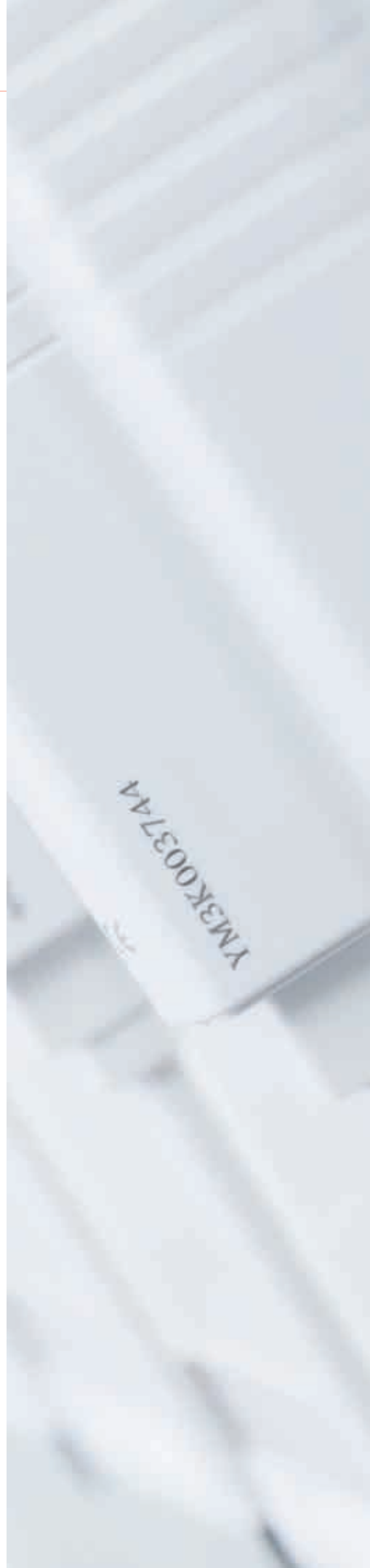




Fully autoclavable

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

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



Mechanical Pipettes

MicroPette

Features

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

121°C
HALF
Autoclavable



MicroPette multi-channel

121°C
HALF
Autoclavable

Features

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





8 channels



Calibration

All DLAB pipettes have been quality tested according to ISO8655-2:2002 and are supplied with individual calibration certificates. The quality control includes gravimetric testing of each pipette with distilled water at 22°C
Our website www.dlabsci.com allows users to access DLAB online calibration software and achieve accurate and timely calibration.

Online calibration software is FREE to Dlab pipette users

Mechanical Pipette Volume Selection

Specifications

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

Single-channel Adjustable Volume Pipettes

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

8-channel Adjustable Volume Pipettes

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

12-channel Adjustable Volume Pipettes

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

Fixed Volume Pipettes

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

Pipette Filler

Levo Plus Pipette Filler

Features

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

Large LCD display showing low battery warning and speed settings

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



Aspiration and dispensing operation buttons

Operating button for motor and gravity dispensing

Hydrophobic filter 0.45µm

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



Specifications

| | |
|----------------------|--|
| Aspiration Speed | 25mL<5s (8 shift) |
| Dispensing Speed | Motor (8 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

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

Features

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



Specifications

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

Pipette Controllers & Pumps

Levo Pipette Controller

Features

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



Compress the suction bellows before attaching the pipette

Button to expel residual liquid when using blow-out pipette

Aspiration and dispensing comfortably achieved with a sensitive lever

Levo E Pipette Pump

Features

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



3µm replaceable Hydrophobic filter

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



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



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

StepMate Stepper

Optimized for smooth dispensing of even the smallest volumes

Features

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

Five easy-to-select settings control dispensing volume

By pushing the slide upwards, the syringe is filled up

How to select dispensing volume

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

Tip volume

Dispensing Volume

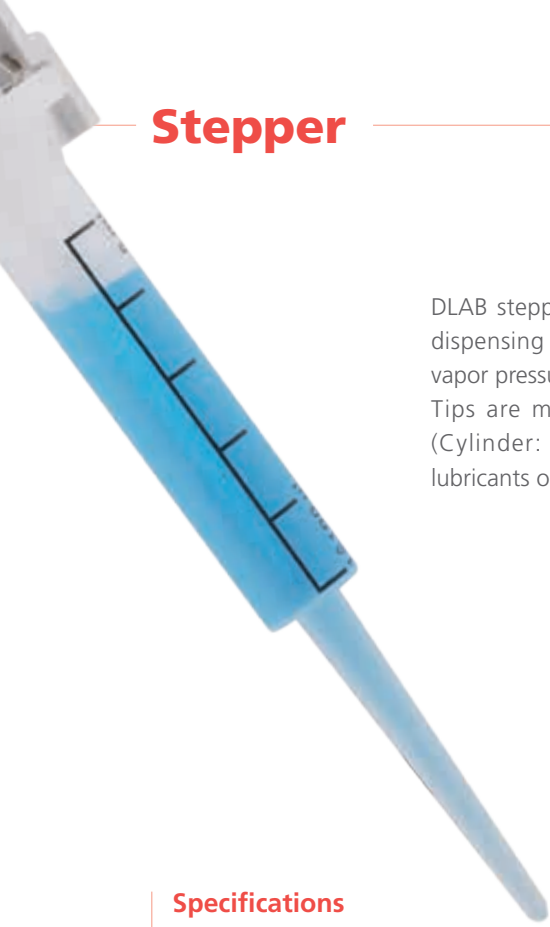
| Tips \ Sel | 1 | 2 | 3 | 4 | 5 |
|------------|--------|--------|--------|--------|--------|
| 0.05ml | 1µl | 2µl | 3µl | 4µl | 5µl |
| 0.50ml | 10µl | 20µl | 30µl | 40µl | 50µl |
| 1.25ml | 25µl | 50µl | 75µl | 100µl | 125µl |
| 2.50ml | 50µl | 100µl | 150µl | 200µl | 250µl |
| 5.00ml | 100µl | 200µl | 300µl | 400µl | 500µl |
| 12.50ml | 250µl | 500µl | 750µl | 1000µl | 1250µl |
| 25.00ml | 500µl | 1000µl | 1500µl | 2000µl | 2500µl |
| 50.00ml | 1000µl | 2000µl | 3000µl | 4000µl | 5000µl |
| Steps | 48 | 23 | 15 | 11 | 8 |

The stop lever secures the syringe

Steps



Stepper



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

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



Specifications

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

| Dial setting | | 1 | 2 | 3 | 4 | 5 | | | | |
|-----------------|---------------------|--------------------|------|------|------|------|-------|-------|--|--|
| Number of steps | | 48 | 23 | 15 | 11 | 8 | | | | |
| Cat. No. | Syringe volume (mL) | Sample volume (μL) | | | | | A % | P % | Description | |
| 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 Titrator

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

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



Features

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

Specifications

| | |
|-----------------------------|---|
| Volume Range | 0.01mL-99.99mL, Max piston lift is 10mL, resolution is 10 μ L |
| Volume Accuracy | R=0.2% CV=0.07% |
| Velocity | 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 |

Electronic Bottle-Top Dispenser

dFlow

Electronic Bottle-Top Dispenser

Features

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



Specifications

| | |
|-----------------------------|--|
| Volume Range | 0.01-99.9mL, Max piston lift is 10mL, resolution is 100µL |
| Volume Accuracy | Dispenser: R = 10mL ±30µL; CV = 10ml ±10µL Stepper: R = 1mL ±6µL; CV = 1ML ±9µL |
| Operating Temperature Range | 10°C-30°C |
| Quality Control | DIN EN ISO 8655 |
| Control Type | External control |

Bottle-Top Dispensers

DispensMate Bottle-Top Dispenser

Easy-to-use volume adjustment

Smooth piston design provides effortless dispensing

Adapters allow fitting to standard reagent bottles

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

Filling tube adjusts easily for different size bottles



Features

- Excellent chemical resistance, components are made of PTFE, FEP, BSG, PP
- Fully autoclavable at 121°C
- Four ranges of bottle-top dispenser covering a volume range from 0.5mL to 50mL
- Easy for cleaning and maintenance
- The optional flexible discharge tube with safety handle permits fast and precise dispensing
- Vapor pressure max. 500mbar, viscosity max. 500mm²/s,
- temperature max. 40°C, density max. 2.2g/cm³
- Dispensmate is supplied with S40, GL32, GL38, GL25, GL28 sized adapters

Specifications

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

Accessories

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

Vacuum Aspiration System



SafeVac is designed for laboratory waste recovery and separation of liquid and solid. It can be widely used in cell culture, DNA extraction, microplate waste removal, and any other liquid separation or recovery.

SAFEVAC Vacuum Aspiration Systems

Features

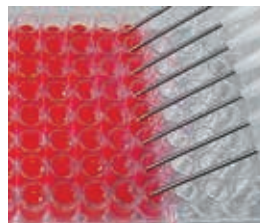
- Vacuum power can be set to different levels to achieve 1mL/S to 15mL/S aspiration speed
- Sensitive level sensor to prevent liquid overflow during operation
- Fully autoclavable waste collection bottle, tubing and handle
- Lid, tubing and handle are easy for disassembling, cleaning and autoclaving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

Specifications

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

Hydrophobic filter
0.45µm
Φ6mm

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



Dispenser & Diluter System



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

DL-D50-Pro Dispenser & Diluter Systems

Features

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

Specifications

| | |
|----------------------------------|--|
| Accuracy | $\pm 1\%$ |
| Precision | $\pm 0.2\%$ |
| Flow Rate | 0.003-6000 μ L/s (depending on the syringe that is selected) |
| Compatible Syringes | 250, 500 μ L, 1, 2.5, 5, 10, 25mL |
| Fluid Path | Borosilicate, PTFE, CTFE |
| Voltage | 100-240VAC |
| Frequency | 50/60Hz |
| Dimension[WxDxH] | 190x180x350mm |
| Weight | 4.5kg |
| Permissible relative temperature | 5-40 $^{\circ}$ C |
| Permissible relative humidity | 80%RH |

Accessories

| Cat. No. | Description |
|----------|---------------|
| 17900094 | Syringe,250ul |
| 17900095 | Syringe,500uL |
| 17900096 | Syringe,1mL |
| 17900097 | Syringe,2.5mL |
| 17900098 | Syringe,5mL |
| 17900099 | Syringe,10mL |
| 17900100 | Syringe,25mL |



Thermal Control



TC1000-G Thermal Cycler Gradient

TC1000-S Thermal Cycler Standard

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

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

Features

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



Thermal Control



Excellent temperature uniformity



Gradient function



LCD touch panel



Excellent temperature accuracy



Specifications

| | TC1000-G | TC1000-S |
|--|---|--|
| Sample Capacity | 96X0.2mL PCR tube, 8X12 PCR plate or 96 well plate | 96X0.2mL PCR tube, 8X12 PCR plate or 96 well plate |
| Heating Temperature Range | 4-105°C | 4-105°C |
| Lid Temperature Range | 30-110°C | 30-110°C |
| Temperature Display Accuracy | ±0.1°C | ±0.1°C |
| Temperature Control Accuracy [at 55°C] | ±0.3°C | ±0.3°C |
| Temperature uniformity[at 55°C] | <0.3°C | <0.3°C |
| Max. Heating/Cooling Rate | 3°C/Sec | 3°C/Sec |
| Gradient Temperature Setting Range | 30-99°C | - |
| Gradient Range | 1-42°C | - |
| Adapter block material | aluminum | aluminum |
| Display | 7" LCD 800x480 | 7" LCD 800x480 |
| Input | Touch panel | Touch panel |
| User defined file system | Max. 30 segments 99 cycles max. 16 folder and 16 files each folder | Max. 30 segments 99 cycle max. 16 folder and 16 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 |



HB120-S

Dry bath

Features

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

Specifications

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



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



Adapter block selection



Overheating protection



Timer



LED display



Thermo Mix

HC110-Pro

Dry bath with cooling

Features

- Precise temperature control for heating and cooling
- Flexible adapter selection
- Programmable
- Compatible with various tubes



Excellent temperature accuracy



Programmable



Adapter self recognition



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

Specifications

| | HC110-Pro |
|---|--|
| Functions | Heating & cooling |
| Temperature range | Heating: room temp. - 110°C Cooling: room temp. - below room temp. 25°C |
| Temperature control accuracy[@20-45°C] | ± 0.5°C |
| Temperature uniformity[@20-45°C] | Max ± 0.5°C |
| Max. heating rate | 5.5°C/min |
| Max. cooling rate | 2.5°C/min (100°C-room temp.) 0.5°C/min (below room temp.) |
| Screen | TFT |
| Program | 9 |
| Overheating protection | 150°C |
| Adapter block material | aluminum |
| Voltage, Frequency | 100-240V,50/60Hz |
| Power | 200W |
| Dimension[WxDxH] (without the heating block) | 200x235x120mm |
| Weight | 7.3kg |

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

HCM100-Pro

Thermo Mix

HM100-Pro

Thermo Mix with heating

Features

- Excellent mixing result
- Stable and wide range of speed adjustment
- Precise temperature control for heating and cooling
- Flexible adapter selection
- Programmable
- Compatible with various tubes



Blocks self recognition



Specifications

| | HCM100-Pro | HM100-Pro |
|---|--|------------------------------|
| Functions | Heating, cooling & mixing | Heating & mixing |
| Temperature range | Heating: room temp. - 100°C Cooling: room temp. - below room temp. 15°C | Heating: room temp. - 100 °C |
| Temperature control accuracy[@ 20–45°C] | ± 0.5°C | ± 0.5°C |
| Temperature uniformity[@ 20–45°C] | Max. ± 0.5°C | Max. 0.5 °C |
| Max. heating rate | 5.5°C/min | 5.5°C/min |
| Max. cooling rate | 5°C/min(100°C-room temp.) 0.5°C/min(below room temp.) | - |
| Mixing frequency | 200-1500rpm | 200-1500rpm |
| Mixing orbit | 3mm | 3mm |
| Screen | TFT | TFT |
| Program | 9 | 9 |
| Overheating protection | 150°C | 150°C |
| Adapter block material | aluminum | aluminum |
| Voltage, Frequency | 100–240V, 50Hz/60Hz | 100-240V, 50Hz/60Hz |
| Power | 200W | 200W |
| Dimension[WxDxH] (without the heating block) | 200x235x120mm | 200x235x120mm |
| Weight | 7.3kg | 7.3kg |

Water Bath



Features

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

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

DWB20-P/DWB20-S Water Bath



Specifications

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

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

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

ST800-S / ST800-E Infrared Sterilizer

Features

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



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

Distilling & Mixing



RE100-Pro Digital Rotary Evaporator

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



Features:

- Digital display of both rotation speed and heating temperature allows for optimal control of all distillation processes
- Automatic motor lift releases the evaporating flask to a safe position in case of power failure
- 5L heating bath with wide temperature range from room temp. to 180°C)
- Overheating protection temperature at 220°C
- Speed range from 20 to 280rpm, and interval operation in clockwise and anticlockwise directions for drying process
- Patented condenser (cooling surface 1700cm²) with excellent cooling effect
- Ejection mechanism ensures easy removal of evaporating flask
- Patented double spring sealing ring which is made of PTFE provides an excellent sealing performance
- Remote function provides PC control and data transmission



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 | ±1°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 50/60 Hz |
| Power | 1400 W |

Rotary Evaporator | Accessories

Condenser



Vertical

| Cat. No. | Glassware type | Volume | Cooling surface |
|----------|--|--------|---------------------|
| 18900165 | Evaporating flask(NS29/32) Receiving flask(KS35/20) | 1000mL | 1500cm ² |
| 18900173 | Evaporating flask(NS24/40) Receiving flask(KS35/20) | 1000mL | 1500cm ² |
| 18900166 | (COATED)Evaporatingflask(NS29/32) Receiving flask (KS35/20) | 1000mL | 1500cm ² |
| 18900174 | (COATED)Evaporatingflask(NS24/40) Receiving flask (KS35/20) | 1000mL | 1500cm ² |



Diagonal

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



Heating Bath

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



Glassware



Evaporating flask

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



Receiving flask

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



Distilling spider with 5 flasks(without flask)

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



Foam brake

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



Vapor tube

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

Connector

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

Rotary Evaporator | Accessories

Additional

DVR480 Vacuum controller

Specification

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

Cat. No.

18900361

Voltage

Vacuum controller
 100-240V, 50/60Hz



C410 Chemistry-design diaphragm pump

Specification

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



Seals and other accessories

Cat. No.

Description

18202027

PTFE vacuum seal



18900362

Ultra resistant FFKM seal for applications with highly abrasive solutions

18900190

Evaporation flask clip(red)
 CS002440



18900188

Evaporation flask clip(green)
 CS002942



MZ 1C Chemistry-design diaphragm pump

Specification

Number of heads / stages:2 / 2
 Max. pumping speed:0.75 m³/h
 Ultimate vacuum (abs.):12mbar
 Nozzle Size:DN 8-10 mm
 Rated motor power:0.06kW
 Rated motor speed:1500/1800 rpm
 Noise level:45dB
 ATEX:II 3G IIC T3 X Internal Atm. only

Cat. No.

Voltage

18900231

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

18900232

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

18900233

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

18900234

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



Vacuum regulator/moisture trap

Cat. No.

Description

18900186

In use of control small volume, installed in a vacuum between DVR380 and vacuum system.
 Material: PVDF, PTFE, ABS, Borosilicate Glass, Stainless Steel



Magnetic Hotplate Stirrers

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

MS7-H550-Pro LCD Digital Magnetic Hotplate Stirrer

Features

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



MS7-H550-S LED Magnetic Hotplate Stirrer

Features

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





Overheating protection



External sensor



Wide range of accessories



Chemical resistance



Specifications

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

Magnetic Hotplate Stirrers

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

MS-H-Pro^T LCD Digital Magnetic Hotplate Stirrer with Timer



MS-H-Pro⁺ LCD Digital Magnetic Hotplate Stirrer



Features

- Brushless DC motor is maintenance free and explosion-proof
- Digital temperature control with max. temperature at 340°C
- Digital speed control with max. speed up to 1500rpm
- Max. stirring quantity of H₂O at 20L
- Safety circuits provide overheating protection
- The "HOT" warning will flash if the plate temperature is above 50°C even when the hotplate is turned off
- Wide range timer function from 1min to 99h59min(MS-H-ProT only)
- High-resolution LCD display shows actual temperatures and speed (MS-H-ProT displays the time also)
- External temperature control is possible by connecting the temperature sensor(PT 1000) with accuracy at ±0.2°C
- Stainless steel work plate with ceramic coating provides good chemical-resistant performance
- Remote function provides PC control and data transmission
- A wide variety of accessories are available

MS-H-S Magnetic Hotplate Stirrer

Features

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



Magnetic Hotplate Stirrers



External sensor



Brushless DC motor



Wide range of accessories



RS232 connector



Chemical resistance



Specifications

| | MS-H-PRO ⁺ | MS-H-PRO ^T | MS-H-S |
|--|------------------------------------|------------------------------------|------------------------------------|
| Work plate dimension | φ135mm(5 inch) | φ135mm(5 inch) | φ135mm(5 inch) |
| Work plate material | stainless steel cover with ceramic | stainless steel cover with ceramic | stainless steel cover with ceramic |
| Motor type | Brushless DC motor | Brushless DC motor | Brushless DC motor |
| Motor rating input | 18W | 18W | 18W |
| Motor rating output | 10W | 10W | 10W |
| Power | 550W | 550W | 530W |
| Heating output | 500W | 500W | 500W |
| Voltage | 100-120/200-240V 50/60Hz | 100-120/200-240V 50/60Hz | 100-120/200-240V 50/60Hz |
| Stirring positions | 1 | 1 | 1 |
| Max. stirring quantity[H ₂ O] | 20L | 20L | 20L |
| Max. magnetic bar[length] | 80mm | 80mm | 80mm |
| Speed range | 100-1500rpm resolution±1rpm | 100-1500rpm resolution±1rpm | 0-1500rpm resolution±1rpm |
| Speed display | LCD | LCD | Scale |
| Temperature display | LCD | LCD | Scale |
| Heating temperature range | Room temp.-340°C, increment 1°C | Room temp.-340°C, increment 1°C | Room temp.-340°C |
| Temperature control accuracy | ±1°C(<100°C) ±1%(>100°C) | ±1°C(<100°C) ±1%(>100°C) | - |
| Over temperature protection | 360°C | 360°C | 350°C |
| Temperature display accuracy | ±0.1°C | ±0.1°C | ±0.5°C |
| External temperature sensor | PT1000 (accuracy ±0.2) | PT1000 (accuracy ±0.2) | - |
| "Hot" warning | 50°C | 50°C | - |
| Timer function | - | 1min to 99h 59min | - |
| Data connector | RS232 | RS232 | - |
| Protection class | IP42 | IP42 | IP42 |
| Dimension[WxDxH] | 160x280x85mm | 160x280x85mm | 160x280x85mm |
| Weight | 2.8kg | 2.8kg | 2.8kg |
| Permissible ambient temperature and humidity | 5-40°C, 80%RH | 5-40°C, 80%RH | 5-40°C, 80%RH |

Magnetic Hotplate Stirrers

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

MS-H280-Pro LED Digital Magnetic Hotplate Stirrer

Features

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



External sensor



Wide range of accessories



Chemical resistance



LED display



Specifications

| | MS-H280-Pro |
|--|---|
| Work plate Dimension | $\phi 135\text{mm}(5\text{ inch})$ |
| Work plate material | stainless steel cover with ceramic |
| Motor type | Brushless DC motor |
| Motor rating input | 5W |
| Motor rating output | 3W |
| Power | 515W |
| Heating output | 500W |
| Voltage | 100-120/200-240V 50/60Hz |
| Stirring positions | 1 |
| Max. stirring quantity | 3L |
| Max. magnetic bar[length] | 50mm |
| Speed range | 200-1500rpm |
| Speed display | LED |
| Temperature display | LED |
| Speed display resolution | $\pm 1\text{rpm}$ |
| Heating temperature range | Room temp.-280, increment 1°C |
| Control accuracy of work plate | $\pm 1^{\circ}\text{C}(<100^{\circ}\text{C}) \pm 1\%(>100^{\circ}\text{C})$ |
| Overheating protection | 320°C |
| Temperature display accuracy | $\pm 1^{\circ}\text{C}$ |
| External temperature sensor | PT1000 (accuracy $\pm 0.5^{\circ}\text{C}$) |
| "Hot" warning | 50°C |
| Protection class | IP21 |
| Dimension[WxDxH] | 150x260x80mm |
| Weight | 1.8kg |
| Permissible ambient temperature and humidity | 5-40°C, 80%RH |

Magnetic Hotplate Stirrers

HP380-Pro

LCD Digital Hotplate

MS6-Pro

LCD Digital Magnetic Stirrer

MS-H380-Pro

LCD Digital Magnetic Hotplate Stirrer

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

Features:

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



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

MS-H-S10

10-Position Magnetic Hotplate Stirrer

Features

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



Skid resistance



Multiple position



Brushless DC motor

Specifications

| | MS-H-S10 |
|--|-------------------------------|
| Work plate dimension[W x D] | 180x450mm |
| Work plate material | Stainless steel with silicone |
| Motor type | Brushless DC motor |
| Motor rating input | 12W |
| Motor rating output | 4W |
| Power | 490W |
| Heating output | 470W |
| Voltage | 100-120/200-240V 50/60Hz |
| 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 |
| Overheating protection | 140°C |
| Protection class | IP42 |
| Dimension[WxDxH] | 182×622×65mm |
| Weight | 3.2kg |
| Permissible ambient temperature and humidity | 5-40°C, 80%RH |



Magnetic Hotplate Stirrers | Accessories



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

Magnetic Hotplate Stirrers | Accessories



Stirrer bars

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

Models

| | | |
|--|-------------------------------|---|
| MS7-H550-Pro MS7-H550-S MS-H-Pro ⁺ MS-H-Pro ^T MS-H-S MS-S | MS-H280-Pro MS-PA MS-PB | MS-H-S10 MS-M-S10 FlatSpin EcoStir |
|--|-------------------------------|---|

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

Hotplates

HP550-S

LED Hotplate

Features

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



Wide range of accessories



Chemical resistance



Overheating protection



"HOT" warning prevents burning



Specifications

| | HP550-S |
|--|-------------------------------------|
| Work plate dimension[WxD] | 184x184mm(7 inch) |
| Work plate material | Glass ceramic |
| Power | 1010W |
| Voltage Frequency | 100-120/200-240V,50/60Hz |
| Heating Power | 1000W |
| Heating position | 1 |
| Heating temperature range | Room temp.-550°C,increment 5°C |
| Control accuracy of work plate | $\pm 10^{\circ}\text{C}$ |
| Safety temperature | 580°C |
| Temperature display | LED |
| Temperature display accuracy | $\pm 1^{\circ}\text{C}$ |
| External temperature sensor | PT1000($\pm 0.5^{\circ}\text{C}$) |
| Heating warning | 50°C |
| Protection class | IP21 |
| Dimension[WxDxH] | 215x360x112mm |
| Weight | 4.5kg |
| Permissible ambient temperature and humidity | 5-40°C, 80%RH |

MS7-S 7" Square Magnetic Stirrer

Features

- Speed range of 0-1500rpm
- Max. stirring quantity of H₂O at 10L
- Ceramic work plate provides excellent chemical resistant performance



Chemical resistance



Strong magnetism

Specifications

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

MS-S Magnetic Stirrer

Features

- Maintenance free brushless DC motor
- Speed range of 0-1500 rpm
- Max. stirring quantity of H₂O at 20L
- Stainless steel work plate cover with ceramic material provides good chemical resistance performance



F100 protective cover

for non-hotplate model,
use with MS-S



| | MS7-S | MS-S |
|--|--------------------------|------------------------------------|
| Work plate dimension[WxD] | 184x184mm(7inch) | φ135mm(5 inch) |
| Work plate material | Glass ceramic | Stainless steel cover with ceramic |
| Motor type | Shaded pole motor | Brushless DC motor |
| Motor input power | 15W | 18W |
| Motor output power | 1.5W | 10W |
| Power | 30W | 30W |
| Voltage | 100-120/200-240V,50/60Hz | 100-240V,50/60Hz |
| Stirring positions | 1 | 1 |
| Max. stirring quantity[H ₂ O] | 10L | 20L |
| Max. magnetic bar[length] | 80mm | 80mm |
| Speed range | 0-1500rpm | 0-1500rpm |
| Speed display | Scale | Scale |
| Protection class | IP21 | IP42 |
| Dimension[WxDxH] | 215x360x112mm | 160x280x85mm |
| Weight | 3.8kg | 2.8kg |
| Permissible ambient temperature and humidity | 5-40°C, 80%RH | 5-40°C, 80%RH |

Magnetic Stirrers



MS-PA LED Digital Magnetic Stirrer

Features

- Digital speed control within the range of 100-1500rpm
- Max. stirring quantity of H₂O at 3L
- LED display shows speed
- Nylon+GF housing provides a good performance of chemical resistance

MS-PB Magnetic Stirrer

Features

- A wide range of 0-1500rpm
- Max. stirring quantity of H₂O at 3L
- Nylon+GF housing provides a good performance of chemical resistance



Chemical resistance



Strong magnetism



LED display



Specifications

| | MS-PA | MS-PB |
|--|--------------------------|--------------------------|
| Work plate dimension[WxD] | φ135(5 inch)mm | φ135(5 inch)mm |
| Work plate material | N ylon+GF | N ylon+GF |
| Motor type | DC motor | DC motor |
| 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 |
| Stirring positions | 1 | 1 |
| Max. stirring quantity[H ₂ O] | 3L | 3L |
| Max. magnetic bar[length] | 50mm | 50mm |
| Speed range | 100-1500rpm | 0-1500rpm |
| Speed display | LED | Scale |
| Protection class | IP42 | IP42 |
| Dimension[WxDxH] | 150×260×80mm | 150×260×80 mm |
| Weight | 1.8kg | 1.8kg |
| Permissible ambient temperature and humidity | 5-40°C, 80%RH | 5-40°C, 80%RH |

MS-M-S10 10-Position Magnetic Stirrer

Features

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



MS-M-S16 16-Position Magnetic Stirrer

Features

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



Skid resistance



Multiple position



Specifications

| | MS-M-S10 | MS-M-S16 |
|--|---------------------------------------|---------------------------------------|
| Work plate Dimension[WxD] | 180×450mm | 365×345mm |
| Work plate material | Stainless steel with silicone coating | Stainless steel with silicone coating |
| Motor type | Brushless DC motor | DC motor |
| Motor input power | 12W | 12W |
| Motor output power | 4W | 4W |
| Power | 20W | 20W |
| Voltage | 100-120/200-240V,50/60Hz | 100-120/200-240V,50/60Hz |
| Stirring positions | 10 | 16(4 channel) |
| Max. stirring quantity[H ₂ O] | 0.4LX10 | 0.4LX16 |
| Max. magnetic bar[length] | 40mm | 40mm |
| Speed range | 0-1100rpm | 0-1100rpm |
| Speed display | Scale | Scale |
| Protection class | IP21 | IP21 |
| Dimension[WxDxH] | 622×205×65mm | 500×380×65mm |
| Weight | 3.2kg | 6kg |
| Permissible ambient temperature and humidity | 5-40°C, 80%RH | 5-40°C, 80%RH |

Magnetic Stirrers

FlatSpin

Ultra-flat Compact Magnetic Stirrer

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

Features

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



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

EcoStir

Economical Magnetic Stirrer

Features

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

Specifications

| | FlatSpin | EcoStir |
|--|--------------------------|--------------------------|
| Work plate Dimension | φ90mm | φ120mm |
| Work plate material | PET | PET |
| Motor type | Motorless | Brushless DC motor |
| Motor output power | 3W | 1.2W |
| Power | 5W | 7.2W |
| Voltage | 100-120/200-240V,50/60Hz | 100-120/200-240V,50/60Hz |
| Stirring positions | 1 | 1 |
| Max. stirring quantity[H ₂ O] | 0.8L | 1.5L |
| Max. magnetic bar[length] | 40mm | 40mm |
| Speed range | 15-1500rpm | 300-2000rpm |
| Speed setting | button | scale |
| Protection class | IP65 | IP21 |
| Dimension [W x D x H] | 175x120x15mm | 150x145x50mm |
| Weight | 0.3kg | 0.3kg |
| Permissible ambient temperature and humidity | 5-40°C,80%RH | 5-40°C,80%RH |

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

MS-C-S1 Magnetic Stirrer for Cell Culture

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

Features

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



Design for low speed stirring



LED display



Programmable



Multi-mode selection

Double Sidearm Celstir Spinner Flask

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



| Cat.No. | Volume |
|----------|--------|
| 18900235 | 500mL |
| 18900236 | 3L |



Specifications

| | MS-C-S1 | MS-C-S4 |
|--|-----------------------------|------------------------------|
| Work plate dimension | φ105mm | φ105mm |
| Work plate material | Cast Aluminum | Cast Aluminum |
| Motor type | Stepper Motor | Stepper Motor |
| Motor output power | 15W | 15W |
| Power/Voltage | 100-120/200-240V,50/60Hz | 100-120/200-240V,50/60Hz |
| Stirring positions | 1 | 4(each point distance 190mm) |
| Max. stirring quantity[H ₂ O] | 3L | 3Lx4 |
| Max. magnetic bar[length] | 80mm | 80mm |
| Speed range | 5-200rpm (resolution ±1rpm) | 5-200rpm (resolution ±1rpm) |
| Speed display | LED | LED |
| Timer range | 0-49min59s | 0-49min59s |
| Data connector | RS232 | RS232 |
| Protection class | IP21 | IP21 |
| Dimension[WxDxH] | 205x250x90mm | 395x450x90mm |
| Weight | 2.5kg | 5.5kg |
| Permissible ambient temperature and humidity | 5-40°C, 80%RH | 5-40°C, 80%RH |



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

OS20-Pro OS40-Pro LCD Digital Overhead Stirrer

Features

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



LCD display



Torque display



Speed adjusts with change in viscosity



Wide range of accessories



Specifications

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

| | OS20-Pro | OS40-Pro |
|--|--------------------|--------------------|
| Max. stirring quantity[H ₂ O] | 20L | 40L |
| Motor type | brushless DC motor | brushless DC motor |
| Motor input power | 60W | 120W |
| Motor output power | 50W | 100W |
| Voltage | 100-240V, 50/60 Hz | 100-240V, 50/60 Hz |
| Power | 70W | 130W |
| Speed range | 50-2200rpm | 50-2200rpm |
| Speed display accuracy | ± 3 rpm | ± 3 rpm |
| Speed display | LCD | LCD |
| Torque display | LCD | LCD |
| Overload protection display | LED lights | LED lights |
| Max. torque | 40Ncm | 60Ncm |
| Viscosity max. | 10000mPas | 50000mPas |
| Chuck range diameter | 0.5-10mm | 0.5-10mm |
| Dimension[WxHxD] | 83x220x186mm | 83x 220x 186mm |
| Weight | 2.8kg | 2.8kg |
| Protection class | IP21 | IP21 |
| Permissible ambient temperature and humidity | 5-40°C, 80%RH | 5-40°C, 80%RH |
| Data connector | RS232 | RS232 |

OS20-S

OS40-S

LED Overhead Stirrer

Features

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



Explosion-proof



Wide range of accessories



Specifications

| | OS20-S | OS40-S |
|--|--------------------|--------------------|
| Max. stirring quantity(H ₂ O) | 20L | 40L |
| Motor type | brushless DC motor | brushless DC motor |
| Motor input power | 60W | 120W |
| Motor output power | 50W | 100W |
| Voltage | 100-240V, 50/60 Hz | 100-240V, 50/60 Hz |
| Power | 70W | 130W |
| Speed range | 50-2200rpm | 50-2200rpm |
| Speed display accuracy | ±3rpm | ±3rpm |
| Speed display | LED | LED |
| Overload protection display | LED lights | LED lights |
| Max. torque | 40Ncm | 60Ncm |
| Viscosity max. | 10000mPas | 50000mPas |
| Chuck range diameter | 0.5-10mm | 0.5-10mm |
| Dimension[WxHxD] | 83x220x186mm | 83x.220x186mm |
| Weight | 2.8kg | 2.8kg |
| Protection class | IP42 | IP42 |
| Permissible ambient temperature and humidity | 5-40°C, 80%RH | 5-40°C 80%RH |

Overhead Stirrers | Accessories

Universal plate stand

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

Cat. No.
18900258



Propeller stirrer

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

Cat. No.
18900071



Straight stirrer

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

Cat. No.
18900072



Paddle stirrer

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

Cat. No.
18900073



Centrifugal stirrer

shaft length 40cm
stirrer diameter 9cm
Material: 316L stainless steel
Application: Two-bladed stirrer whose blades open with increasing speed. perfect for stirring in round vessels with narrow necks. Medium to high speeds required.

Cat. No.
18900074



Propeller stirrer

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

Cat. No.
18900075



Straight stirrer

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

Cat. No.
18900076



Paddle stirrer

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

Cat. No.
18900077



Centrifugal stirrer

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

Cat. No.
18900078



Vortex Mixers



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



Wide range of accessories

MX-S Vortex Mixer

Features:

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

MX-F Vortex Mixer

Features:

- Touch operation or continuous mode
- Fixed Speed 2500rpm
- Used for various mixing applications with optional adapters
- Specially designed vacuum suction feet for body stability
- Robust aluminum-cast construction

VT1.1 Standard top (Default)

for \varnothing30mm tubes and small vessels

Cat. No. 18900034



Specifications

| | MX-S (Adjustable speed) | MX-F (Fixed speed) |
|---------------------------------|----------------------------|----------------------------|
| Voltage | 100-120V/200-240V,50/60Hz | 100-120V/200-240V,50/60Hz |
| Power | 60W | 60W |
| Mixing motion | Orbital | Orbital |
| Orbital diameter | 4mm | 4mm |
| Motor type | Shaded pole motor | Shaded pole motor |
| Motor rating input | 58W | 58W |
| Motor rating output | 10W | 10W |
| Speed range | 0-2500rpm | 2500rpm |
| Speed display | Scale | - |
| Run type | Touch operation/Continuous | Touch operation/Continuous |
| Dimension[WxHxD] | 127x130x160mm | 127x130x160mm |
| Weight | 3.5kg | 3.5kg |
| Permissible ambient temperature | 5-40°C | 5-40°C |
| Permissible relative humidity | 80%RH | 80%RH |
| Protection class | IP21 | IP21 |

Vortex Mixers | Accessories



VT1.2 Tube holding rod

used with tube adapters

Cat. No. 18900044

VT1.3 Universal top plate

Ø 100mm

Cat. No. 18900035



VT1.3.1 tube adapter

for 48 holes test tubes, Ø6mm

Cat. No. 18900020



VT1.3.2 tube adapter

for 15 holes test tubes, Ø10mm

Cat. No. 18900021



VT1.3.3 tube adapter

for 12 holes test tubes, Ø12mm

Cat. No. 18900022



VT1.3.4 tube adapter

for 8 holes test tubes, Ø16mm

Cat. No. 18900023



VT1.3.5 tube adapter

for 8 holes test tubes, Ø20mm

Cat. No. 18900024



VT1.3.6 Platform pad

for $\lt; \text{Ø}99\text{mm}$ tubes and small vessels

Cat. No. 18900043



Application of accessories

| Accessories | Adjustable speed model (0-2500rpm) | |
|-----------------|---------------------------------------|-------------------------------------|
| | Touch mode (High speed area) | Continuous mode (Low speed area) |
| VT1.1 | Y | Y |
| VT1.2 + VT1.3.1 | Y | |
| VT1.2 + VT1.3.2 | Y | |
| VT1.2 + VT1.3.3 | Y | |
| VT1.2 + VT1.3.4 | Y | |
| VT1.2 + VT1.3.5 | Y | |
| VT1.3 + VT1.3.6 | Y | |
| VT1.3 + VT1.3.1 | | Y |
| VT1.3 + VT1.3.2 | | Y |
| VT1.3 + VT1.3.3 | | Y |
| VT1.3 + VT1.3.4 | | Y |
| VT1.3 + VT1.3.5 | | Y |



VT1.3.7 vacuum chuck

made of rubber

Cat. No. 18900158



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

MX-M Microplate Mixers

Features:

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



PS1.1 Universal top plate

Used with tube adapters

Cat. No.18900067



VT1.3.1 tube adapter

for 48 holes test tubes, Ø6mm

Cat. No.18900020



VT1.3.2 tube adapter

for 15 holes test tubes, Ø10mm

Cat. No.18900021



VT1.3.3 tube adapter

for 12 holes test tubes, Ø12mm

Cat. No.18900022



VT1.3.4 tube adapter

for 8 holes test tubes, Ø16mm

Cat. No.18900023



VT1.3.5 tube adapter

for 8 holes test tubes, Ø20mm

Cat. No.18900024



Brushless DC motor

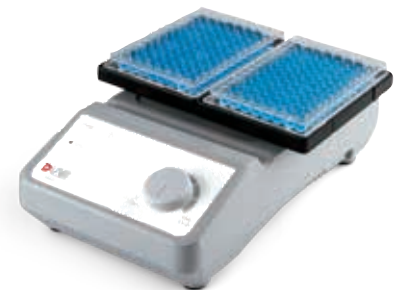


Wide range of accessories



PS1.2 Microplate clamp

Cat. No.18900042



MXM-116

Double microplate clamps

Cat. No.18900079

Specifications

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

MX-M

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

Rotators

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

MX-RD-Pro LCD Digital Rotator

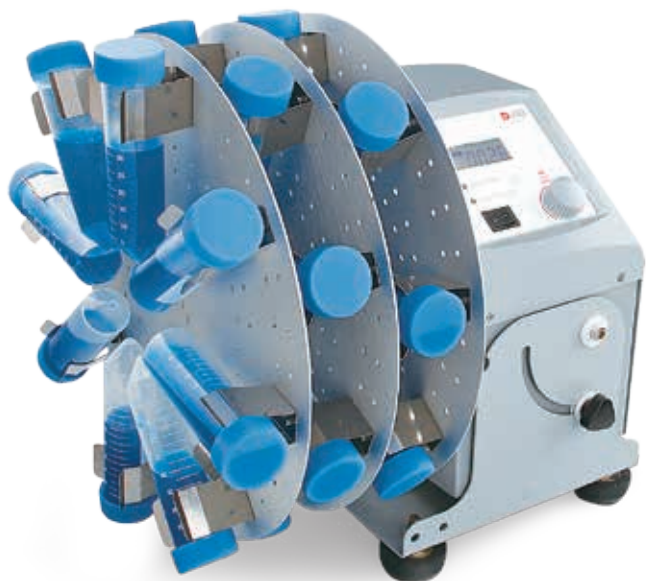
Features

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

MX-RD-E Economical Rotator

Features

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



LCD display



Adjustable angle



Wide range of accessories



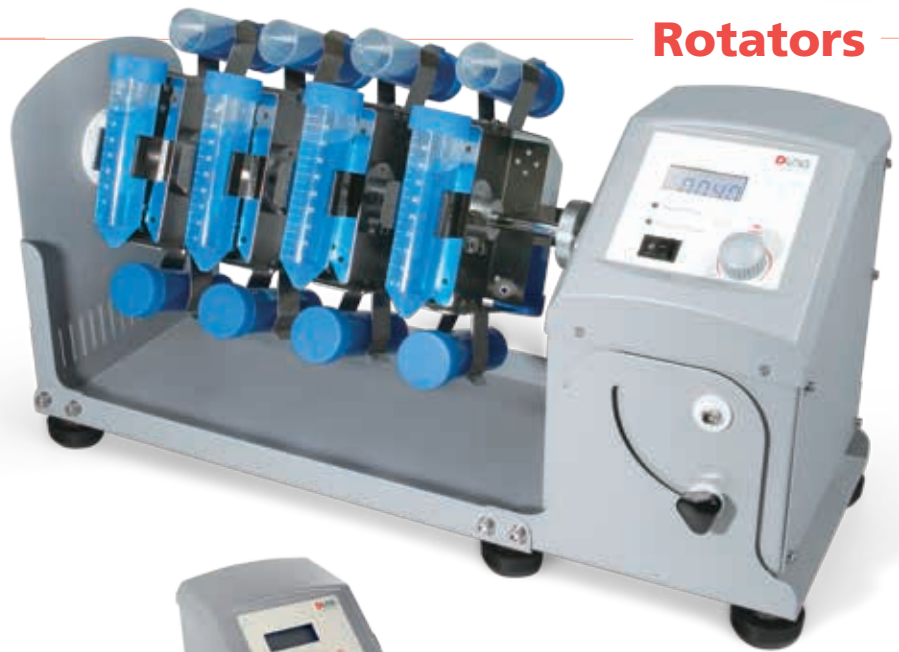
Specifications

| | MX-RD-Pro | MX-RD-E |
|--|--------------------|-------------------|
| Motor type | DC motor | DC motor |
| Tilt angle | 0-90° | - |
| Speed range | 10-70rpm | 0-80rpm |
| Speed display | LCD | Scale |
| Timer display | LCD | Scale |
| Timer | 1-1199min | - |
| Operation mode | Continuous / timer | Continuous |
| Voltage | 100-240V, 50/60Hz | 100-240V, 50/60Hz |
| Power | 40W | 20W |
| Dimension [DxWxH] | 280x210x300mm | 300x220x310mm |
| Permissible ambient temperature and humidity | 5-40°C, 80%RH | 5-40°C, 80%RH |
| Protection class | IP21 | IP21 |

MX-RL-Pro LCD Digital Rotator

Features

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



MX-RL-E Economical Rotator

Features

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



LCD display



Wide range of accessories



Specifications

| | MX-RL-Pro | MX-RL-E |
|--|-------------------|-------------------|
| Motor type | DC motor | DC motor |
| Speed range | 10-70rpm | 0-80rpm |
| Speed display | LCD | Scale |
| Timer display | LCD | Scale |
| Timer | 1-1199min | - |
| Operation mode | Continuous/timer | Continuous |
| Voltage | 100-240V, 50/60Hz | 100-240V, 50/60Hz |
| Power | 40W | 20W |
| Dimension[D×W×H] | 220×510×260mm | 150×530×190mm |
| Permissible ambient temperature and humidity | 5-40°C, 80%RH | 5-40°C, 80%RH |
| Protection class | IP21 | IP21 |

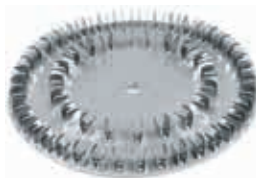


Disk Accessories Type-1

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

Cat. No.

18900160

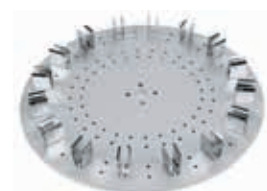


Disk Accessories Type-2

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

Cat. No.

18900161



Disk Accessories Type-3

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

Cat. No.

18900162



Disk support rods

4pcs in a group
use with disk accessories

Cat. No.

18900140



Rotisserie Accessory Type-1

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

Cat. No.

18900142



Rotisserie Accessory Type-2

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

Cat. No.

18900143



Rotisserie Accessory Type-3

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

Cat. No.

18900144



Rotisserie Accessory Type-4

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

Cat. No.

18900145



Rotisserie Accessory Type-5

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

Cat. No.

18900146



Rotisserie Accessory Type-6

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

Cat. No.

18900147



Plastic Clips

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





MX-T6-Pro LCD Digital Tube Roller

Features

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

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



LCD display



Timer

MX-T6-S Tube Roller

Features

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



Specifications

| | MX-T6-Pro | MX-T6-S |
|--|---------------------|---------------------|
| Amplitude | 24mm | 24mm |
| Motor type | DC motor | DC motor |
| Rocking motion | Rocking and rolling | Rocking and rolling |
| Max. load capacity | 4kg | 4kg |
| Number of rollers | 6 | 6 |
| Roller size[length] | 280mm | 280mm |
| Speed range | 10 -70rpm | 0-70rpm |
| Speed display | LCD | Scale |
| Timer | Yes | - |
| Timer display | LCD | - |
| Time setting range | 1-1199min | - |
| Operation mode | Continuous/timer | Continuous |
| Voltage | 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°C,80%RH | 5-40°C,80%RH |
| Protection class | IP21 | IP21 |

Shakers

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

SK-O330-Pro **SK-O180-Pro** LCD Digital Orbital Shaker

Features

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



SK-O180-S LED Digital Orbital Shaker

Features

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

SK-O180-E Economical Digital Orbital Shaker

Features

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



Shakers



Timer



Wide range of accessories



Specifications

| | SK-O330-Pro | SK-O180-Pro | SK-O180-S | SK-O180-E |
|--|--------------------|--------------------|------------------|------------------|
| Orbital diameter | 10mm | 4mm | 20mm | 20mm |
| Max. load capacity (with platform) | 7.5kg | 2.5kg | 3kg | 3kg |
| Motor type | Brushless DC motor | Brushless DC motor | DC motor | DC motor |
| Motor input power | 28W | 28W | 16W | 16W |
| Motor output power | 15W | 15W | 10W | 10W |
| Speed range | 100-500rpm | 100-800rpm | 40-200rpm | 0-200rpm |
| Speed display | LCD | LCD | LED | scale |
| Timer display | LCD | LCD | LED | - |
| Time settings range | 1min-19h59min | 1min-19h59min | 1min-19h59min | - |
| Voltage | 100-240V,50/60Hz | 100-240V,50/60Hz | 100-240V,50/60Hz | 100-240V,50/60Hz |
| Power | 30W | 30W | 20W | 20W |
| Weight | 13.5kg | 8.1kg | 3.1kg | 3.1kg |
| Permissible ambient temperature and humidity | 5-40°C, 80%RH | 5-40°C, 80%RH | 5-40°C,80%RH | 5-40°C, 80%RH |
| Dimension[WxDxH] | 370x420x100mm | 300x340x100mm | 270x330x110mm | 270x330x110mm |
| Protection class | IP21 | IP21 | IP21 | IP21 |
| Data connector | RS232 | RS232 | - | - |



Shakers

SK-L330-Pro SK-L180-Pro LCD Digital Linear Shaker

Features

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



SK-L180-S LED Digital Linear Shaker

Features

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



SK-L180-E Economical digital Linear Shaker

Features:

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





Timer



Wide range of accessories



Specifications

| | SK-L330-Pro | SK-L180-Pro | SK-L180-S | SK-L180-E |
|--|--------------------|--------------------|-------------------|-------------------|
| Amplitude | 10mm | 4mm | 20mm | 20mm |
| Max. load capacity (with platform) | 7.5kg | 2.5kg | 3kg | 3kg |
| Motor type | Brushless DC motor | Brushless DC motor | DC motor | DC motor |
| Motor input power | 28W | 28W | 16W | 16W |
| Motor output power | 15W | 15W | 10W | 10W |
| Speed range | 100-350rpm | 100-350rpm | 40-200rpm | 0-200rpm |
| Speed display | LCD | LCD | LED | scale |
| Timer display | LCD | LCD | LED | - |
| Time settings range | 1min-19h59min | 1min-19h59min | 1min-19h59min | - |
| Voltage | 100-240V, 50/60Hz | 100-240V, 50/60Hz | 100-240V, 50/60Hz | 100-240V, 50/60Hz |
| Power | 30W | 30W | 20W | 20W |
| Weight | 13.5kg | 8.1kg | 3.1kg | 3.1kg |
| Permissible ambient temperature and humidity | 5-40°C, 80%RH | 5-40°C, 80%RH | 5-40°C, 80%RH | 5-40°C, 80%RH |
| Dimension[WxDxH] | 370x420x100mm | 300x340x100mm | 270x330x110mm | 270x330x110mm |
| Protection class | IP21 | IP21 | IP21 | IP21 |
| Data connector | RS232 | RS232 | - | - |

Shakers

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

SK-R330-Pro LCD Digital Rocking Shaker

Features

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



SK-R1807-S LED Digital Rocking shaker

Features

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

SK-R1807-E Economical Rocking Shaker

Features:

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



Shakers



Timer



Wide range of accessories



Specifications

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





SK-D3309-Pro LCD Digital 3D Shaker

Features

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



SK-D1807-S LED Digital 3D shaker

Features

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



SK-D1807-E Economical 3D Shaker

Features

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

Shakers



Timer



Wide range of accessories



Specifications

| | SK-D3309-Pro | SK-D1807-S | SK-D1807-E |
|--|-------------------|-------------------|-------------------|
| Tilt angle | 9° | 7° | 7° |
| Max. load capacity (with platform) | 5kg | 3kg | 3kg |
| Motor type | DC motor | DC motor | DC motor |
| Motor input power | 40W | 16W | 16W |
| Motor output power | 24W | 10W | 10W |
| Speed range | 10-70rpm | 10-80rpm | 0-80rpm |
| Speed display | LCD | LED | scale |
| Timer display | LCD | LED | - |
| Time settings range | 1min-19h59min | 1min-19h59min | - |
| Voltage | 100-240V, 50/60Hz | 100-240V, 50/60Hz | 100-240V, 50/60Hz |
| Power | 50W | 20W | 20W |
| Weight | 9kg | 2.7kg | 2.7kg |
| Permissible ambient temperature and humidity | 5-40°C, 80%RH | 5-40°C, 80%RH | 5-40°C, 80%RH |
| Dimension[WxDxH] | 360×430×106mm | 270×330×130mm | 270×330×130mm |
| Protection class | IP21 | IP21 | IP21 |
| Data connector | - | - | - |

Shakers | Accessories



SK330.5



Cat. No.

Description

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

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

18900155

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



SK180.4



18900185

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



SK180.5



18900200

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



SK180.6



18900326

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



SK330.1



18900027

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



SK330.3



18900040

Lengthways roller attachment
Dimension[WxD]: 30x30cm



SK180.1



18900025

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



SK180.3



18900038

Lengthways roller attachment
Dimension[WxD]: 24x24cm



18900036

Bar for SK330.1 universal attachment



18900037

Bar for SK180.1 universal attachment



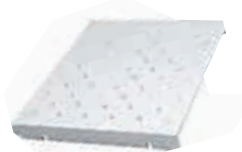
18900280

Connect sticks for double dishes shaker

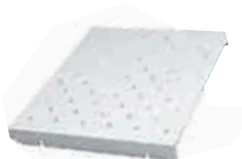




SK330.2



SK180.2



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

Centrifuges



D1008 series Palm Micro Centrifuge

Features

- Ideal for microfiltration and quick spin-downs
- Easy-to-use with dual start/stop function
- 7000rpm fixed speed(D1008)
- Compatible with 2mLx8 and PCR8x2 rotors
- Quiet running, noise level ≤ 45 dB
- Rotor change without tools
- Accelerates and brakes in seconds
- Available in two colors i.e., green, blue



Quiet operation



Vibration free



CE  FC

Specifications

| | D1008 |
|-------------------|--|
| Max. Speed | 7000rpm |
| Max. RCF | 2680xg |
| Rotor Capacity | 0.2/0.5/1.5/2.0mLx8; 0.2mLx16 PCR strips or 0.2mLx2 PCR 8 strips |
| Run Time | Continuous operation |
| Driving Motor | DC motor |
| Power | AC100-240V/50Hz/60Hz 20W |
| Noise Level | ≤ 45 dB |
| Dimension [DxWxH] | 160x170x122mm |
| Weight | 0.5kg |
| Certification | CE cTUVus FCC MCA |

Available rotors



Cat. No. 19400015

A08-2

Max. speed: 7000/5000rpm
Max. RCF: 5460/2680/1360×g
Rotor capacity: 2mL/1.5mL×8, 0.2mL×8, 0.5mL×8
Rotor material: High strength plastic
Available rotor adapters: SA02P2, SA05P2



Cat. No. 19400017

A02-PCR8

Max. speed: 10000/7000/5000rpm
Max. RCF: 5460/2680/1360×g
Rotor capacity: 0.2mL×16 PCR strips, 0.2 mL×2 PCR 8 strips
Rotor material: High strength plastic

Available adapters



Cat. No. 19400029

SA02P2

0.2mL rotor adapter
Used with A08-2 rotor
8pcs/pk



Cat. No. 19400026

SA05P2

0.5mL rotor adapter
Used with A08-2 rotor
8pcs/pk

High Speed Micro-Centrifuges

High Speed Micro Centrifuge

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

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

Precise control

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

Conforms to international safety standards and regulations

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

Ergonomic design

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



D2012 series

D2012 plus High Speed Mini Centrifuge



Brushless DC motor



LCD display



CE FCC

Specifications

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

Features

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

Available rotors



Cat. No. 19400010

A12-2P for D2012plus only

Max. speed: 15000rpm
Max. RCF: 15100xg
Rotor capacity: 2mL/1.5mL×12,0.2mL×12,0.5mL×12
Rotor material: High strength plastic
Available rotor adapters: A02P2,A05P2

Available adapters



Cat. No. 19500001

A02P2

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

Cat. No. 19500002

A05P2

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

D3024 High Speed Micro Centrifuge

Unique Features

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



D3024R High Speed Refrigerated Micro Centrifuge

Powerful cooling system for precise temperature control

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



D3024 series



Brushless DC motor



Wide range of rotors



CE FC



CE FC

Specifications

| | D3024 | D3024R |
|-------------------------------------|--|--|
| Max. Speed | 15000rpm(200-15000rpm), increment:10rpm | 15000rpm(200-15000rpm), increment:10rpm |
| Max. RCF | 21380xg, increment:10xg | 21380xg, increment: 10xg |
| Speed Accuracy | ±20 rpm | ±20 rpm |
| Temperature Range | - | -20°C-40°C |
| Rotor Capacity | 5mLx18, 5mL culture tubex12 0.2mL/0.5mL/1.5mL/ 2mLx24, 0.5mLx36, PCR8x4 | 5mLx18, 5mL culture tubex12 0.2mL/0.5mL/1.5mL/ 2mLx24, 0.5mLx36, PCR8x4 |
| Run Time | 30sec-99min/Continuous | 30sec-99min/Continuous |
| Motor | Brushless DC motor | Brushless DC motor |
| Safety Devices | Dual door interlock, Over-speed detection, Over-temperature detection, Automatic internal diagnosis | Dual door interlock, Over-speed detection, Over-temperature detection, Automatic internal diagnosis |
| Power | Single-phase, AC200V-400V, 50Hz/60Hz, 5A, AC100V-120V, 50Hz/60Hz, 8A 200W | Single-phase, AC200V-240V, 50Hz/60Hz, 10A, AC100V-120V, 50Hz/60Hz, 10A 400W |
| Acceleration /Braking time [Sec] | 25s ↑ 25s ↓ | 25s ↑ 25s ↓ |
| Dimension[WxDxH] | 280x364x266mm | 338x580x324mm |
| Weight | 12kg | 30kg |
| Certification | CE cTUVus FCC MCA | CE cTUVus FCC MCA |
| Advanced Features | Speed/RCF switch; Short-time run function; sound-alert function | Speed/RCF switch; Short-time run function; sound-alert function |
| Noise Level | ≦64dB | ≦56dB |





D3024 series

Rotor Features

Fully autoclavable

High strength aluminum alloy rotors are fully autoclavable, withstanding steam sterilizing at 121°C for 20 minutes, with unlimited service life.

Bio-safe

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

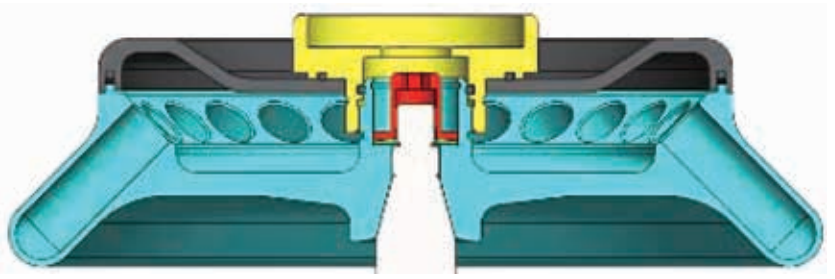
Explosion-proof

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

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

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

Three rubber seals fitted to achieve bio-safe condition



Seals within the aluminum alloy rotor



Available rotors



Cat. No. 19400006

AS24-2 for D3024 & D3024R

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



Cat. No. 19400032

AS12-V5 for D3024 & D3024R

Max. speed: 15000rpm
 Max. RCF: 21380×g
 Rotor capacity: 5mL×12(Eppendorf tube)
 Rotor material: Aluminum alloy
 Bio-safe(Bio sealing): Yes



Cat. No. 19400007

AS36-05 for D3024 & D3024R

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



Cat. No. 19400008

AS4-PCR8 for D3024 & D3024R

Max. speed: 15000rpm
 Max. RCF: 21380×g
 Rotor capacity: 0.2mL/PCR8×4
 Rotor material: Aluminum alloy
 Bio-safe(Bio sealing): Yes

D3024 series | Rotors and Adapters



Cat. No. 19400012

AS18-5

for D3024 & D3024R

Max. speed :15000rpm
Max. RCF:21380×g
Rotor capacity:5mL×18 (Round-Botton tube)
Rotor material:Aluminum alloy
Bio-safe(Bio sealing):Yes

Available adapters



Cat. No. 19500001

A02P2

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

Cat. No. 19500002

A05P2

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

Cat. No. 19500003

A02P05

0.2mL rotor adapter
Used with AS36-05 rotor
36pcs/pk



DM1424 series



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

DM1424 Hematocrit Centrifuge

Features:

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



CE  FC

Specifications

| | DM1424 |
|---------------------------|---|
| Speed Range | 200-14000rpm, increment: 10rpm |
| Max. RCF | 18620×g |
| Speed Accuracy | ±20 |
| Rotor Capacity | 2 type |
| Run Time | 30sec-99min/Continuous |
| Motor | Brushless DC motor |
| Display | LCD |
| Safety Devices | Door interlock, Overspeed detector; Over-temperature detector, Automatic internal diagnosis, Automatic rotor identification |
| Acceleration/Braking time | 30s ↑ 30s ↓ |
| Power | Single-phase, 200V-240V, 50Hz/60Hz, 5A; 100V-120V, 50Hz/60Hz, 5A 500W |
| Dimension[WxDxH] | 280×364×266mm |
| Weight | 10kg |
| Certification | CE cTUVus FCC MCA IVD |
| Advanced features | Speed/RCF switch; Short-time run function; sound-alert function |

Available rotors



Cat. No. 19400013

A24- 2P **DM1424**

Max. speed: 14000rpm
Max. RCF: 18620×g
Rotor capacity: 2mL/1.5mL×24,0.2mL×24,0.5mL×24
Rotor material: High strength plastic
Available rotor adapters: A02P2,A05P2,A10P15 & Mat



Cat. No. 19400046

AC24 **DM1424**

Max. speed: 12000rpm
Max. RCF: 13680×g
Rotor capacity: capillary tubes x24
Rotor material: High strength aluminum

Available adapters



Cat. No. 19500001

A02P2

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

Cat. No. 19500002

A05P2

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

Cat. No. 19500003

A02P05

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

Clinical Centrifuges

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

Conforms to international safety standards and regulations

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



Precise control

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

Ergonomic design

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



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

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

DM0412 Clinical Centrifuge

Features:

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

DM0412S Economical Clinical Centrifuge

Features:

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



DM0412 series



CE

Specifications

| | DM0412 | DM0412S |
|---------------------------|--|--|
| Speed Range | 300-4500rpm, increment: 100rpm | 300-4500rpm, increment:100rpm |
| Max. RCF | 2490xg | 2490xg |
| Speed accuracy | ±20rpm | ±100rpm |
| Rotor type | A12-10P, A6-50P | A12-10P |
| Run Time | 30sec-99min HOLD(Continuous operation) | 1sec-99min HOLD(Continuous operation) |
| Motor | Brushless DC motor | DC motor |
| Display | LCD | LED |
| Safety Devices | Door interlock,Overspeed detector; Automatic internal diagnosis | Door interlock,Over-speed detection |
| Acceleration/Braking time | A12-10P: 20s ↑ 13s ↓ A6-50P: 20s ↑ 20 s /90 s ↓ | 23s ↑ 23s ↓ |
| Power | Single-phase, 100V-240V,50Hz/60Hz, 3A 70W | Single-phase,200V-240V,50Hz/60Hz, 3A;100V-120V,50Hz/60Hz, 3A 70W |
| Dimension[WxDxH] | 301×354×217mm | 301×354×217mm |
| Weight | 6kg | 6kg |
| Certification | CE, UL, IVD | - |
| Advanced features | Speed/RCF switch;Short-time run function; sound-alert function | sound-alert function |



DM0412 series | Rotors and Adapters

Available rotors



Cat. No. 19200348

A12-10P for DM0412 & DM0412S











Max. speed: 4500rpm
Max. RCF: 2490×g
Rotor capacity: 8×15mL, 12×10mL
Rotor material: High strength plastic



Cat. No. 9034002125

A6-50P For DM0412(A6-50P)

Max. speed: 4000rpm
Max. RCF: 1800×g
Rotor capacity: 50ml×6, 15ml×6
Rotor material: High strength plastic

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

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



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

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

DM0636 Multi-Purpose Clinical Centrifuge

Features

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



Specifications

| | DM0636 |
|--------------------------------|---|
| Speed range | 300-6000rpm increment: 10rpm |
| Max. RCF | 4300xg |
| Speed accuracy | ±20rpm |
| Temperature Range | - |
| Max. Capacity | 100mLx4 |
| Run Time | 30sec-99mins/continuous |
| Motor | Brushless DC |
| Display | LCD |
| Program Memory | 9 |
| Safety Devices | Door Imbalance protection Over speed & Over temperature detection |
| Acceleration/Deceleration time | 9 ↑ / 10 ↓ |
| Power | 660W; Single-phase AC220V-240V, 50Hz/60Hz, 6.3A; AC110V-120V, 50Hz/60Hz, 10A |
| Dimension[WxDxH] | 445x579x269mm |
| Weight | 36kg |
| Certification | CE cTUVus FCC IMD |
| Advanced features | speed/rcf switch; Rotor identification |

DM0636 series | Rotors and Adapters



Uncapping block

for S4-100 rotor



SE4-100(Standard accessory) for DM0636 & DM0636R

Cat. No. 19400041

Max. speed: 4000rpm

Max. RCF: 2910×g

Rotor material: stainless steel body and adapter



19400045



19400044



19400043



19400042

| | | | | | | | | | | | |
|-------------------|-----------|--------|--------|--------|--------|----------|---------|---------|----------|---------------------------|-----------------|
| bucket | x 4 | | | | | | | | | | |
| tube | x 36 | | x 16 | | | x 8 | x 4 | x 4 | x 4 | x 8 | x 20 |
| Nominal volume | 3-7mL | | 10mL | 12mL | 15mL | 50mL | 100mL | 85mL | 50mL | 15mL | 3-7mL |
| φ×L mm | 13×75 | 13×100 | 15×100 | 17×105 | 17×120 | 29.5×100 | 38×108 | 38×104 | 29.5×100 | 17×120 13×100 13×75 | 13×100 13×75 |
| tube | | | | | | | | | | | |
| adapter | with plug | | | | | | | | | | |
| | | | | | | | A100P80 | A100P50 | A100P15 | A100P10 | |
| Package | 36 | | | | | | 4 | 4 | 8 | 4 | |
| Tubes per rotor | 36 | 36 | 16 | 16 | 16 | 8 | 4 | 4 | 4 | 8 | 20 |
| Radius(mm) | 14 | 16.5 | 15.9 | 15.9 | 15.9 | 15.9 | 15.9 | 15.9 | 15.9 | 15.1 | 14.7 |
| Max RCF (g-force) | 2500 | 2950 | 2840 | 2840 | 2840 | 2840 | 2840 | 2840 | 2840 | 2700 | 2630 |

Available rotors



AS12-PCR8 D0636

Cat. No. 19400036

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



AS30-2 D0636

Cat. No. 19400034

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



AS60-2 D0636

Cat. No. 19400037

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



S2-MP D0636

Cat. No. 19400062

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

Available rotors



AS6-50V

DM0636

Cat. No. 19400038

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



AS18-5V

DM0636

Cat. No. 19400035

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



A8-50

DM0636

Cat. No. 19400039

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



A30-15

DM0636

Cat. No. 19400040

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

| Capacity | 3-7mL Blood collection tube | 10mL Blood collection tube | 12mL urine tube | 15mL |
|----------------|-----------------------------------|----------------------------------|-----------------|--------|
| φ×L mm | 13×75 | 13×100 | 17×105 | 17×120 |
| Tubes Quantity | 30 | 30 | 30 | 30 |

Spectrophotometer

Spectrophotometer

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

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



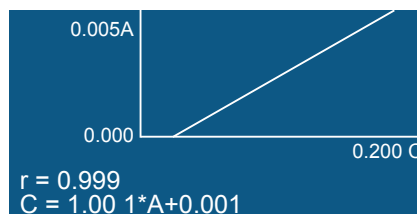
Features

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

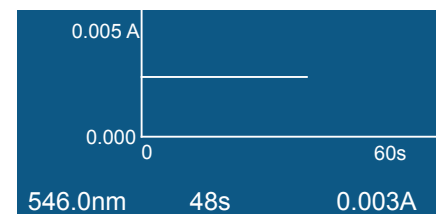
Basic Mode

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

Quantitative



Kinetics





| Model | SP-V1000 | SP-UV1000 | SP-V1100 | SP-UV1100 |
|---------------------------|--|--|---|---|
| Optical System | Single Beam | Single Beam | Single Beam | Single Beam |
| Light Source | Tungsten lamp | Tungsten lamp & Deuterium lamp | Tungsten lamp | Tungsten lamp & Deuterium lamp |
| Spectral Bandwidth | 4.0nm | 4.0nm | 2.0nm | 2.0nm |
| Wavelength Range | 325-1000nm | 200-1000nm | 320-1100nm | 190-1100nm |
| Wavelength Accuracy | ±2nm | ±2nm | ±0.5nm | ±0.5nm |
| Wavelength Repeatability | ≤1nm | ≤1nm | ≤0.3nm | ≤0.3nm |
| Photometric Range | -0.3 - 3.0 A, 0 - 200%T | -0.3 - 3.0 A, 0 - 200 %T | -0.3 - 3.0 A, 0 - 200 %T | -0.3 - 3.0 A, 0 - 200%T |
| Photometric Accuracy | ±0.003 A @ 0.5 A, ±0.006 A @ 1.0 A, ±0.5%T @ 100%T | ±0.003 A @ 0.5 A, ±0.006 A @ 1.0 A, ±0.5%T @ 100%T | ±0.002 A @ 0.5 A, ±0.004 A @ 1.0 A, ±0.3%T @ 100%T | ±0.002 A @ 0.5 A, ±0.004 A @ 1.0 A, ±0.3%T @ 100%T |
| Photometric Repeatability | ≤0.0015 A @ 0.5 A, ≤0.003 A @ 1.0 A, ≤0.25%T @ 100%T | ≤0.0015 A @ 0.5 A, ≤0.003 A @ 1.0 A, ≤0.25%T @ 100%T | ≤0.001 A @ 0.5 A, ≤0.002 A @ 1.0 A, ≤0.15%T @ 100%T | ≤0.001 A @ 0.5 A, ≤0.002 A @ 1.0 A, ≤0.15%T @ 100%T |
| Stability | ≤0.002 A/h @ 500 nm (after preheat 2 hours) | ≤0.002 A/h @ 500 nm (after preheat 2 hours) | ≤0.002 A/h @ 500 nm (after preheat 2 hours) | ≤0.002 A/h @ 500 nm (after preheat 2 hours) |
| Stray Light | ≤0.2%T @ 360nm | ≤0.2%T @ 220&360nm | ≤0.05%T @ 360nm | ≤0.05%T @ 220 & 360nm |
| Sample Compartment | 4-position, 10mm pathlength cuvette | 4-position, 10mm pathlength cuvette | 4-position, 10mm pathlength cuvette | 4-position, 10mm pathlength cuvette |
| Display | LCD | LCD | LCD | LCD |
| Output | USB Port & Parallel Port (Printer) | USB Port & Parallel Port (Printer) | USB Port & Parallel Port (Printer) | USB Port & Parallel Port (Printer) |
| Power | 110/220VAC, 50/60Hz, 80W | 110/220VAC, 50/60Hz, 120W | 110/220VAC, 50/60Hz, 80W | 110/220VAC, 50/60Hz, 120W |
| Dimension(LxWxH) | 490x360x210mm | 490x360x210mm | 490x360x210mm | 490x360x210mm |
| Weight | 10kg | 12kg | 10kg | 12kg |

Spectrophotometer | Accessories



Cat. No. 18900337
Micro Cell holder



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



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



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



Cat. No. 18900333
4-cell holder for up to
100mm sq. 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)