



RWD



RWD



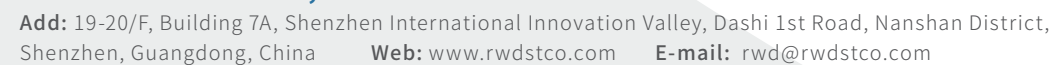
RWD 2021
PRODUCT CATALOG



For Pathological Diagnosis
and Cell & Molecular Biology Research




RWD Life Science Co.,Ltd



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Company Profile

RWD Life Science specializes in life science, animal healthcare, and medical devices. Founded in 2002 and headquartered in Shenzhen, our products and services cover more than 100 countries and regions. We are dedicated to contributing our wisdom and effort to the improvement of the quality of life. Moreover, we are firmly committed to being a globally-advanced science enterprise.

Oriented by customer demands and motivated by excellent talents, RWD is continuously establishing long-term partnerships with domestic and foreign universities. We also invest in our R&D to achieve innovation in our products, technologies, and service. We aim to provide solutions with higher quality to our customers.

Based on the Chinese market and serving customers around the world, RWD has not only achieved a strong reputation and advantage in the fields of respiratory anesthesia, neuroscience research, animal behavior research, surgery and nursing, and pathological analysis, but also gained constant trust and support from our domestic and foreign customers after our efforts during the past 19 years.

Looking into the future, we shall adhere to the core values of quality, integrity, responsibility and contribute to the advancement and development of pre-clinic and medical clinic applications.

THE DEVELOPMENT COURSE

- 2002-2006**
 - Founded in Shenzhen, China
 - Launched a self-developed brain stereotaxic instrument
 - Products were sold to the US and European markets
- 2007-2014**
 - Launched the first micro-drug delivery system in China, breaking the monopoly of foreign technology
 - Launched a global brand strategy by officially registering the “RWD” trademark in the US and China.
 - Awarded the China “National High-tech Enterprise” credential.
 - Launched animal anesthesia machines & ventilators
 - Launched veterinary clinical animal diagnosis and treatment solutions, enter the field of animal health
- 2015-2021**
 - Achieved market targets for products sold in 100 countries around the world.
 - Helping with talent cultivation:
 - Launched the “RWD Basic Medicine (Notable) Scholarship” to well-known universities in China
 - launched a donation program for animal anesthesia machines for colleges and universities
 - Developed integrated solutions for brain science research
 - The market share of stereotaxic instruments in China as the first
 - Developed solution for cell research.
 - the market share of animal anesthesia machines in China among the top rank
 - Authenticated as “Guangdong Life Science Analytical Instruments Technology Research Center”
 - Launched microtomes, entering the field of clinical medicine
 - Launched the first Automated Stereotaxic Instruments in China
 - Serviced for 17000+ global customers
 - The No. of employee attain the scale of 600+

CATALOGUE

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Microcentrifuges

Minux® Rotary Microtomes

Rotary microtome is a device for paraffin section, widely used in medical and biological research. It is used for pathological diagnosis in clinical, and used for research at the tissue and cell level.



Features

Visual pointer

- » Designed with the visual pointer on precise positioning system, easy to adjust the sample to the target angle, reducing trimming and sample waste.
- » Adjust multiple devices to the same angle easily and quickly.

The side knobs

- » Integrated with the machine, ergonomic design, make operation more comfortable and coordinated.
- » The sample feeding speed can be adjusted freely between 0-1800µm/s, more choice and more efficient.
- » Durable military-grade devices, service life is more than 20 million times.

Automatic section

- » It is stable and maintains slice consistency.
- » No extra skills required, easy to complete the operation.
- » Some specimens such as embryos and brains need to be cut for hundreds of pieces. It is hard for you, but easy for automatic section.

Easily removable waste tray

- » With magnetic function, easy to disassemble and install.
- » Special coating materials tray, easy to clean up, shorten the cleaning time to a few seconds.

Technical Parameters

Parameters	Model	S700 Semi-Automated	S700A Fully-Automated
Section thickness setting range: 0.5 - 100 µm		✓	✓
Trimming section thickness setting range: 1 - 800 µm		✓	✓
Electric coarse feed speed: 0-1800µm/s		✓	✓
Specimen retraction: 0-250µm		✓	✓
Specimen feed: 28mm, vertical stroke: 70mm		✓	✓
Specimen orientation: X/Y axis 8°, Z axis 360°		✓	✓
Maximum specimen size: 55*50*30mm		✓	✓
Automated mode and manual mode switch			✓
Emergency stop button			✓
Cut window function			✓
Slice speed selection			✓
Four slice modes: Int., Single, Cont., Multi.			✓
Pedals(optional)			✓

Order Information

Cat No.	Product Description
S700A	Fully-Auto rotary microtome, include a box of blades(50 pcs)
S700	Semi-Auto rotary microtome, include a box of blades(50 pcs)
S700-F3	Universal clamp
S700-F4	Standard clamp
S700-F7	Blade holder assembly
S700-F9	Blade holder upper bracket
S700-F10	Easy-clean waste tray
S700-F6	Antistatic waste tray

Disposable Microtome Blades-low profile



Features:

- Sharp and durable, cost-effective
- For rotary microtomes and cryostats use
- Packed in a push-out distribution box for easy access

Order Information

Cat No.	Product Description
PB-1 Pro	Disposable Microtome Blades, 80mm*8mm*0.25mm, 50 pcs, for paraffin and frozen section

Minux® Cryostats

Cryostat is a device for rapidly cooling tissue to a certain hardness under low temperature conditions and then slicing. It is a quick and easy method. Hospitals mainly use it for rapid pathological diagnosis during surgery. Researchers use it for preparation of biological tissue samples for in situ hybridization, immunohistochemistry, etc.



Features

Stable

- **Stable temperature:** advanced temperature control system, small temperature fluctuations. Even if the window is opened for more than 1 hour, the temperature is still stable.
- **Stable slice quality:** high-precision cross rail and screw, five-phase high-resolution sampling motor and horizontal sampling slider made of aviation aluminum, form a precise sampling system to ensure stable slice quality.

Safe

- **UVC disinfection:** the latest low-temperature UVC disinfection technology. The irradiation intensity can effectively kill bacteria and viruses, disinfect the inner surface and the air of the cabinet, and reduce the risk of contamination by infectious materials.
- **Waste liquid management system:** a waste liquid volume display on the touch screen. There are reminders of full bottle and not in place to prevent waste liquid from flowing out and contaminating the ground.

Efficient

- **Efficient operation:** the color touch screen, with a joystick that integrates coarse sample feeding, trimming and section switching, and slice parameter adjustment, constitutes an efficient operating system.
- **Quick positioning:** precise positioning system with $\pm 8^\circ$ visual pointer, easy to adjust the specimen clamp to the target angle, reducing trimming and sample waste.
- **Automatic sleep and wake-up:** saving energy, simplify manual operation and reduce waiting time.
- **Sample installation and marking:** buckle design, convenient installation and firm fixation. The unique label design of specimen discs makes it easy to record and identify each sample to prevent confusion.
- **Efficient and thorough defrosting:** automatic defrosting for cryochamber, specimen head, quick-freeze shelf, more thorough. For manual defrosting, there are different parts to choose to improve efficiency.

Technical Parameters

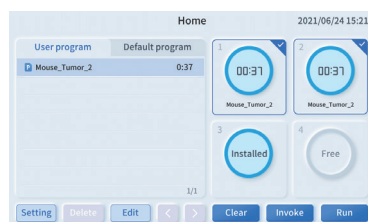
Parameters	Model	FS800 Semi-Automated	FS800A Automated
Section thickness setting range: 0.5 - 100 μm		✓	✓
Trimming section thickness setting range: 1 - 800 μm		✓	✓
Electric coarse feed speed: 0-1800 $\mu\text{m/s}$ adjustable		✓	✓
Specimen retraction: 0-250 μm		✓	✓
Specimen feed: 28mm		✓	✓
Vertical stroke: 70mm		✓	✓
Specimen orientation with visual pointer: X/Y axis 8° , Z axis 360°		✓	✓
Number of refrigerated sites: 15		✓	✓
Number of fast cooling sites: 2		✓	✓
Cryochamber temperature range: $0^\circ\text{C}\sim-35^\circ\text{C}$		✓	✓
Automatic and manual defrosting		✓	✓
Automatic and manual UVC disinfection		✓	✓
Automated mode and manual mode switch			✓
Emergency stop button			✓
Cut window function			✓
Slice speed selection			✓
Four slice modes: Int.,Single,Cont., Multi.			✓
Pedals(optional)			✓

Order Information

Cat No.	Type	Product Description
FS800	UV	Semi-Auto,with UVC disinfection function
	Specimen	Semi-Auto,with UVC disinfection,specimen cooling system
	Vacuum	Semi-Auto,with UVC disinfection,Vacuum,specimen cooling system
FS800A	Auto	Fully-Auto,with UVC disinfection,specimen cooling system,auto section function
	Max	Fully-Auto,with UVC disinfection,vacuum,specimen cooling system,auto section function

Single Cell Suspension Dissociator

RWD Single cell suspension dissociator uses tissue processing tubes, tissue dissociation kits, and built-in optimization programs for preparing high-activity single-cell suspension and tissue homogenate. The preparation of single-cell suspension with high cell viability can be completed within 15-30 minutes, which makes the experiments more reproducible. 4 independent operating channels and heating jackets can automate the processes and improve the efficiency of tissue processing. It is widely used in single-cell sequencing, primary cell culture, fluorescence-activated cell sorting, cell therapy, and other research fields.



Tube position detecting



Visualized and editable programs

Features

Intelligent

- Pre-defined standard processes and customized processes supported.
- Processes can be imported and synchronized via USB ports.

Gentle

- Stable motor speed ranges from 20 to 4000 rpm.
- Customized tissue dissociation kits and tissue processing tubes can ensure cell viability and reduce experimental losses.

Safe

- Multiple alarms guarantee the safety of both operators and samples.
- Fully sealed tube prevents contamination of cells.

Efficient

- 4 independent channels work simultaneously for different tissue processing.
- Heating jackets are available for fully automated sample preparation.
- Capable of single-cell suspension and tissue homogenate.

Technical Parameters

Model	DSC-400
Sample volume	20-4000mg
Buffer volume	0.3-10mL
Speed	20-4000 rpm
Temperature	37°C
Channels	4
Operation method	Touch screen
Dimensions (W*D*H)	215*380*190 mm
Weight	~9.0 kg

Order Information

Cat No.	Product Description
DSC-400	Single cell suspension dissociator
SCT-25	Tissue processing tube(25pcs/box)
SCT-100	Tissue processing tube(100pcs/box)
DHTE-5001	High Activity Tumor Tissue Enzymatic Digestion Kit (Mouse)

Consumables



Tissue Processing Tube

- Ethylene oxide(EO) sterilized.
- Independent packaging make it convenient

Order Information

Model	SCT-25	SCT-100
Sample volume	20-4000mg	
Buffer volume	0.3-10mL	
Dimensions	35*89mm	
Package	25pcs/box	100pcs/box



Enzymatic Digestion Kit

- Targeted optimization of enzymatic hydrolysis formula can ensure high cell viability.
- Preserving cell surface epitopes leads to no effect for downstream experiments.

Order Information

Product Description	Model	Number of reactions
High Activity Tumor Tissue Enzymatic Digestion Kit (Mouse)	DHTE-5001	50T
High Activity Neonatal Brain Enzymatic Digestion Kit (Mouse and Rat)	DHNBE-5002	50T
High Activity Adult Brain Enzymatic Digestion Kit (Mouse and Rat)	DHABE-5003	50T
High Activity Spleen Tissue Enzymatic Digestion Kit (Mouse)	DHSE-5004	50T
Other Tissue Enzymatic Digestion Kit *		

Cell Separation Kit



Mouse CD3⁺ Cell Separation Kit



LarSep Columns(25pcs/box)

Features

- High cell viability, high purity, low stimulation, and low residue.
- Cell culture, flow cytometry, and single-cell sequencing can be carried out after separation.

Order Information

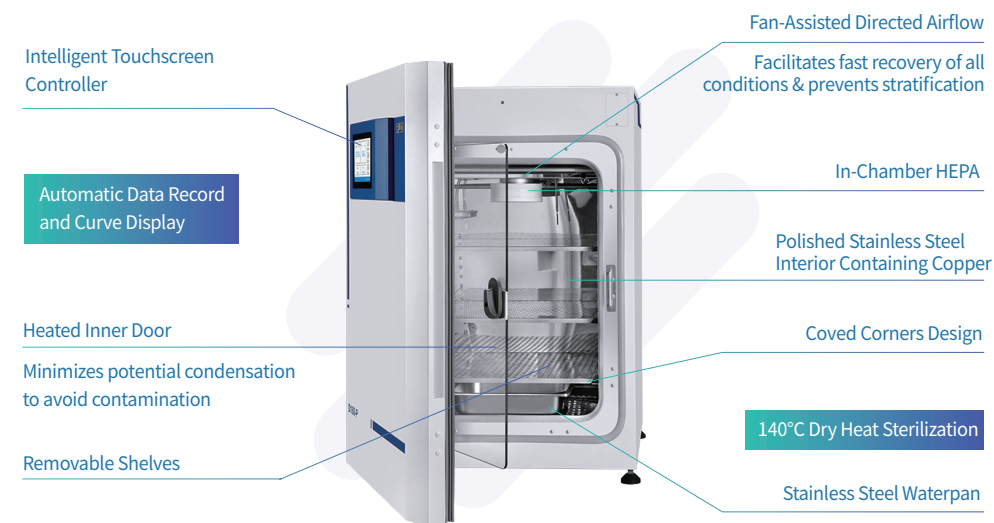
Cat No.	Product Description
LSC-25	LarSep Columns(25pcs/box)
SSA	Separation stand
HCS-01	High-capacity Separator
K1301-10	Mouse CD3 ⁺ Cell Separation Kit

CO₂ Incubator

Provide a more stable cell culture environment

D180-P is a well-designed air-jacketed CO₂ incubator for all kinds of cell lines or tissues culture, including primary cells, stem cells, and so on. It can provide a more suitable culture environment for cells by controlling temperature, CO₂ concentration precisely and by maintaining a high relative humidity (RH). The built-in 140°C dry heat sterilization program helps to prevent bacterial contamination. All the data and 7-days performance trend graphing are visible on the 7-inch touchscreen, and stored data can be download through USB.

With reliable temperature stability, pure environment, and simple operation, D180-P will be an indispensable device in the fields of cancer research, stem cell research, immunology research, pharmaceutical research, and neurobiology research.



Structure of D180-P

Features

Stable environment for cell culture

- High temperature resistant infrared (IR) CO₂ sensor enables real-time monitoring the change of CO₂ concentration.
- Six-sided air jacketed heating method with Pt1000 platinum thermistor significantly shorten the recover time to target temperature.

Contamination control of Inner chamber

- In-chamber HEPA filter combined with an active fan system provides ISO 5 (Class 100) air cleanliness.
- 140°C high temperature sterilization provides overnight cycle operation to eliminate potential contamination.

Intelligent operation

- 7-inch touch screen provides complete data visibility including three core parameters (Temp., CO₂ and rH) and alarm records to monitor incubator operation in real time.
- 8000 operation or alarm records ensure the safety of samples and incubator.
- Customized alarm settings allow users to modify upper and lower alarm limits.
- Within 7 days parameters curve display (Temp., CO₂ and rH) provides real time monitoring.



High Efficiency Particulate Air Filter System



Stainless Steel Waterpan

Technical Parameters

Temperature	Control & Range	±0.1°C, 5°C above ambient to 50°C
	Heating Method	Air Jacketed
	Uniformity	±0.3°C @ 37°C
	Alarm Setting	±5°C
	Sensor	Pt1000 platinum thermistor
	Controller	PID
	Readability & Stability	0.1°C
CO ₂ Concentration	Sterilization Method	140°C dry heat sterilization
	Control & Range	Better than ±0.1%; 0-20%
	Sensor	High temperature resistant infrared (IR) sensor
	Inlet Pressure	1.0 bar (recommended)
	Uniformity	±0.3%
	Readability & Stability	0.10%
	Alarm Setting	±1%
Humidity	Humidity Pan Volume	~3.8 L
	Display	1% RH
Shelves	Dimensions	47.0×47.0 cm
	Surface Area (Standard & Max)	214.6 cm ² ; 220.7 cm ²
	Number (Standard & Max)	3 ; 16
Size & Weight	Interior Volume	175 L
	Interior Dimensions	51.0 (W) ×54.7 (D) ×67.5 (H) cm
	Exterior Dimensions	66.0 (W) ×67.0 (D) ×97.0 (H) cm
	Net Weight	110 kg (242.5 lbs)

Order Information

Cat No.	Product Description
D180-P	CO ₂ incubator (Equipped with humidity display and high temperature sterilization function), 220V-240V VAC 50/60 Hz
D181-P	CO ₂ incubator (Equipped with humidity display and high temperature sterilization function), 120V-120V VAC 50/60 Hz

Automated Cell Counters

RWD Automated Cell Counter adopts Trypan Blue staining method, intelligent image recognition and advanced optical imaging technology to achieve accurate and automatic cell analysis. The algorithm can identify both live and dead cells within 9 seconds. Information such as cell counts, viability, diameter can be obtained by just one-click. With fluorescence cube, C100 can display images in BF and FL channels simultaneously and clearly present cell counts and cell morphology. It is an optimal device to analyze cell viability and transfection efficiency in immunology and vaccine development, cell therapy, tumor research, stem cell, metabolism research and others.

BF



C100-SE Automated Cell Counter

FL



C100 Automated Cell Counter

Product Characteristics

High accuracy

- The self-developed algorithm can identify clustered cells.
- Intelligently cell marks contribute to precise cell recognition.
- RBC counting.
- Low autofluorescence and high-transmit filter enable clear imaging.

User-friendly

- User-friendly UI and built-in user guide interfaces ensure easy operation.
- Up to 1000 counting results can be stored. No need another device for extra storage.

Time-saving

- Autofocus and auto exposure.
- Powerful computing capability ensures high efficiency.

Compact design

- Compact size fits into different placements.
- Removable modular FL cubes allow easy switches among various scenes.

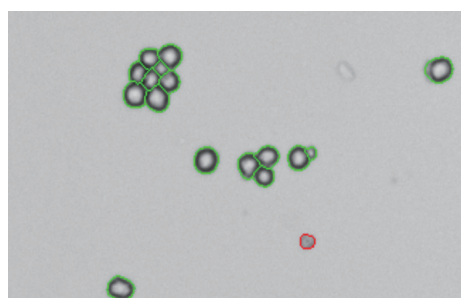
Accessories and consumables



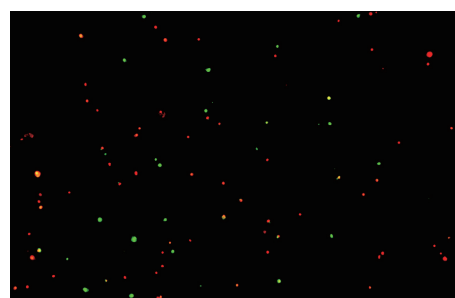
FL Cube



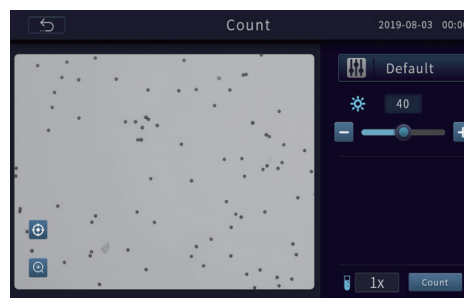
Disposable Cell Counting Slide



Clustered cell recognition algorithm



Clear fluorescence imaging



Pre-dilution calculator



Cell splitting calculator

Technical Parameters

FL Cube	Excitation	Emission	General Dyes
FL Cube-01	375/28nm	460/50nm	DAPI, Hoechst, BFP
FL Cube-02	480/30nm	535/40nm	Acridine Orange (AO), Calcein-AM, Alexa fluor 488, SYBR Green, FITC, GFP
FL Cube-03	540/25nm	620/60nm	Propidium Iodide (PI), DsRed, dTomato, RFP

Parameters	Description	
Model	C100-SE	C100
Optional fluorescence application	N/A	<ul style="list-style-type: none"> ● (Ex :375/28nm ;Em:460/50nm) ● (Ex :480/30nm ;Em:535/40nm) ● (Ex :540/25nm ;Em:620/60nm)
Amplification Factor	2.5×, 5.0 Megapixel	
Focus Method	Manual focusing & Autofocusing	
Counting Area	2.15 mm×1.62 mm	
Cell Type	Cell lines, stem cells, primary cells, pollens, beer yeast	
Cell Size Range	4-60 μm (Optimal: 7-60 μm)	
Cell Concentration Range	10 ⁴ -10 ⁷ cells/mL	
Cell counting Time	Less than 9s	
Historical Data Storage	1000 counting reports and images at most	
Languages	Chinese and English	
Dimensions	212 mm(W)* 264 mm(H)* 165 mm (D)	
Weight	~3.0kg	~3.2kg

Order Information

Cat No.	Product Description
C100-SE	Automated Cell Counter (BF)
C100	Automated Cell Counter (BF + FL)
FL Cube-01	● (Ex :375/28nm ;Em:460/50nm)
FL Cube-02	● (Ex :480/30nm ;Em:535/40nm)
FL Cube-03	● (Ex :540/25nm ;Em:620/60nm)
DS-50	Disposable Slide (50 pcs/box)

Microcentrifuges

M1324R Refrigerated Microcentrifuge

RWD M1324R microcentrifuge is a refrigerated model, it can work stably and quietly at the maximum speed of 15000rpm. Even at the highest speed, it will still make sure the stable temperature centrifugation of samples at -10°C~40 °C. Optional rotors for different needs (PCR tubes, 1.5/2 mL EP tubes, etc.). Small footprint and low noise, touch screen interaction, all your user-defined preset programs can be called by one click. All the functions are designed according to your needs, which simplifies centrifugation.



M1324R Microcentrifuge

Product characteristics

Efficient

- Quick precooling. From RT to 4 °C in only 8 minutes.
- The seamlessly fit for inner cavity winding technology enables high-efficient energy transfer.

Stable and Safe

- High-density foaming technology benefits energy-saving and heat-preservation.
- Standard aerosol-tight rotor with aerospace-grade aluminum alloy withstands high temperature sterilization and avoids biohazards.
- Qualified ultrasonic non-destructive test, Schenck balancing test and extreme blasting test to protect personnel safety.
- Real-time rotor dynamic balancing monitoring system and multiple alarm functions guarantee safe operation.

Simple

- Combination of touch screen and function keys provides quick and convenient setting and parameter use.
- 12 custom programs enable immediate centrifuge operation in multiple scenarios.
- Magnetic condensed water collection pan to eliminate inner water accumulation.
- Mechanical lock design for the centrifuge lid enables easy opening and closing.
- Quick-Lock rotor, closes with only a 1/3 turn.

Compact

- One-pipette-width compact design.
- Lid hinge design with suspending hovering optionally.

Self-locking lid

Standard Aerosol-tight rotor

Combination of buttons and touch interaction

Small, quiet and durable



Technical Parameters

Parameters	Description
Max. Speed	15000rpm
Max. RCF	21130×g
Max. Capacity	2mL×24
Display	Touch screen
Program	12
Temperature Control	-10°C to 40°C
Noise Level	<54dB (A)
Dimension (W*H*D)	304mm*304mm*517mm
Weight (with rotor)	33kg

Order Information

Model	Product Description
M1324R	Microcentrifuge, Refrigerated, Rotor with Aerosol-tight lid
M-F24G	Aerosol-tight Lid, 24×1.5/2 mL tube rotor
M-F24	24×1.5/2 mL tube rotor
M-F4PCR	4×PCR tube rotor
M-F18Kit	18×Spin column rotor
M-F24QG	Aerosol-tight Lid, 24×1.5/2.0 mL tube Quick- Lock rotor
M-F24Q	24×1.5/2 mL tube Quick- Lock rotor

M1324 Ventilated Microcentrifuge

RWD M1324 microcentrifuge is a ventilated model, it can satisfy most of common standard applications. And even at the highest speed, it can still work stably and quietly. It is the best choice for laboratory separation and provides great flexibility with its optional rotors for different needs (PCR tubes, 1.5/2 mL EP tubes, etc.).



M1324 Microcentrifuge

Product characteristics

- Max. speed 15,800 rpm
- Max. RCF 23,444 × g
- 4.3-inch touch screen control
- Low noise and high-speed accuracy
- Multi-step speed up and down available (10 acceleration and braking ramps)
- Quick-Lock rotor, closes with only a 1/2 turn
- Automatic unbalance detection
- Self-locking device, over-speed safety device, and automatic alarm device
- Inching function with brief centrifuging



Quick-Lock rotor

Technical Parameters

Parameters	Description
Max. Speed	15800rpm (23444 × g)
Max. Capacity	2mL × 24
Noise Level	≤ 51dB(A)
Display	Touch screen
Program	48
Dimension (W*H*D)	262mm*282mm*385mm
Weight (with rotor)	22kg

Order Information

Model	Product Description
M1324	Microcentrifuge, Ventilated, Rotor with Aerosol-tight lid
M-F24G	Aerosol-tight Lid, 24 × 1.5/2 mL tube rotor
M-F24	24 × 1.5/2 mL tube rotor
M-F4PCR	4 × PCR tube rotor
M-F18Kit	18 × Spin column rotor
M-F24QG	Aerosol-tight Lid, 24 × 1.5/2.0 mL tube Quick-lock rotor
M-F24Q	24 × 1.5/2 mL tube Quick-Lock rotor

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