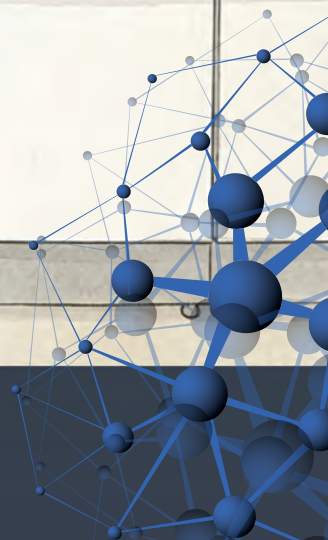
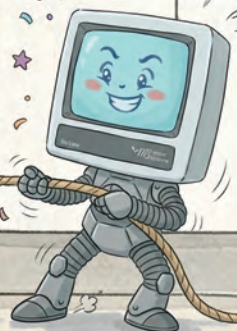
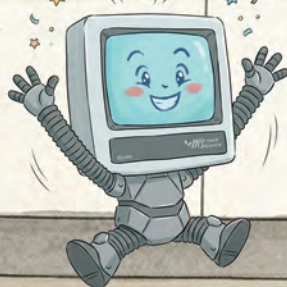


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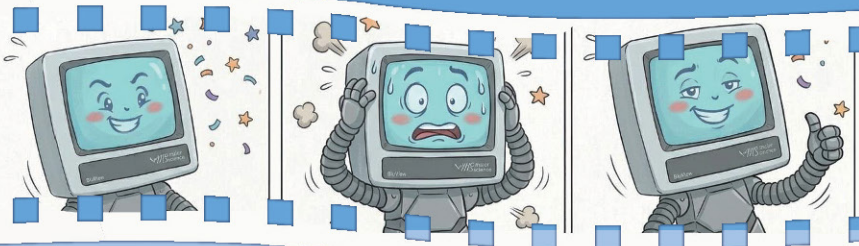


Innovative Life Sciences Tools

2026 BROCHURE



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About major science

Who We Are

Founded in 1994 by a team of experienced engineers as well as up-and-coming design specialists, major science designs, manufactures, and markets laboratory equipment that supports scientific research in life sciences laboratories. Through our existing offices in different regims, major science provides laboratory products and quality services to biotechnology companies, academic institutions and government research labs across the world.

major science is consistently delivering cutting-edge instruments for the bio-industry that cover nearly all of your laboratory needs. We provide the Winpact serials brand products which are the state-of-the-art fermentor and bioreactor for the fermentation and cell cultivation system. The Winpact serials brand products offer a wide range of fermentation systems and includes many of the most widely applied bench top-sized instruments for the life sciences field. In addition, we also offer innovative general instruments for all of your laboratory needs. Our general instrument product line includes Electrophoresis and Related Products, Gel Documentation System, Blue Light Technology, Mixer / Temperature Control and Peristaltic Pump.

major science conducts business via our global distribution partners who also serve as our main sales force. These strategically-located partners ensure that major science supplies top-quality products, services, and support to all of our customers in any region of the globe. Products from major science are produced under international quality standards and specifications that excel in performance.

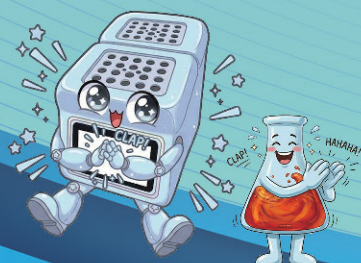
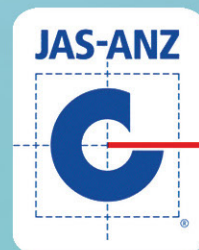
For more information, please feel free to contact us.

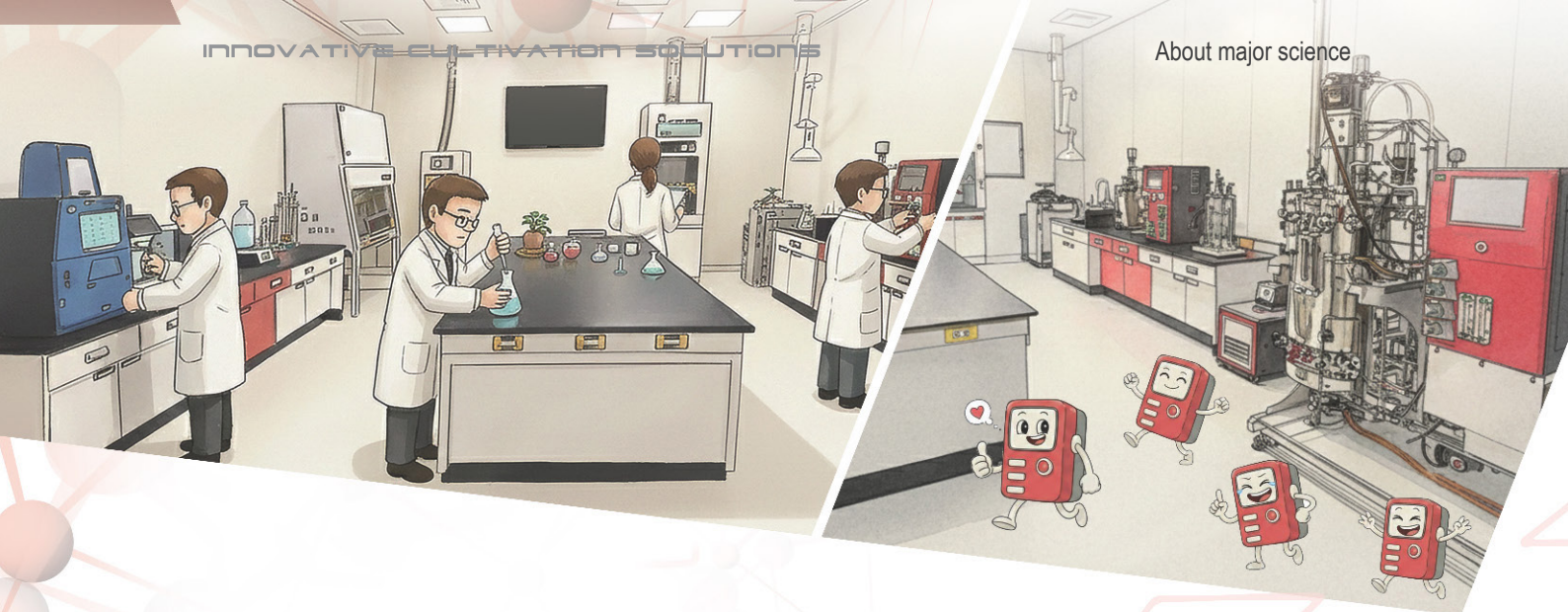
www.majorsci.com info@majorsci.com

Our History

- 1994 major science founded as a biotechnology instrument distributor and provide engineering service in life sciences field.
- 1996 Began to sell major science branded general instruments.
- 2000 Announced our Winpact fermentation and cell cultivation product lines.
- 2005 Built up global awareness.
- 2008 Founded branch offices overseas.
- 2013 Accredited to SGS ISO 9001:2008
- 2017 Accredited to SGS ISO 9001:2015
- 2018 Accredited to TQCSI ISO 9001:2015
- 2020 Build a Winpact 5000L bioprocess production line in Taiwan
- 2025 Established OEM Research Laboratory

*Please visit our website www.majorsci.com for more product selection and detailed information.





Winpact

Fermentation and Cell Cultivation Technology

Winpact is a product brand under major science, which provides a comprehensive and innovative line of cultivation products designed for different cell culture experiments and applications. It comes at a benchtop scale and has a large, color touch-screen panel with a user-friendly interface. Its distinctive functions include various programming operations to control the pump speed, pH levels, temperature, and more. The Winpact Fermentation System comes equipped with a full connection device to connect to any PC for real-time recording and environment control within the vessel.



Our Capabilities

- Innovative product design from our in-house R&D team
- Flexible production schedules
- ETL certified manufacturing facility
- CE and 3rd party certification
- OEM/ODM production experiences with leading companies
- Global marketing and product support
- Worldwide liability insurance across all product lines

Our Mission

major science is devoted to create life sciences research instruments through quality and innovation. Our mission is to deliver integrated laboratory solutions to our customers and distribution partners through collaborative teamwork, thoughtful innovation, practical efficiency and outstanding service.

Our Vision

major science is devoted to serving customers in the scientific community across the globe, which means we are constantly progressing toward further innovation and working for wider applications for our products.

Creating innovative cell cultivation solutions is among one of our highest priorities. For the Winpact family product lines, we will be adding vessels that are bigger and smaller in size, as well as pilot and production scale vessels. Furthermore, we are developing the means to create connections from multiple cell culture vessels in different conditions to a single controller. In addition, major science is expanding on the cell cultivation line with more optional devices that can be integrated with our current systems. These expansion includes various vessel types, parts, accessories, and sub-systems. We will also embed the use of disposable systems that function with plastic instead of glass vessels.

Our Quality Policy

As of January, 2013, major science is accredited to the SGS ISO 9001:2008 compliance.

major science strives to achieve high standard for customer satisfaction, we promise to always improve our quality by means of research and development, as well as embrace any challenge come forth within.

Our Values

Serving our customers

major science cares about what you care and we are dedicated to gaining your confidence. major science dedicated in providing best efforts to all of our customers' needs whether they are customized products or technical supports or others.

Innovation

major science is determined to use not only our expertise in the laboratory, but also the prior experience of our users and employees to breakthrough with the future generations of our cultivation products along with the advancement of all our other products.

Professionalism

major science has its own professional Research & Development team of scientists and product specialists that are further supported by an outperforming sales team. We integrate laboratory experiences with customers' feedback in order to ensure the best quality of products and services from the placing of your order to its delivery.

User-friendly Instruments

major science offers easy-to-operate and convenient instruments in the world of biotechnology. We provide simple and intuitive methods such as touch-screen and keypads for different applications that are easy to navigate and operate.

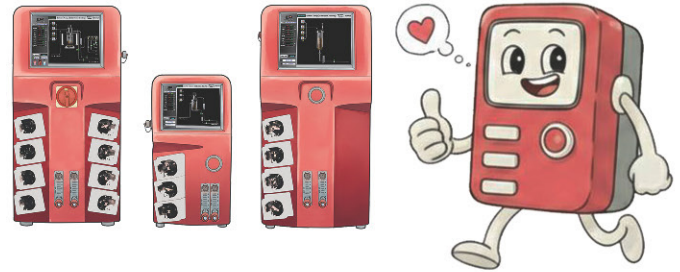
Staying Green, protecting mankind

major sciences collaborate with our global distributors to distribute our products to every corner of the world, we take pride and corporate social responsibility of being a good global citizen in ensuring the protection of our environment.

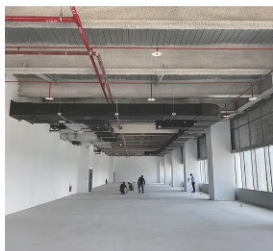
Your Bridge to Global Innovation

Customized Excellence in:

- Biopharma Equipment & Process Optimization
- Regulatory Compliance & Quality Excellence
- Global Collaboration & Market Strategy



Empowering enterprises to maximize efficiency, ensure compliance, and lead in the competitive global landscape.



Engineering Construction and Consulting

We provide professional, customized engineering solutions for the biotechnology, pharmaceutical, and food industries. From design, construction, and supervision to commissioning and validation, we can answer your questions and ensure compliance with industry standards and regulations.



Find professional products

We can help you find and introduce any customized products, equipment, and facilities related to the biotechnology industry.



Market Analysis and Strategy Alliance

Interested in entering the biotechnology industry but unfamiliar with its ecosystem? We have assisted many large corporations in expanding into the biotechnology sector. Please contact us with any market-related questions.



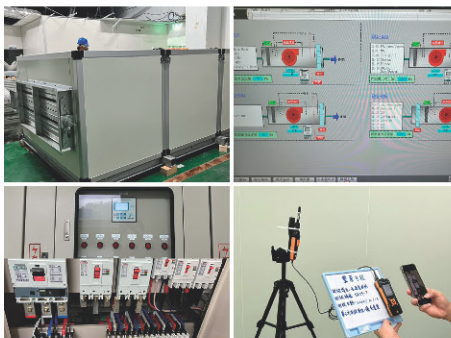
Marketing and Product Distribution Development

Looking to market your biotechnology products, or seeking distributors? We have successfully connected numerous international equipment suppliers with Taiwanese companies and facilitated sales. Contact us for more information!



Customized service

Do you have any other industry-related questions you'd like us to analyze? We'd be happy to provide customized services and offer proposed solutions!



* All images are for reference only, actual products might differ from the pictures above.
* Technical specifications subject to change without notice.

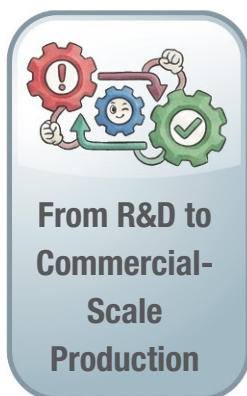
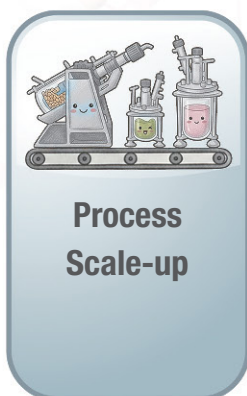
Fermentation OEM Service

major science has over 20 years of experience in fermentation bioprocessing equipment and microbial fermentation. We possess strong expertise in microbial fermentation, encompassing microorganism strain optimization, culture condition optimization, and scale-up process development.



If you have any requirements for fermentation OEM experimentation or production, please contact us at info@majorsci.com.

Our team will be pleased to provide you with detailed information and tailored support.



Winpact Laboratory



WP Multi Parallel Fermenter

- 15" Color Touch Panel with an intuitive user interface
- Independent control of up to 4 bioreactors per module
- Scalable parallel operation of up to 16 bioreactors via a single touchscreen
- Borosilicate glass and 316L stainless steel vessels for durability and biocompatibility
- Continuous and timer operation modes
- Programmable control with integrated PID for temperature, pH, DO, and antifoam
- Built-in feeding system with 4 high-precision peristaltic pumps



FS-MPB Series

NEW

Cat. No.	FS-MPF series
Display	15" colorful touch screen
Vessel Size	Working volume : 250ml/500ml/1000ml
Modular unit	4 vessels in 1 modular unit, individual control
Number of Modular unit	Max is 4 units(total : 16 vessels)
Materials	Borosilicate glass and SUS316L stainless steel
Sterilization	Autoclave glass vessel
Exhaust control	Peltier Exhaust Condenser
Agitation	Top drive, brushless motor, 30-1500rpm/1rpm
Peristaltic Pump	x4, 0-100rpm, speed adjustable
Charting	CSV file, USB output
Language	Multi-language: Chinese/English
Connection	RS485
Power	100-240V, 50-60 Hz
pH control	PID control, control range : -12 pH/0.1pH, manual and programmable
DO control	PID control, control range : 0-100%/0.1%, manual and programmable
Aeration	sparger with rotameter
Antifoam	Control with peristaltic pump
Temperature control	PID control, 5°C (41°F) above coolant up to 60°C (140°F)
Exhaust control	Peltier Exhaust Condenser
optional	ORP, TCD, Optical DO, off-gas analyzer, Gas Mixing, MFC

Product images are for reference only; actual images may differ.

Laboratory-Scale Microfiltration System, WP-MF

Specification

Cat. No.	WP-MF
Filtration	Microfiltration (MF)
Operating Mode	Cross-flow / Tangential Flow Filtration
Pump Type	Peristaltic Pump
Flow Rate Range*	20 – 500 mL/min
Tubing Material	316L Stainless Steel
Membrane Holder	316L Sanitary Stainless Steel
Connection Type	Sanitary quick-clamp fittings
Valve Type	diaphragm valves
Pressure Monitoring	X2, diaphragm pressure gauges
Pressure Range	0 – 4 bar
Membrane Format	Cassette / Flat Sheet
Effective Membrane Area	0.1 m ²
Installation Type	Removable cassette structure
Flow Pattern	Cross-flow
Supported Processes	MF / UF



NEW



Optional peristaltic pump is available.

MU-D01



* All images are for reference only, actual products might differ from the pictures above.
 * Technical specifications subject to change without notice.

High Capacity Digital Peristaltic Pump

NEW

Product images are for reference only; actual images may differ.

Tubing Order Information

Silicon Tubing Specifications			
			
Cat. No.	MU-S26	MU-S73	MU-S82
Tubing material:	Platinum-cured silicone		
Inner Diameter	0.252" (6.40 mm)	0.374" (9.50 mm)	0.500" (12.70 mm)
Hose Barb Size	0.25" (6.35 mm)	0.375" (9.525 mm)	0.500" (12.70 mm)
Wall Thickness	3.2mm		
Maximum Flow Rate(ml/min)	4000 ml/min	8000 ml/min	13000 ml/min
*The flow range is subject to the motor drive of the pump. Please see Peristaltic Pump specifications for reference.			
Max. Pressure	2.06 bar (30 psi)	2.7 bar (40 psi)	1.4 bar (20 psi)
Max. Vacuum	660 mm Hg (26" Hg)		510 mm Hg (20" Hg)
Suction lift H ₂ O	8.8 m (29 ft.)		7 m (23 ft.)
Max. Temperature	230 °C (446 °F)		
Max. temperature (dynamic)	100 °C (212 °F)		
Min. Temperature	-50 °C (-58 °F)		
Min. temperature (dynamic)	-40 °C (-40 °F)		
Sterilization	Autoclave, Ethylene Oxide, Gamma Irradiation		
Sterilisation method EtO:	Yes		
Sterilisation method autoclave	Yes		

Cat. No.	WP-D01
Display	4.3" Color Touch Panel
Motor	Servo motor
Max. Pump Speed	300rpm, variable flow
Direction	Forward / Reverse
Flow Range	10 to 13000 mL/min
Number of Rollers	4
Mode	Continuous / Timing / Programmable
Calibration	Flow rate calibration



WP-D01

Flow Rate : Designed for high-throughput liquid transfer, delivering flow rates up to 13 L/min, suitable for bulk processing applications.

Precision Control : Microprocessor-based control system provides stable speed regulation and ensures accurate, repeatable dosing performance.

Contamination Control : The fluid path is fully confined to the tubing, preventing contact with pump components and enabling safe handling of sterile, corrosive, or sensitive media.

Motor : High-torque brushless motor ensures maintenance-free operation and reliable performance under continuous duty conditions.

Interface : Digital touchscreen interface supports intuitive operation, with both continuous run and programmable dispensing modes available.

Construction : Stainless steel housing offers high mechanical strength, excellent corrosion resistance, and long service life in industrial environments.

Function : Multiple control functions are available, including constant speed mode, volumetric dispensing mode, and intermittent mode. These modes can be combined to enable flexible, programmable operation.

New Digital Peristaltic Pump

The New Digital Peristaltic Pump Series features a 12" Color Touch Panel for improved control convenience and the individual control function. This including Dual and Tetrad peristaltic pumps models are available for your preference.

NEW

- Digital microprocessor control for precise speed control
- 12" Color Touch Panel shows temperature and timer simultaneously
- Compact size provides high portability
- High quality Masterflex and Watson Marlow easy load pump head
- Reversible for purging purposes
- Flow rate range from 1.2 to 1,140ml/min
- Multiple programmable operation mode available
- Constant speed and constant volume are available.

*One 12" color touch panel controller can control only one set of peristaltic pump module(2DP or 4DP) at a time.

Cat. No.	WP-2DP	WP-4DP
Display	12" Color Touch Panel	
Voltage	100V~240V, 50/60Hz	
Number Of pump head	2	4
Number Of Rollers	4	
Controller	Digital microprocess controller	
Pump Speed / Increment	5-250rpm / 1rpm	
Max. Pump Speed	250rpm	
Flow Range	0.3 - 1,026ml/min	
Program	2-step Program (running & ceasing)	
Operating temperature	Ambient to 40°C	



WP-2DP

WP-4DP



WP-2DP

WP-4DP

Plug Flow Reactor (PFR)

NEW



PFR

1. Ideal Plug Flow Reaction Environment

The system is based on the Plug Flow Reactor model design, guaranteeing precision and consistency throughout the reaction process.

Radial Homogeneity: Fluid properties (concentration, temperature) remain highly uniform across the reactor cross-section, providing reproducible reaction kinetic conditions.

2. Integrated Separation and Purification

The system is designed with the capability to integrate downstream processing, optimizing overall process efficiency.

Hollow Fiber Membrane Module: Can be optionally configured or integrated downstream for continuous re-filtration, separation, or concentration.

Enhanced Product Purity: Effectively separates particulates or impurities, simplifying subsequent product recovery and refining steps.

3. Human-Machine Interface (HMI) and Control Equipped with an intuitive Human-Machine Interface (HMI), allowing operators to easily monitor and set reaction parameters in real-time.

Winpact Stackable CO₂ Incubator Shaker

NEW

Cat. No.	Product Description	Max. Platform Capacity*
SI-900-01	Flask holder, 50 ml	≈126
SI-900-02	Flask holder, 125 ml	≈68
SI-900-03	Flask holder, 250ml	≈57
SI-900-04	Flask holder, 500 ml	≈38
SI-900-05	Flask holder, 1000 ml	≈18
SI-900-06	Flask holder, 2000 ml	≈14
SI-900-07	Flask holder, 3000 ml	≈8

- 10" LCD Display Mode
- Air circulation: forced convection, internal circulation
- Timer: 9999 minutes (or 9999 hours)
- Door opening method: slide up
- Multiple specifications for selection



SI-910
SI-960
SI-950
SI-970



* The specifications provided herein are for reference only. Final confirmation shall be based on the actual specifications.

Model	SI-910	960	SI-950	SI-970
Platform size(LxW)	91 × 50 cm			
Platform Type	Slide Out			
Platform Material	SUS316L			
Display Mode	10" LCD (Capacitive Touch Screen)			
Control System	P.I.D. control			
Control Mode	Manual editable program			
Timer	9999mins (or 9999hrs)			
Speed Range	0, 10~300 rpm	0, 10~180 rpm		
Motor	Servo motor			
Speed Increment(rpm)	±1 rpm			
Orbit Diameter	25mm(diameter)	50mm(diameter)		
Temperature Control Range	4~60°C (in 23~25°C)		Ambient~60°C (in 23~26°C)	
Temperature Increment	±0.1°C			
Temperature Uniformity	±0.5°C (at 37°C)			
Refrigerated	500W		No	
Heating Power	800W			
Cooling Power	Yes		No	
CO ₂ Control Range	No	0.1~20%		
CO ₂ Accuracy	No	±0.1%		
CO ₂ Stability	No	±0.5%		
CO ₂ Sensor	No	Infrared (IR)		
Relative Humidity	No	50~95%RH		
Illumination	Yes			
Air Circulation	Forced convection, internal circulation			
HEPA	No	Optional		
UV Germicidal Lamp	YES		No	
Sterilization Method	UV Sterilization		Moist Heat Sterilization (90°C)	Dry Heat Sterilization (180°C)

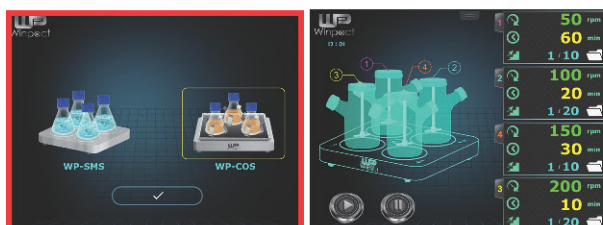
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Winpact CO₂ Resistant Orbital Shaker

WP-COS



- Corrosion-resistant construction protects internal components from high CO₂ and humidity.
- Compact design enables use inside a CO₂ incubator for versatile applications.
- Platform supports multiple accessories, including flask clamps and tube racks, to accommodate lab labware.
- Variable speed range of 1–300 rpm ensures smooth shaking.
- 12" Color Touch Panel for intuitive operation.



Cat. No.	WP-COS
Speed	0, 1 to 300 rpm (1 rpm step)
Motor	Brushless motor
Top Plate Material	316L
Platform Dimension (W x L)	300mmx300mm
Orbital diameter	20 mm
Capacity	Max. 5.2kg
Controller	12" Color Touch Panel
Mode	Continuous / Timing / Programable
Voltage	AC 100-240V, 50/60Hz
Dimensions (W x L x H)	Controller : 320 x 102 x 246 mm Base : approx. 310 x 310 x 97 mm (including tray platform)
Weight	Controller : approx. 4.65kg Base : approx. 7.15kg

Tetrad Slow Speed Magnetic Stirrer with 12" Color Touch Panel

Cat. No.	WP-SMS
Speed	0, 1 to 300 rpm (1 rpm step)
Stirring Positions	4 positions, individual rotation control
Top Plate Material	316L
Capacity	Max. 4 x 1L / 2 x 2L(diagonal position) / 2 x 3L(diagonal position)
Controller	12" Color Touch Panel
Mode	Continuous / Timing / Programable
Voltage	AC 100-240V, 50/60Hz
Dimensions (WxLxH)	Controller : 320 x 102 x 246 mm Base : approx. 310 x 310 x 46 mm
Weight	Controller : approx. 4.65kg Base : approx. 4.4kg



WP-SMS

FS-05 Winpact Parallel Fermentation System HMI Board/Monitor Module



- 10.4" Color Touch Panel
- Lightweight and portable
- Convenient for product training through teaching and demonstration

FS-05-DM

Cat. No.	FS-05-DM
Dimension (WxLxH)	Approx. 50x 275x240 mm
Control Panel	10.4" Color Touch Panel
Power Rating	100-240V~, 50/60Hz
Weight	Approx. 2.2kg

The FS-05-DM is a powerful demonstration device designed to show potential users how to operate the user interface of the Winpact benchtop fermentation system.

The FS-05-DM features a 10.4" color touch panel and includes the software of the Winpact parallel fermentation system. The entire unit is lightweight and portable, making it highly convenient for product training, teaching, and demonstrations.

Winpact Shaker

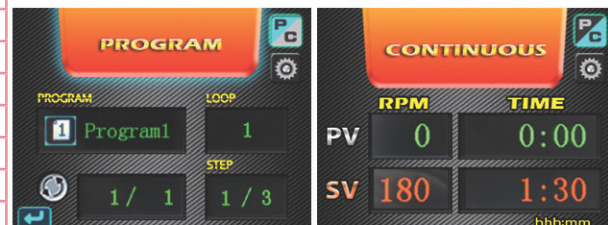
- Various speed settings from 20-500 rpm
- Equipped with a robust brushless DC motor for economical and noiseless operation
- Two modes of operation available: programmable or continuous
- Versatile accessories available for advanced culturing solutions
- Auto detection and power shutdown to platform weight imbalance or belt breakage

* Different flask will reduce the maximum speed.

Cat. No.	WS-200	WS-201
Description	Winpact Orbital Shaker (universal platform included)	Winpact Orbital Anti-moistured Shaker (universal platform included)
Platform size	460 x 460 mm	
Shaking orbit	19 mm	
Speed range	20-500 rpm	
Speed increment	1 rpm	
Timer	999 (hr): 59 (min) / Continuous	
Display	3.5" Color TFT LCD screen	
Dimension (WxLxH)	Approx. 520 x 620 x 210 mm	
Rated Voltage	100-240V~, 50 / 60Hz, 2A	
Loading Capacity *	Approx. 500 rpm: 5 kg, 250 rpm: 30 kg	
Weight	Approx. 40kg	



WS-200 / WS-201



Winpact Shaking Incubator

- Special designed drainage channel protects the motor and inner circuitry from accidental spills
- Multiple early error-detection mechanisms ensure operators' safety and completeness of experiment despite malfunction
- Lab-proven superior temperature uniformity
- A wide selection of racks, holders, sticky pads and accessories provides all-ranged compatibility to cell cultivation labwares
- Automatic system shutdown in the event of system over-heating
- Sensitivity adjustable G-sensor with warning embedded for imbalance weight detection
- Programmable or continuous mode for personnel operation
- Brushless DC motor provides long and quiet operation, durable and maintenance-free usage
- Hermetic chamber design significantly reduces operation noise and enhances precise temperature control
- 2-point temperature calibration ensures high temperature performance

Cat. No.	SI-200
Platform size	18.1" x 18.1" (460 x 460 mm)
Shaking orbit	0.7" (19 mm)
Speed range	20-500 rpm
Speed increment	1 rpm
Communication port	RS-485
External temperature probe	PT-100
Heating temperature range	Ambient +5°C to 65°C
Power	600W
Temp accuracy and uniformity	± 0.25°C at 37°C
Timer	999 (hr) : 59 (min) / Continuous
Display	3.5" Color TFT LCD screen
Dimension (W x L x H)	Approx. 590 x 820 x 585 mm
Weight	154.3 lb (70 kg)
Loading Capacity *	Approx. 500 rpm: 5 kg, 250 rpm: 30 kg
Rated voltage	110 / 220V~, 50 / 60Hz, 6.3A

*For reference only, subject to practice.



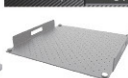
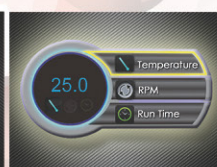
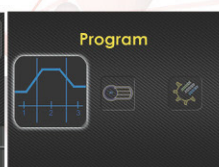
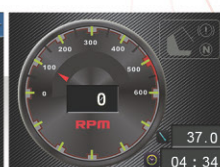
SI-200



Acrylic lid for clear viewing and easy access

New Orbital Shaking Incubator

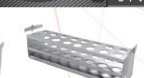
Coming Soon...



Universal platform
Cat. No.: SI-200-01



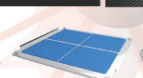
Adjustable angle tube rack
(33 x 15 ml)
Cat. No.: SI-200-02
*tube not included



Adjustable angle tube rack
(16 x 50 ml)
Cat. No.: SI-200-03



Universal spring rack
Cat. No.: SI-200-04



Sticky pad platform
Cat. No.: SI-200-05



Universal cushioned crossbar
Cat. No.: SI-200-06



Microplate holders
Cat. No.: SI-200-07
(platform not included)



Flask holder
Cat. No.: SI-200-08~13

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* Technical specifications subject to change without notice.

Autoclavable Labware

*major science Group is authorized agent for TriForest.



Fernbach Flasks
Erlenmeyer Flasks



Individually
Wrapped



Baffled Base



FPC2000



FPC1000



FPC500



FPC250



FPC125



Suitable with
SI series products



Add Culture Media
& Inoculum



Add DuoCAP™ for
Anaerobic Culture



Remove dustguard cover
for Aerobic Culture



Move to Shaker
Incubator



Shaking of cell culture



BPC2000



BPC1000



BPC0500



BPC0250



BPC0125



BPC0060



BPC0030



RPC1000



RPC0500



RPC0300

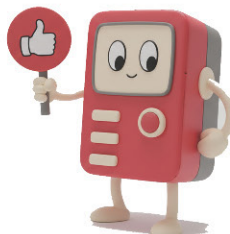
Cat. No.	BPC2000	BPC1000	BPC0500	BPC0250	BPC0125	BPC0060	BPC0030	RPC1000	RPC0500	RPC0300
Autoclavable Polycarbonate	Square Media Bottles							Boston Round Media BottlesSeries		
Size / Volume	2000 mL	1000 mL	500 mL	250 mL	125 mL	60 mL	30 mL	1000 mL	500 mL	300 mL
Overhead	20% (400mL)	20% (200mL)	20% (100mL)	20% (50mL)	20% (25mL)	20% (12mL)	20% (6mL)	20% (200mL)	20% (100mL)	20% (50mL)
Closure	53B	38/430				24/415		38/430		
Cap Type	Standard Cap									
Cap Color	Blue									
Neck Diameter	47.50 mm	34.50 mm				21.50 mm	17.50 mm	34.50 mm		
Material	Flask: Polycarbonate / Cap: Polypropylene									
Autoclavable	Yes									
Sterile	No									
A• Base Diameter	115.00mm	92mm	73mm	59mm	54.4mm	40mm	38mm	98.50mm	81.00mm	71.00mm
B• Height (w/o Cap)	266.00 mm	213mm	172mm	139mm	103.7mm	80mm	60mm	215.50mm	174.50mm	141.00mm
C• Height (w/ Cap)	271.20 mm	218.7mm	177.7mm	147.7mm	109.5mm	82.1mm	62.1mm	221.20mm	180.20mm	146.70mm
Units / Pack	6	12		24				12		24
Packs/Case (Total Units)	4(24)	4(48)	6(72)	4(96)	6(144)	8(192)	12(288)	4(48)	6(72)	4(96)

Laboratory Bioreactor / Fermentor

Winpact Mass Flow Controller (FS-O-MF Series, Optional)



FS-O-MF series



Winpact One (FS-06 Series)



1L Double Jacketed Vessel

1L Single Wall Vessel

FS-06

- Control up to 16 systems from a single interface

Winpact Evo (FS-07 Series)



FS-07

5L Air Lifter Vessel

5L Single Wall Vessel with Heating blanket

The composition of gas is important for microorganism/cell culture. To maintain different gases at a defined flow rate during bioprocesses, Winpact Mass Flow Controller can provide accurate and stable flow measurement and control.

Mass flow controller (MFC) is a precise device which is used to control a specific type of liquid or gas at a particular range of flow rates. MFC is composed of block, flow-splitter or bypass, sensor, printed circuit board (PCB), and control valves.

When gas flows into MFC, the sensor will detect its real volume and compare with the setting value (standard value). If the detection value is lower than setting value, the inner control valve will open slightly for increasing the input flow. Conversely, if the detection value is higher than the setting value, the inner control valve will close slightly to reduce the input flow. Consequently, MFC is able to adjust the flow automatically and precisely.

Overlay (headspace aeration) control is crucial for some fermentation processes process. Winpact Mass Flow Controller also can sparge different gases into the vessel though the headspace and the sparger at the same time.

Now, Winpact Mass Flow Controller could be integrated into Winpact Fermentation system and improves operational efficiency and creates stable environment for different culture conditions.

Features

- Affordable price
- Self-made, high quality accurate gas control guarantee

*For more information, please contact your local distributors.

Winpact Parallel (FS-05 Series)

- Control up to 16 systems (total 32 vessels) from a single interface



1L Double Jacketed Vessel

FS-05

10L Single Wall Vessel with Heating base unit

- Fully integrated system specifically designed for solid-state fermentation research involving saccharification, hydrolysis and more.
- Programmable angle-adjustable (0-90° for culture control, 120° for harvest control) vessel tilting and stirring mechanism permits superior sample homogeneity.
- Impellers are designed to reduce stickiness and it ensures sample integrity during the fermentation process.
- Integrated motor shaft & air sparger assembly creates precise, disturbance-free controls of aeration and mixing.
- Chemically resistant double jacketed borosilicate glass vessel design.
- Can be used with pH and DO probes to control culture conditions(anchor type impellers only).
- Customizable impellers and aeration controller available.

5L Solid State (FS-V-SA05P)



*0°- 90° rotation, 120° for harvest

**The minimum speed varies from 1-5 rpm depending on the medium viscosity.

*For more information, please contact your local distributors.

*10L solid state vessel is fixable angle 30° only

* All images are for reference only, actual products might differ from the pictures above.
* Technical specifications subject to change without notice.

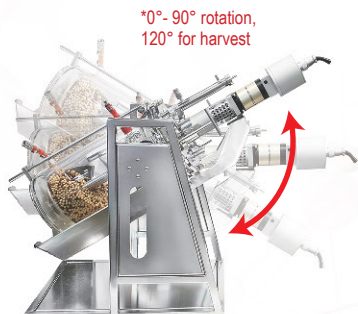
Winpack Solid State Fermentation System, FS-V-SA05P

Solid state fermentation (SSF) can be used for enzyme, antibiotics, biofuel, and organic acid production in the food, pharmaceutical, cosmetic, industries, etc. One of the features for Solid state fermentation is to create low water level cultivating conditions for fungus, mold, filamentous fungi, and some bacteria growth. Winpack Solid State Fermentation system is designed for the laboratory scale research to get excellent results. It is featured with a 10.4" color touch screen, user-friendly interface and 4 built-in peristaltic pumps on the Linux based operation system. An automatic vessel angle control mechanism provides an outstanding mixing efficiency for solid state material research. This system is suitable for both aerobic and anaerobic fermentation with three kinds of impellers available (Broken, Anchor and Spiral type).

Features

- Fully integrated system specifically designed for solid-state fermentation research involving saccharification, hydrolysis and more.
- Programmable angle-adjustable (0-90° for culture control, 120° for harvest control) vessel tilting and stirring mechanism permits superior sample homogeneity
- Impellers are designed to reduce stickiness and it ensures sample integrity during the fermentation process.
- Integrated motor shaft & air sparger assembly creates precise, disturbance-free controls of aeration and mixing
- Chemically resistant double jacketed borosilicate glass vessel design
- Can be used with pH and DO probes to control culture conditions (anchor type impellers only)
- Customizable impellers and aeration controller available

**The minimum speed varies from 1-5 rpm depending on the medium viscosity.



FS-V-SA10
10L Solid Vessel

*10L solid state vessel is fixable angle 30° only.



Impeller Type:

Broken



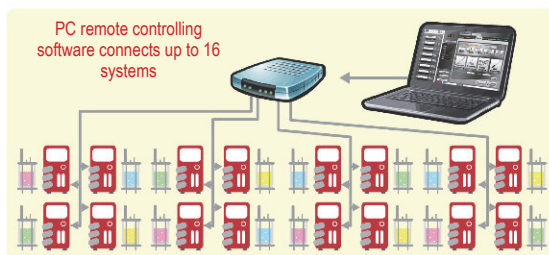
Anchor



Spiral



Vessel	Model	FS-V-SA03P	FS-V-SA05P	FS-V-SA10P
	Working volume	3L	5L	10L
	Total volume	3.8L	6.8L	12.5L
Control Unit	Control Panel	10.4" color touch-screen Interface, (Resolution: 800 x 600 pixels)		
	Communication Port	Remote control through Ethernet, Analog AUX port for system extension		
	Storage Program	Up to 59,994 programs for different kinds of condition.		
	Data Internal Storage	Up to 100 data files.		
	Data External Storage Interface	USB port		
	Cabinet Material	Front panel: ABS / Housing: Painted iron		
	Rated Voltage	110V~ / 220V~ ; 50/60 Hz		
Aeration	Inlet Gas Flow-meter	0, 1 – 6 LPM	0, 1 – 10 LPM	0, 1 – 20 LPM
Dimension	Dimension	Overall Diameter 315mm; Overall Height with Condenser 633 mm; Overall Height without Condenser 388 mm Dimension (with vessel holder) 430mm (L) x 730mm (W) x 780 mm (H)	Overall Diameter 350mm; Overall Height with Condenser 683 mm; Overall Height without Condenser 448 mm Dimension (with vessel holder) 430mm (L) x 730mm (W) x 780 mm (H)	Overall Diameter 385mm; Overall Height with Condenser 815 mm; Overall Height without Condenser 750 mm Dimension (with vesselstand) 1120mm (L) x 320mm (W) x 695 mm (H)
	Heating	Thermostat system: Built-in heat exchanger, 550W heater/water circulation pump		
Temperature	Cooling	Automatic cooling water valve		
	Range	5°C (41°F) above coolant up to 60°C (140°F)		
	Resolution	0.1°C		
	Control Mode	Manual or programmable 15-step PID control.		
	Drive	Removable top brushless motor		
Agitation	Speed Range	0, 1 – 60 rpm		
	Resolution	1rpm		
	Control Mode	Manual or programmable 15-step PID control.		
	Impeller	1. Broken type: FS-A-IM306	FS-A-IM305	FS-A-IM307
		2. Anchor type: FS-A-IM406	FS-A-IM408	FS-A-IM409
		3. Spiral type: FS-A-IM506	FS-A-IM507	FS-A-IM508
		(Select one from the above type, and only anchor impeller can be used with pH and DO probes)		
		*Note: Customized impellers are available.		
Vessel Swing	Angle Range	Normal operation: 0°~90°, adjustable time interval		Vessel stand with fixed angle 30° no rotating function.
		Harvest mode: 0°/ 120°		N/A
	Control Mode	Programmable control		N/A



Controller Specification

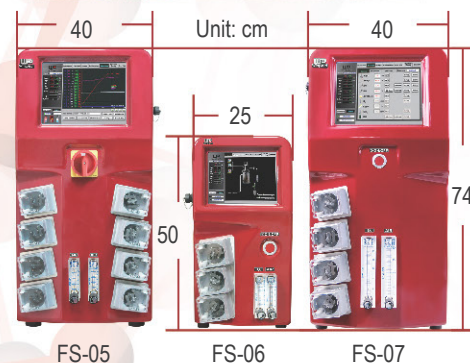
Controller	Duo Heating Control (FS-05, FS-06, FS-07)					
Vessel	Double Jacketed (FS-V-A Series)	Single Wall (FS-V-B Series)	Air Lifter (FS-V-C Series)	Single Wall with Heating Blanket (FS-V-B Series)	Single Wall with Heating Base Unit (FS-V-D Series)	Solid State (FS-V-SA Series)
Agitation Motor	Brushless motor	Brushless motor	N/A	Brushless motor	Brushless motor	Brushless motor
Impeller*	*Rushton-type; Pitched-blade	*Rushton-type; Pitched-blade	N/A	*Rushton-type; Pitched-blade	*Rushton-type; Pitched-blade	Broken type; Anchor type; Spiral type
Temp Range	5 °C above coolant to 60°C	5 °C above coolant to 60°C	Double Jacketed: 5°C above coolant to 60°C Single Wall: without temp control	5°C above coolant to 60°C	5°C above coolant to 90°C	5°C above coolant to 60°C
Vessel Size	500ml - 10L	1 - 10L	5L only, single wall or double jacketed	1 - 20L	3 - 10L	3L, 5L, 10L
Speed Range	*Rushton type 30-1800 rpm(0.5, 1L); 30-1200 rpm(3, 5L); 30-1000 rpm(10L) Pitched blade 30-300 rpm	*Rushton type 30-1800 rpm(1L); 30-1200 rpm(3, 5L); 30-1000 rpm(10L) Pitched blade 30-300 rpm	N/A	*Rushton type 30-1800 rpm(1L); 30-1200 rpm(3, 5L); 30-1000 rpm(10L); 30-700 rpm(15, 20L) Pitched blade 30-300 rpm	*Rushton type 30-1200 rpm(3, 5L); 30-1000 rpm(10L) Pitched blade 30-300 rpm	1-60rpm *The minimum speed varies from 1-5 rpm depending on actual medium density.
Heating	Built-in heat exchanger			Heating blanket	Heating base unit	Built-in heat exchanger
Cooling	External chiller, automatic cooling water valve					
Aeration	L-shape or ring sparger	L-shape or ring sparger	Micro-sparger	L-shape or ring sparger	L-shape or ring sparger	Center-located sparger
Grounding Port	No need	No need	Yes	No need	No need	No need
Application	Excellent for temperature sensitive and shear-force sensitive cells such as mammalian and insect cell culture	Great for aerobic or anaerobic microbial culture; suitable for plant cell and photosynthesis cell culture	Excellent for shear-sensitive cells; ideal for plant cells, fungal cells, algae cell and photosynthesis cell culture	Ideal for rapid temperature change aerobic and anaerobic microbial (bacteria and yeast) fermentation	Excellent for aerobic and anaerobic microbial (bacteria, yeast) culture, such as E.coli	Special for the culture of microbial in substrates with low water levels condition, generally suitable for fungi, such as filamentous fungi

Winpack Controller Selection Guide

*For FS-V-A, FS-V-B and FS-V-D Series, the standard impeller is Rushton type; Pitched blade is available for cell culture upon request.

Model	FS-05	FS-06	FS-06 + FS-06EPM*	FS-07
Product Name	Winpack Parallel	Winpack One	Winpack One	Winpack Evo
Heating System	Duo heating			
Working Volume Range	500ml - 20L	500ml - 10L	500ml - 10L	500ml - 20L
Autoclavable Glass Vessels	Yes			
Interchangeable Vessels	Compatible with all types of vessel, except for 5L solid state which is only usable with FS-05 and FS-07			
Number Of Vessels Controlled Per Controller	2	1	1	1
Number Of Vessels Controlled Via Remote Software	Max 32	Max 16	Max 16	Max 16
Touchscreen Controller	10.4"	8"	8"	10.4"
Number Of Peristaltic Pumps	8	3	3	4
Gas Mixing Station	Available	No	Available, *	Available
Oxygen Enrichment	Available	No	Available, *	Available
Mass Flow Controller	Available	No	No	Available
Off Gas Analyzer	Available	No	No	Available
ORP Probe	Available	No	Available, *	Available
Lighting Module	Available	No	Available, *	Available
External Pump	4 max.	1 max.	2 max.	2 max.
Solid State	Available	No	No	Available

* Optional expansion module (FS-06-EPM) needed.



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* Technical specifications subject to change without notice.

	Vessel type	Double Jacketed Dish Bottom Vessel (FS-V-A Series)					
	Material	Borosilicate glass / 316L stainless steel for headplate and all fittings					
	Working volume **	500ml	1L	3L	5L	10L	
	Total volume Δ	1L	1.5L	3.8L	6.8L	12.5L	
	Vessel type	Single Wall Dish Bottom Vessel (FS-V-B Series)					
	Material	Borosilicate glass / 316L stainless steel for headplate and all fittings					
	Working volume **	1L	3L	5L	10L		
	Total volume Δ	1.5L	3.8L	6.8L	12.5L		
	Vessel type	Air Lifter Vessel (FS-V-C Series)					
	Material	Borosilicate glass / 316L stainless steel for headplate and all fittings					
	Working volume **	5L single wall			5L double jacketed		
	Total volume Δ	7L					
	Vessel type	Single Wall Dish Bottom Vessel With Heating Blanket (FS-V-B Series)					
	Material	Borosilicate glass / 316L stainless steel for headplate and all fittings					
	Working volume **	1L	3L	5L	10L	15L	20L
	Total volume Δ	1.5L	3.8L	6.8L	12.5L	18.7L	23.7L
	Vessel type	Single Wall Plain Bottom Vessel With Heating Base Unit (FS-V-D Series)					
	Material	Borosilicate glass / 316L stainless steel for headplate and all fittings					
	Working volume **	3L		5L		10L	
	Total volume Δ	3.7L		6.7L		13.1L	
	Vessel type	Solid State (FS-V-SA Series)					
	Material	Borosilicate glass / 316L stainless steel for headplate and all fittings					
	Working volume **	3L		5L		10L	
	Total volume Δ	3.8L		6.8L		12.5L	

** Suggested Max.

*10L solid state vessel is fixable angle 30° only

Δ Total volumes are approximate and may vary slightly.

• Winpact **EZScript software for advanced fermentation processes

** Winpact EZScript is a command software specifically designed with user-define programming capability to optimize and control of your process.

Bioreactor / Fermentor



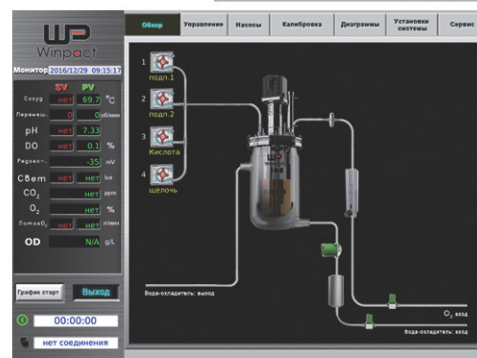
No software purchase necessary
Ethernet cable connection for remote control

*PC and switch hub are not included

Language Selection

- ☒ English
- ☐ Spanish
- ☐ Russian
- ☐ Japanese
- ☐ Traditional Chinese
- ☐ Simplified Chinese

Close Apply



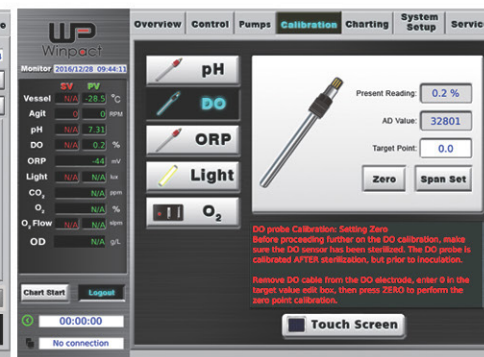
Multi-language operation interface (Russian language)



Charting
Real-time data recording and exporting



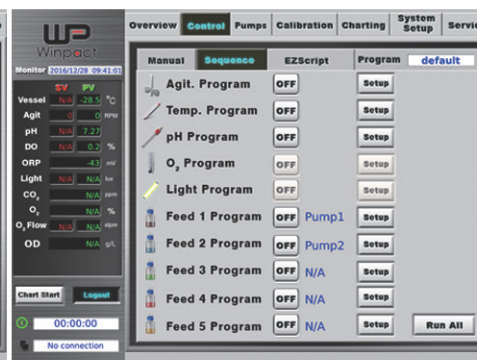
System Setup
Set up for optional devices



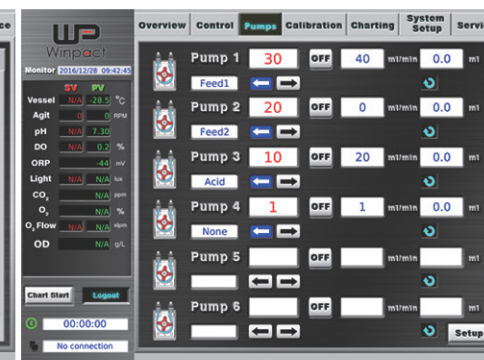
Calibration
Easy sensor calibration with assisted menu



Control / Manual
Manual operation, sequence or EZScript control (optional) of each parameter.



Control / Sequence



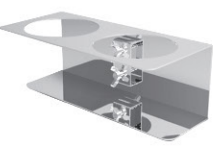
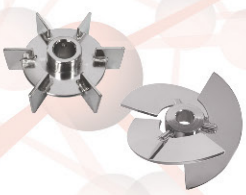
Pumps
Control speed, direction, total volume and flow rate

*Please visit our website at www.majorsci.com for more product selection and detailed information.

Optional Devices and Accessories

*Please visit our website at www.majorsci.com for more product selection and detailed information.

*Please contact major science for more information on other optional devices.

HAMILTON *major science Group is authorized agent for Hamilton				
		 NEW		
pH Probe	DO Probe	Dissolved Carbon Dioxide (DCO ₂) Sensors	CO ₂ / O ₂ Off Gas Analyzer	Gas Mixing Station
 NEW		 NEW	METTLER TOLEDO   	
Cell Density Sensors	Optical DO Probe	GlucoseSense(Glu) Optical Sensors	pH Probe	DO Probe
			ORP Probe	
				Gas Mixing Station with Mass Flow Controller
		 NEW Coming Soon...	 NEW	
Gas Inlet Control Module	Mass Flow Controller	Portable Off Gas Analyzer	Methane Off Gas Analyzer	Winpact Humidifier FS-O-HMD (solid state only)
				
Lighting Module	External Pump	Fermentation Bottle Holder	Motor Shaft Protection Cap	Stainless Steel Supporting Foot
	 NEW			
Composite Handle	Vessel Stand	Consumable Kit	Sample Device	Impeller
				
Probe Connector	Brushless Motor	Headplate Stand	Feeding Bottle Loading Port	Temperature Probe

Other Optional Devices:

- Antifoam Probe
- EZScript Software

- Impellers
 - Rushton 6 Blade Impeller
 - Pitched Blade Impeller
 - Foam Breaker
 - Broken Type Impeller (solid state only)
 - Anchor Type Impeller (solid state only)
 - Spiral Type Impeller (solid state only)

- Sampling Devices
 - Triport Sampling Device
 - Dual Ports Sampling Device
 - Ball Valve Sampling Device
 - Pneumatic Sampling Device

- Optical Density Sensor Modules
- Quad Loading Port
- Stainless Steel Condenser
- Protective Cover for Sterilization (solid state only)

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 * Technical specifications subject to change without notice.

Vessel Application

Vessel	FS-V-A Series	FS-V-B Series	FS-V-C Series	FS-V-B Series	FS-V-D Series	FS-V-SA Series
	Double Jacketed Dish Bottom Vessel	Single Wall Dish Bottom Vessel	Air Lifter Vessel	Single Wall Dish Bottom Vessel with Heating Blanket	Single Wall Plain Bottom Vessel with Heating Base Unit	Solid State
Mammalian cell culture	●●	●○	○○	●○	○○	○○
Aerobic microorganism culture (Note 1)	●●	●●	●●	●●	●●	○○
Micro-aerobic microorganism culture (Note 2)	●●	●●	○○	●●	●●	○○
Anaerobic microorganism culture (Note 3)	●●	●●	○○	●●	●●	○○
Fragile cell culture (Note 4)	●●	●○	●●	●○	○○	○○
Photosynthesis cell culture (Note 5)	●○	●●	●●	○○	●○	○○
Plant cell culture	●○	●○	●●	○○	○○	○○
Insect cell culture	●●	●○	○○	●○	○○	○○
Solid state / semi-solid state	○○	○○	○○	○○	○○	●●

●● Excellent

●○ Good

○○ Not recommended

Note:

1. Some bacteria; yeast; fungi
2. Facultative culture (i.e. some Lactobacillus; ethanol production)
3. Same as Note 2

4. This vessel is excellent for fragile cells, which easily sheared by any type of mechanical impeller

5. Plant; algae; cyanobacteria (blue-green algae)

Utility Equipment

Winpact Chiller, WCC-100/101



WCC-100

- Compact design
- Overheat protection
- LED display with PID control of 0.1°C resolution
- Self-diagnosed abnormality function
- Delayed resume compressor protection
- Jetstream forced-flow circulation

Ordering Information

Cat. No.	Product Description
WCC-100	Winpact Chiller, 110V
WCC-101	Winpact Chiller, 220V

Digital controller for easy operation



The Winpact Chiller Series is major science's newest addition to the bioprocessing technology portfolio to provide precise temperature control and excellent cooling performance for your fermentation needs and beyond. The recirculating chillers are compactly designed and require very little space; the built-on wheels offer an added bonus of mobility to any space-conscious labs. With a low procurement cost, it is your best option to stray away from costly tap water and is the perfect alternative for basic cooling needs.

Cat. No.	WCC-100	WCC-101
Display	LED Display	
Temperature control range	0°C to +100°C	
Temperature stability	± 0.5°C at 20°C	
Temperature accuracy	± 0.5°C at 20°C	
Controller	PID control, PT100 sensor	
Setting / display resolution	± 0.1°C	
Cooling capacity (Medium Ethanol)	1900 BTU/h @ 0°C	
Pump capacity flow rate (L/min)	5.5 L/min	
Hydraulic head	2.5 meter	
Pump capacity flow pressure (bar)	0.19 bar	
Pump connections	1/4" silicone tubing	
Barbed fittings diameter (inner dia. / mm)	6.35 mm or 1/4"	
Bath capacity	10 L	
Refrigerant	CFC free refrigerants-R134a	
Operating temperature	+20°C~+40°C	
Operating humidity	Max.80%	
Rated voltage	110V; 60Hz, 14.5A	220V; 50Hz, 8A
Chamber material	304 stainless steel	
Bath inner dimension	(W x L x H) 9.25"x11.61"x5.90" (235x295x150 mm)	
External material	Powder coating	
Compressor	1/4 HP	
Dimension	(W x L x H) 13.39"x22.04"x26.38" (340x560x670 mm)	
Weight	Approx. 110.2 lb (50 kg)	
Safety device	- Self-diagnosed abnormality display - Electronic overheating thermal fuse protection in increments of 0.1°C - Delayed resume compressor protection	
Circulation volume	Cycles up to 5.5 L/min cooling system with delayed resume protection after power outage	
Circulation type	Jet stream flow forced circulation, can be accessed through the outer loop	
Power	1000W	

(Pilot Scale)

SIP Fermentation System / Bioreactor

FS-50L (Approx. 130WX95DX295H cm)

* Customized vessel is available

30L / 50L System

Motor
Manual or automatic
control of constant
agitation speed

Peristaltic Pump
Uses four Watson Marlow built-in peristaltic
pumps for all your feeding needs

Control Station
Large screen and graphical user interface

Stainless Steel
Vessel
Special designed
heating jacket
provides better
heating efficiency



FS-30L (Approx. 130WX95DX275H cm)

* ASME standard

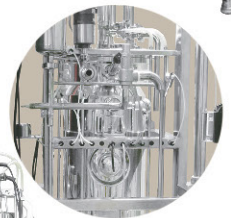


Automatic lifting
Approx. 40 cm

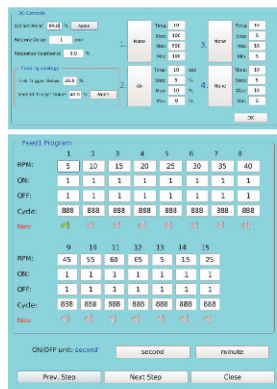
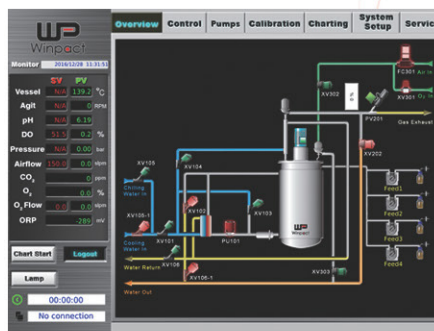


NEW

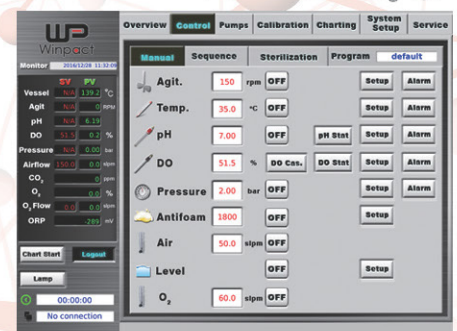
- Wide range of vessel selection, from 30L to 50L working volume
- Colorful interface at 10.4" or above
- Fully automated process with remote monitoring
- 15-step automatic program setting
- Orbital welding ensures minimal residue buildup
- Highest grade construction with 316L stainless steel
- Jacket design provides astounding temperature control
- Exhaust pressure relief valve for maximum safety precaution
- Multiple safety design integration for peace of mind operation
- Remote monitoring & controlling software free from purchase
- Password protection for multiple users with special requirements
- Various optional devices for process optimization and needs
- Ethernet communication with Winpact SCADA software, and IP address
- An electrical lifter device is available as an option.



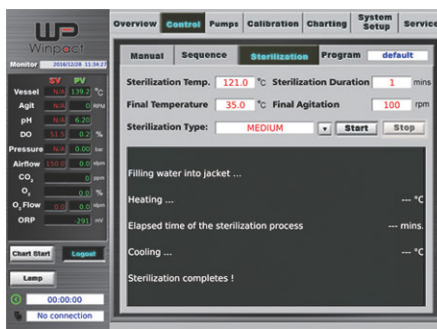
FS-50L

Four-staged
DO cascade15-Step
programmable
PID control

Immediate visualization on operation overview



Easy and intuitive operation for manual and sequence control

One-Touch automatic sterilization for vessel and
system tubing

Online system calibration with system feedback



System expansion with various optional devices

* All images are for reference only, actual products might differ from the pictures above.
* Technical specifications subject to change without notice.

SIP Fermentation System / Bioreactor (Pilot Scale)



Mechanical seal with auto generated lubricant and automatic cooling device

Harvest valve Sanitary level diaphragm type



Detachable aseptic feeding device



(Approx. 170Wx130Dx245H cm, Open distance of headplate lift : 60 cm)

100L System



Pump



Winpact

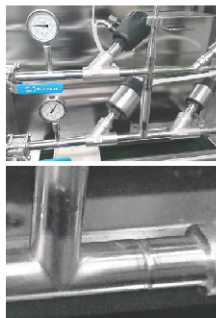
Winpact offers pilot and production scale bioreactor/fermentation systems for all of your large scale fermentation needs. Our standard SIP Production Scale Fermentation System is constructed with BPE standard piping with orbital welding and top grade automatic valves to allow stable and repeatable result for every experiment. All of our features are designed to provide a high level of productivity and automation while maintaining a low operation cost. All other great features including total sterilization process, mechanical seal break indication, golden vessel ratio design and complete selection of optional devices for optimizing the fermentation process.

* Operating ladder is optional.

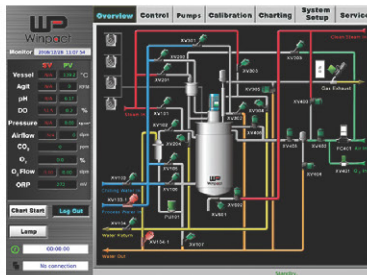


200L System

(Approx. 200Wx150Dx330H cm, Open distance of headplate lift : 40 cm)



- Pneumatic valves for accurate and automatic control
- Orbital welding provides top quality



Monitor page for operation overview



Automatic and manual operation



Automatic sterilization process



Online system calibration

Features

- Wide range of vessel selection, from 100L to 1000L working volume
- Multi-lingual 12" colored graphical control interface
- Fully automated process with remote monitoring
- 15-step automatic program setting
- Orbital welding ensures minimal residue buildup
- Highest grade construction with Stainless Steel SUS316L
- Hive jacket design provides astounding temperature control
- Exhaust pressure relief valve for maximum safety precaution
- Multiple safety design integration for peace of mind operation
- Remote monitoring & controlling software free from purchase
- Password protection for multiple users with customized access levels
- Various optional devices for process optimization and needs
- Ethernet communication with Winpact SCADA software, and IP address

Item	FS-100LS series
Capacity	100 L
Total volume	≈200 L
Working volume	50–100 L
Vessel and jacket maximum working pressure	Vessel: ≥3 bar (0.3 MPa) Jacket: ≥3 bar (0.3 MPa)
Type	Double layered fully enclosed capsule-type tank, with an outer temperature protective layer
Material	Product contact: SUS316L Non-product contact: SUS304
Ports	- Bearing assembly×1; - Safety valve×1; - Pressure sensor×1; - Mechanical pressure gauge×1; - Temperature port×1; - Sight glass×1; - LED light×1; - Charging×1; - Harvesting×1; - Sampling×1; - Feeding×4; - Spare×2
Controller	• Color touchscreen • Multi-level user authorization • Stainless steel enclosure • Maintenance & diagnostics • Automatic parameter backup • Power failure recovery
Setting	• Automated SIP sterilization • Automated fermentation program • Up to 15-step recipes • Manual/Automatic control • USB data logging
Temperature	• PT-100 sensor • PID control • 20–50°C • ±0.1°C accuracy
Humidity	• 0–100%RH measurement • 20–80%RH control • PID control
Agitation	• 1–10 rpm • Forward/Reverse • 15-step program • Auto stop when lid opens
Air supply and exhaust	• Dual aeration • 0.2 μm inlet/exhaust filters • Max airflow ≥200 L/min • Automatic exhaust valve
Pump	• 4 built-in peristaltic pumps • 10–80 rpm • Independent control
Pressure	• 0–4 kg/cm² measurement • 0–2 kg/cm² control • PID pressure control
Drying	Ambient or heated air drying up to ≥60°C
Piping and valve materials	Product contact: SUS316L Non-product contact: SUS304
Standard	ASME

SIP Fermentation System / Bioreactor (Production Scale)



* All images are for reference only, actual products might differ from the pictures above.
 * Technical specifications subject to change without notice.

500L System (Approx. 300Wx1900Dx360H cm)

1000L System (Approx. 330Wx340Dx450H cm)

(Production Scale)

*For system over 200L, please contact major science or authorized distributors for more information.

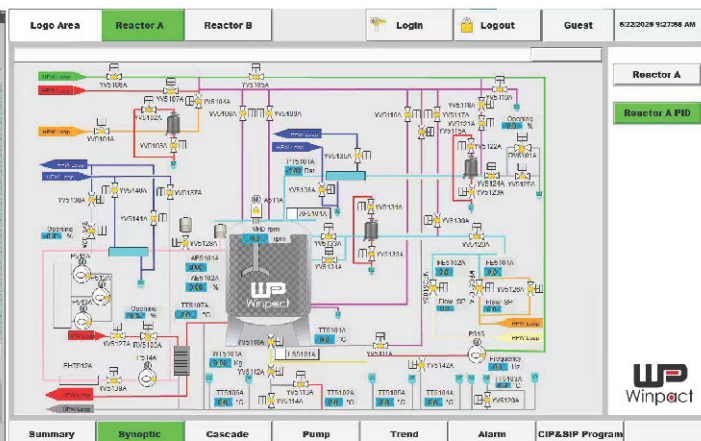
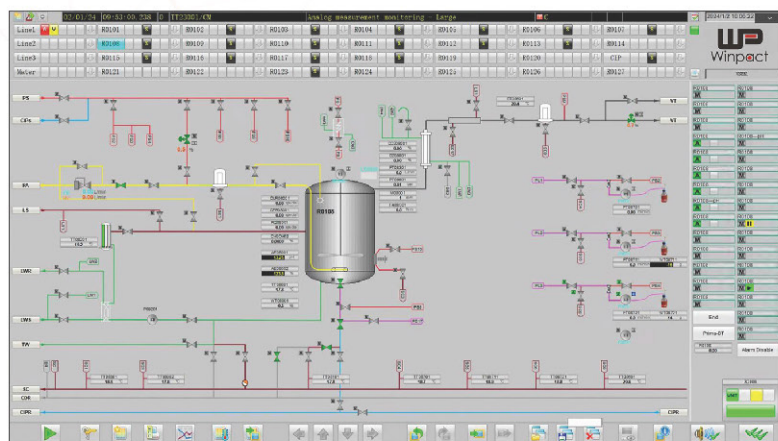


Capacity	30 L	50 L	100L	200L	500L	1000L
Total volume	42 L	67 L	120L	268L	660L	1350L
Working volume	30 L	50 L	100L	200L	500L	1000L



cGMP Fermenter/Bioreactor with Siemens S7 Series PLC Control System

NEW



*For reference only, subject to practice.

Winpact Chiller, WCC-201

NEW



WCC-201

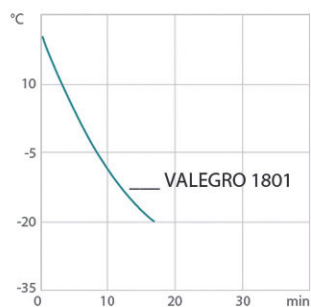
Coming Soon...

Cat. No.	WCC-201
Temperature Control Range (No-load)	-10°C~100°C
Cooling Capacity	Maximum is 1800W(1.8kW)
Temperature display resolution	0.01°C
Temperature Stability	±0.05°C
External Circulation Flow Rate	13L/min
Pump Head (Max.)	Maximum Head: 3 m
Pump Pressure (Max.)	approx. 0.29 bar
Refrigerant Type	404A or134A
Refrigerant Filling weight	220g
Tank Volume	20L
Tank Material	SUS304
Tank Depth(mm)	280
Tank Opening Size(mm)	235x160
Overall Dimensions(mm)	L380xW410xH990
Input Power	220VAC, 50/60Hz
Rated Power	2500W(2.5kW)
Working Medium	Pure Water or Anhydrous Ethanol
IP Code	IP43
Sound pressure level dbA	20
External Circulation Port Size	G1/2 male thread with optional barbed connectors for 8, 10, 12 mm outer diameter hose
Net Weight	Approx. 45kg

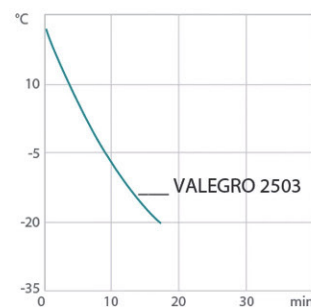
Julabo Recirculating Cooler



Julabo
THE TEMPERATURE CONTROL COMPANY



VALEGRO 1801



VALEGRO 2503

Brand	Julabo	
Cat. No.	VALEGRO 1801	VALEGRO 2503
Temperature Control Range (No-load)	-20°C~40°C	
Cooling Capacity	1.8 kW @20°C	2.5 kW @20°C
Temperature display resolution	0.1°C	
Temperature Stability	±0.3°C	
External Circulation Flow Rate	15-23L/min	15-40L/min
Pump Head (Max.)	Approx. 11 m	Approx. 35 m
Pump Pressure (Max.)	0.5-1.1 bar	0.5-3.5 bar
Refrigerant Type	R290	
Refrigerant Filling weight	80g	99g
Tank Volume	4-7L	3-8L
Tank Material	Stainless steel	
Overall Dimensions(mm)	L365xW525xH610	L430xW560xH430
Input Power	100-230VAC, 50/60Hz	220VAC, 50/60Hz
Working Medium	Pure Water or Anhydrous Ethanol	
IP Code	IP21	
Sound pressure level dbA	42~56	46~62
External Circulation Port Size	M16x1 male	M24x1.5 male
Net Weight	Approx. 43kg	Approx. 60kg

Shelf Type Vacuum Freeze Dryer

NEW

Name	Shelf Type Vacuum Freeze Dryer
Shelf temperature range	-55°C to +50°C
Condenser temperature	-65°C to 75°C (depending on load)
CFC-free refrigerants	R507 / R508A
Cooling	Air-cooled
Inner chamber material	SUS304 stainless steel with mirror polishing
Tray size	500 × 340 × 30 mm, SUS304, 1.5 mm thickness
Tray number	3 flat trays
Vacuum system	Oil-free vacuum pump, 833 L/min
Vacuum (no-load)	8.0×10^{-3} Torr (≈ 1.07 Pa)
control	PLC + HMI with temperature & vacuum control
Power	3Φ, AC220V/AC380V, 60Hz



* All images are for reference only, actual products might differ from the pictures above.
* Technical specifications subject to change without notice.

NEW

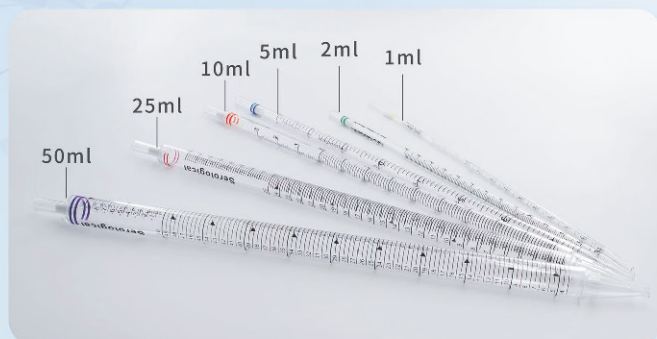
Life Sciences Research

At major science, we are developing a comprehensive network of innovative products and services. We are continuously broadening our scope for people researching life sciences to provide an effective source of instrumentation.

NEW

Pipette Aid, MSPC-100ML

Cat. No.	MSPC-100ML
Aspiration Speed	Aspirates 25mL in < 5 seconds (6-speed settings)
Dispensing Modes	Motor-assisted or Gravity Dispensing
Battery	Replaceable rechargeable Li-ion battery, 3.7V, 2000mAh
Battery Life	More than 12 hours of intermittent operation
Charging Time	Approximately 4–5 hours
Compatible Pipettes	Plastic or glass serological pipettes, 0.1–100 mL, including Pasteur pipettes
Filter	Replaceable 0.45µm hydrophobic filter disc
Weight	208g
AC Adapter	Input: 100~240VAC, 50/60Hz ; Output: 4.2VDC, 500 mA



*major science can also provide serological pipettes in six volumes (1, 2, 5, 10, 25, and 50 mL). They are sterilized by UV and individually packaged.

NEW

Chemiluminescence Imager, MS-ChemiDoc

- 10" Full-Color Capacitive Touchscreen: Intuitive and Smooth Operation
- Dual Mode (Physical Buttons & Touch-Free Gesture Control): Wave to operate the tray and prevent contamination
- Smart Status Indicators: Monitor imaging progress from a distance via ambient breathing lights
- Chemiluminescence Detection: Western Blot, Southern Blot, Northern Blot and other blotting experiments using substrates such as HRP, AP, etc.

Cat. No.	MS-ChemiDoc
Camera	Sony
Resolution	9 Megapixels CMOS
Lens	25mm, f/0.95
Quantum Efficiency (QE)	92% @ 540nm
Maximum Image Area	145 x 145mm
Pixel Size	3.76 x 3.76 µm
Readout Noise	0.9 e-
Cooling Temperature	-25°C @ Ambient 22°C
Chemiluminescence Sample Tray	Single-layer
Auto Exposure	Yes
Autofocus	Yes
Image Storage	Internal Hard Drive, USB
Storage	128 GB
Image	TIFF and JPG
Ethernet	Yes
Wi-Fi	Standard
Weight	Approx. 16kg
Instrument Size(WxLxH)	300×400×385mm



NEW**DNA Stains**NIPPON Genetics EUROPE
Midori Green AdvanceNIPPON Genetics EUROPE
Midori Green DirectNIPPON Genetics EUROPE
MIDORI Green XtraNIPPON Genetics EUROPE
MIDORI Green EasyMajor Red Plus stain
MRP-500

Nucleic acid staining dyes are vital tools for visualizing DNA and RNA in molecular biology researches, especially in applications such as gel electrophoresis.

major science offers advanced fluorescent dyes that deliver exceptional clarity, sensitivity, and safety. These dyes bind to nucleic acids and emit bright fluorescence under specific excitation light (UV light or blue/green light), enabling precise and reliable detection of your samples.

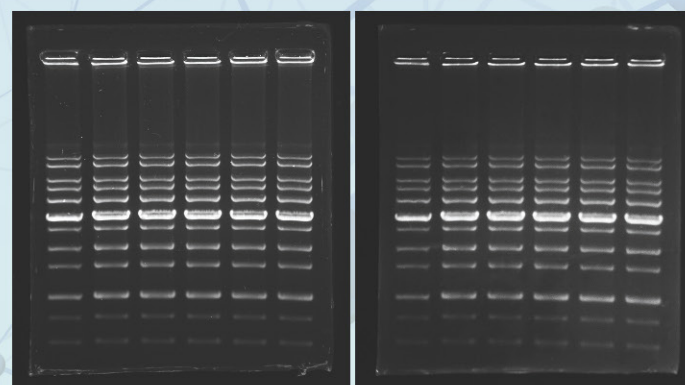
Our MIDORI Green Series and Major Red Plus provide high-performance, eco-friendly, and non-mutagenic alternatives to traditional stains like ethidium bromide (EtBr), ensuring powerful results without compromising laboratory safety.

	DNA Stains	Blue/Green LED	Blue LED	UV-Light	In-Gel	Poststaining	Direct
	MIDORI Green Advance (MG04)	✓	✓	✓	✓	✓	✗
	MIDORI Green Direct (MG06)	✓	✓	✓	✗	✗	✓
	MIDORI Green Xtra (MG10)	✓	✓	✓	✓	✓	✗
	MIDORI Green Easy (MG12)	✓	✓	✓	✓	✓	✗
	Major Red Plus (MRP-500)	✓	✓	✓	✓	✓	✓
✓ Compatible		✓ Compatible, but not recommended		✗ Not Compatible			

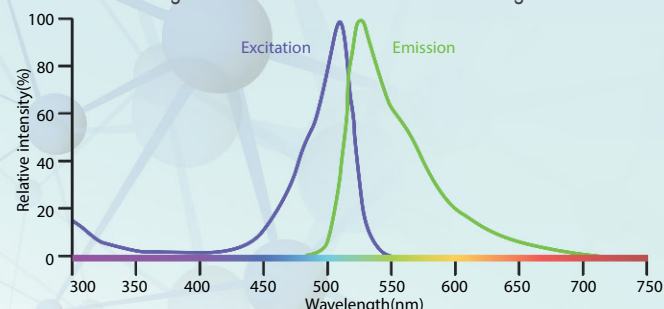
Major Red Plus stain, MRP-500**NEW**

10,000X solution in dimethyl sulfoxide (DMSO)

Cat. No.	MRP-500
Unit size	500µL
Vial	Light-protected brown cryogenic vial
Detection method	Fluorescence
Fluorescence	Green
Excitation	~280nm and ~502nm
Emission	~530nm
Presentation	Liquid
Application Note	Nucleic acid detection
Concentration	10,000X solution in dimethyl sulfoxide (DMSO)
Storage	12 months at 2~8°C; 18~24 months at -20°C



UVCI-2300 Blue light with Amber filter UVCI-2300 UV light with SYBR filter



- Non-toxic and no mutagenicity
- High sensitivity under blue light with an Amber filter and UV light with a SYBR filter
- Thermostable and suitable for in-gel staining
- High signal-to-noise with minimal background
- User-friendly, no destaining required
- Suitable for agarose/PAGE gels

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* Technical specifications subject to change without notice.

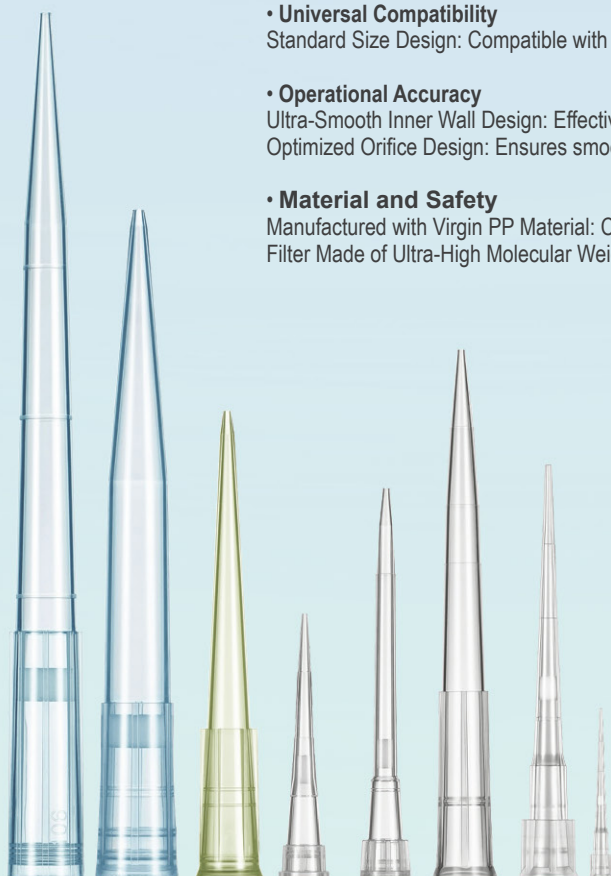
ECOS™ Competent Cells X 1-minute Transformation

Cost-saving · Highly efficient · Easy to use



NAME	STRAIN	Cat NO.	EFFICIENCY	SPECIFICATION	Application
ECOS™ 101	DH5α	FYE678 / FYE609	$>5 \times 10^8$; $>1 \times 10^9$	10/80 vials(100 µl/ vial)	Routine cloning
ECOS™ X	DH5α	FYE610	$>5 \times 10^9$	10/80 vials(100 µl/ vial)	Large plasmid/Phage Display/ Difficult cloning
ECOS™ BLUE	XL1-Blue	FYE107 / FYE108 / FYE109	$>1 \times 10^8$; $>5 \times 10^8$; $>2 \times 10^9$	10/80 vials(100 µl/ vial)	Blue & White screen
ECOS™ 21	BL21(DE3)	FYE207	$>5 \times 10^7$	5/40 vials(100 µl/ vial)	Protein expression
ECOS™ 9-5	JM109	FYE708 / FYE709	$>1 \times 10^8$; $>5 \times 10^8$	10/80 vials(100 µl/ vial)	Fast growth
ECOS™ 10B	DH10B	FYE508	$>1 \times 10^8$	10/80 vials(100 µl/ vial)	Large plasmid/cDNA library
ECOS™ 2163	GM2163	FYE807	$>5 \times 10^7$	10/80 vials(100 µl/ vial)	DAN Unmethylation
ECOS™ SONIC	BL21(DE3) Derived	FYE907-SONIC	$>1 \times 10^8$	5/20 vials(100 µl/ vial)	Routine cloning&Protein expression
ECOS™ SONIC pLysS	BL21(DE3) pLysS Derived	HYE007-A02	$>1 \times 10^8$	5/20 vials(100 µl/ vial)	Toxic protein & membrane protein expression
ECOS™ St	HB101 Derived	FYE307 / FYE309	$>1 \times 10^8$; $>1 \times 10^9$	10/80 vials(100 µl/ vial)	Lentivirus-related cloning (Stbl3™ substitution)

*major science is the general distribution partner of YEASTERN BIOTECH

NEW**major science Tip, MS-PW Series****• Universal Compatibility**

Standard Size Design: Compatible with a wide range of pipette brands commonly found on the market.

• Operational Accuracy

Ultra-Smooth Inner Wall Design: Effectively reduces residual liquid and enhances pipetting precision.

Optimized Orifice Design: Ensures smooth liquid flow without clogging.

• Material and Safety

Manufactured with Virgin PP Material: Complies with USP Class VI standards; excellent biocompatibility.

Filter Made of Ultra-High Molecular Weight Polyethylene (UHMW-PE): Ultra-pure, contaminant-free, and highly hydrophobic.

• Contamination Prevention

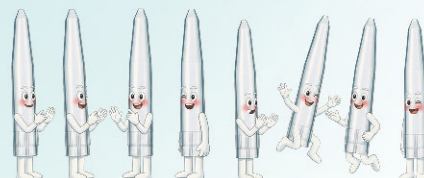
Hydrophobic Filter Design: Forms a barrier against aerosols to effectively prevent cross-contamination between samples and pipettes.

Clean Production Process: Free from DNase, RNase, and pyrogens.

• Thermal Resistance & Molding Technology

Wide Temperature Resistance: -80°C to 121°C; maintains shape after high-temperature sterilization.

Ultra-Fine Polished Molding Without Release Agent: Reduces chemical residues and ensures stable product quality.



**NEW**

Elite Dual Dry Bath Incubator, EL-01DT & EL-02DT series

NEW

Chemical Oxygen Demand COD Reactor, MS-COD

- PTFE coating for enhanced chemical resistance
- Suitable for high-throughput sample analysis
- Low maintenance requirements
- Rapid analysis
- User-friendly operation
- Excellent stability
- Fast heating



MS-COD

*Please see p.36 for details.



EL-01DT Series

EL-02DT Series

Cat. No.	MS-COD
Name	Chemical Oxygen Demand COD Reactor
Display	4.3" Colorful Touch panel
Temperature Range	Ambient+5°C ~ 200°C
Timer	1 ~ 9999 min/Continuous
Mode	Continuons / Timing / Programmable / Default Programs
Block	Single Block
Block Material	Anodized aluminum
Tube number	25
Well size	Ø16mm x 46mm, plain bottom
Rated Voltage	110V/220~, 50/60Hz

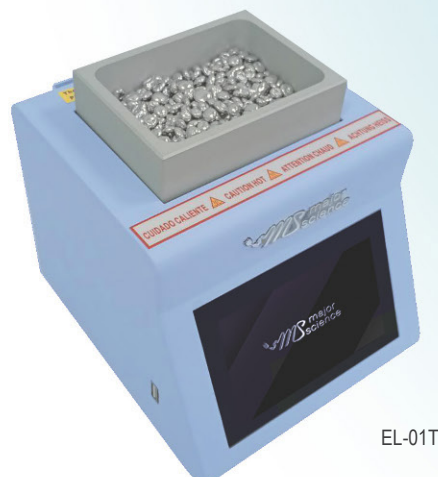
NEW

Elite Dry Bath Incubator, EL-01T & EL-02T series

- 4.3" color touch screen for instant observation
- Digital microprocessor controller confers performance and precise control
- Broad temperature control range & guaranteed uniformity
- Excellent heating rate
- User temperature calibration
- Can be used as a water bath or bead bath
- Molded aluminum alloy chamber



EL-02T



EL-01T

Cat. No.	EL-01T (Single Block)	EL-02T (Dual Block)
Display	4.3" color touch screen	
Power	125W	200W
Dimension (WxLxH)	Approx. 152x150x135mm	Approx. 152x230x135mm
Controller	Digital microprocess controller	
Heating Chamber	Molded Waterproof aluminum alloy coated with PTFE	
Temperature Control Range	5°C above ambient to 150°C**	
Temperature Increment	0.1°C	
Temperature Uniformity	± 0.2°C at 37°C	
Temperature Accuracy	± 0.2°C at 37°C	
Temperature Calibration	Yes	
Timer	99 (hr): 59 (min) / Continuous	
Safety	Leak proof heating chamber	
	Over temperature protection	
	SSR failure detection	
Operating Temperature	Ambient to 40°C	
Special Feature	Used as water bath or bead bath incubator	
Block Material	Aluminum alloy	
Block Type	Standard and customized type are available	
PC Connection	RS232	
Rated Voltage	110V / 220V~	
Weight	Approx. 4.6lb (2.1kg)	Approx. 6.1lb (2.8kg)

* All images are for reference only, actual products might differ from the pictures above.
 * Technical specifications subject to change without notice.

Power Supply

major science offers 3 models of power supplies constructed with microprocessor controller and 4 pairs of outlet terminals which covers the broadest range of application in general laboratory.



MP-310 / MP-320 / MP-510

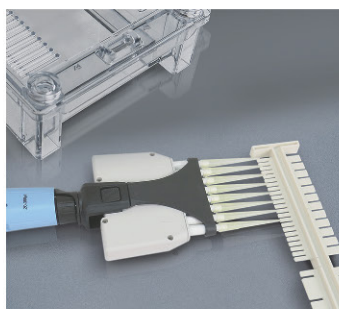


Stackable case



Four pairs of outlet terminals

Cat. No.	MP-100	MINI-300	MINI-500	MP-310	MP-320	MP-510
		 FC CE ETL	 FC CE ETL	 FC CE ETL	 FC CE	 FC CE
	Display	N/A	LED		2.4" TFT LCD	
	Output voltage / Inc.	50V/100V	10-300V/1V	10-500V/1V	5-300V/1V	
	Output current / Inc.	400mA	10-400mA/1mA	1-400mA/1mA	1-700mA/1mA	10-3000mA/10mA
Output power / Inc.	40W	60W	120W	Output: 150W Input: 200W	300W	
Output type	Constant voltage	Constant voltage/Current		Constant voltage/Current /Power		
Timer	N/A	999 (min) with alarm/Continuous		Constant mode:9999 (min) with alarm/Continuous Programmable mode: 999 (min) with alarm/Continuous		
Rated voltage	100V-120V~ Only	100V-240V~				
Program	N/A	2-steps (V, mA, ⌚)		Pre setting; Up to 6-steps (V, mA, W, ⌚), 30 programmed files		



*Please visit our website at www.majorsci.com for more product selection and detailed information.

Nucleic Acid / Protein Electrophoresis/Blotting/Special Application

Wide / Mini Horizontal Gel Electrophoresis System



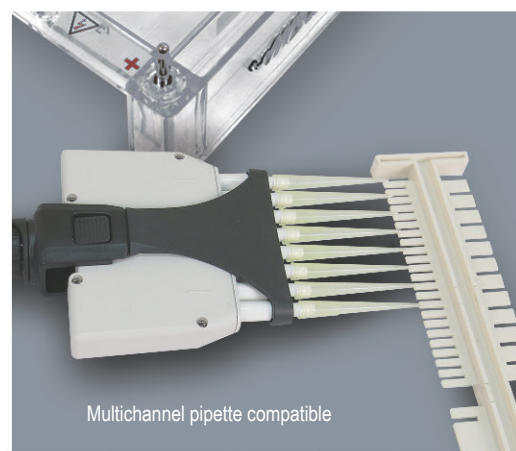
CE

The MJ-105A horizontal electrophoresis system offers many advantages for nucleic acid separation. Agarose gels are convenient to cast and samples are easy to load with this recognizable mini horizontal cell.

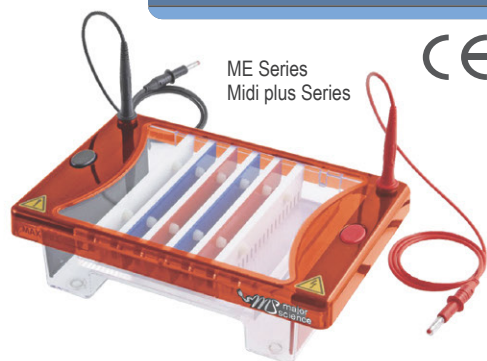


Mini Horizontal Gel MJ-105A

Cat. No	MJ-105A	MT-108
Dimension(mm)(WxLxH)	148.3x145.8x59.1	136x188x58
Gel dimension(mm)(WxL)	107x60	105x83
	52x60	50x83
Maximum sample	25 samples	
Rapid casting gel	Use gel maker stand	



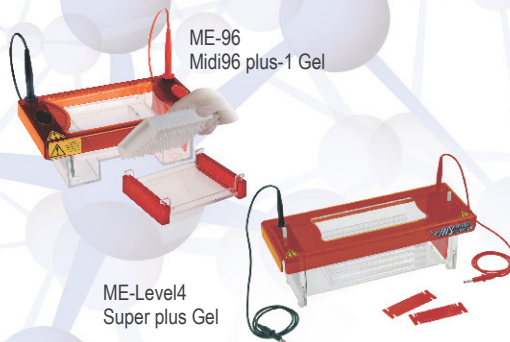
Midi Plus Gel Electrophoresis System



CE



Cat. No.	ME7-7-10	ME10-7-10	ME15-7-10-15
Dimension(mm)(WxLxH)	210x90x90	220x125x90	265x175x90
Gel dimension(mm)(WxL)	70x70	100x70	150x70
	70x100	100x100	150x100 150x150
Maximum sample each tray(mm)	32 for 70x70	50 for 100x70	70 for 150x70
Optional combs is required	64 for 70x100	100 for 100x100	140 for 150x100 210 for 150x150
Rapid casting gel	Use casting dams		



Cat. No.	ME20-10-20	ME26-16-24-32	ME-96	ME-Level4
Dimension(mm)(WxLxH)	395x230x90	500x280x90mm	220x125x90	350x110x160
Gel dimension(mm)(WxL)	200x100	10.2"x6.3" (260x160mm)	100x120	80x60 (Optional)
	200x200	10.2"x9.5" (260x240mm)		80x120 (Optional)
	200x250 (Optional)	10.2"x12.6" (260x320mm)		80x180
Maximum sample each tray(mm)	200 for 200x100	336 for 260x160mm	96 samples plus 1 or 2 marker lanes	10 / 20 / 30
Optional combs is required	450 for 200x200	504 for 260x240mm		run length:
	550 for 200x250 (Optional)	672 for 260x320mm		306 / 144 / 72
Rapid casting gel	Use casting dams	Use flexible caster	Use casting dams	N/A

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* Technical specifications subject to change without notice.

Vertical Gel Electrophoresis Apparatus



MV-10DSYS
Vertical Gel
Apparatus



MV-20WAVESYS Maxi WAVE Vertical



MV-10WDSYS
Mini Wide Vertical



MV-30DSYS
Maxi Plus Vertical

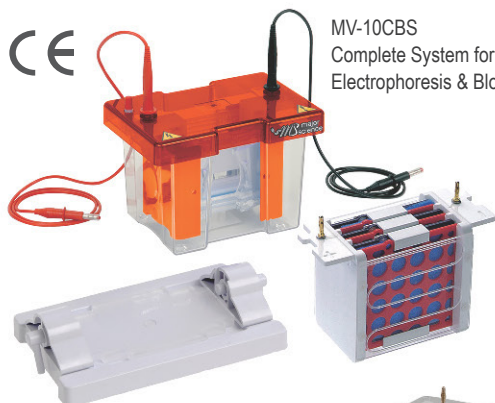


Cat. No.	MV-10DSYS	MV-20WAVESYS	MV-10WDSYS	MV-30DSYS
Dimension (mm)(WxLxH)	190x130x150	300x180x270	260x160x160	360x180x330
Plate dimension (mm)(WxL)	100x100	200x200	200x100	300x220
Gel dimension (mm)(WxL)	85x80	160x175	180x80	280x200
Maximum sample	80 / 20 samples per gel	192 / 48 samples per gel	192 / 48 samples per gel	300 / 75 samples per gel
Rapid casting gel	Use gel maker stand	Use gel maker stand	Use gel maker stand	N/A

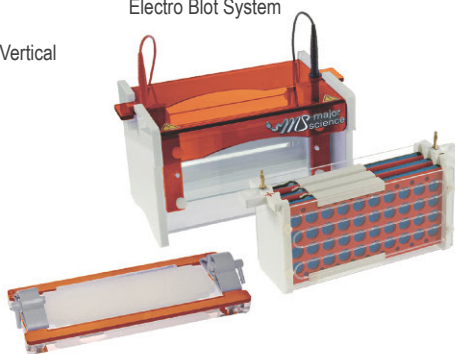
Blotting



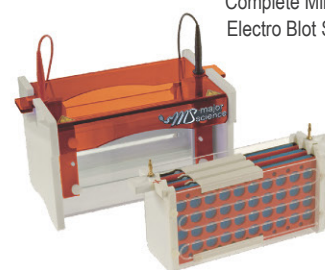
MV-10CBS
Complete System for Mini Vertical
Electrophoresis & Blotting



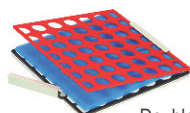
MV-10WCBS
Complete Mini Wide
Electro Blot System



MSB10W
Complete Mini Wide
Electro Blot System



MEBM Series
Mini / Mini Wide /
Maxi Electro Blot



Double hinged cassettes
for added convenience



MEBM20
Complete Maxi
Electro Blot System



MV-20CBS
Complete Maxi
Electro Blot System



Cat. No.	MV-10CBS	MEBM10	MEBM20
Dimension(mm)(WxLxH)	190x130x150	190x130x190	240x160x260
Plate dimension(mm)(WxL)	N/A	N/A	N/A
Gel dimension(mm)(WxL)	100x100	100x100	200x200
Maximum sample(mm)	4 blots, 100x100	5 Blots, 100x100	5 Blots, 200x200 20 Blots, 100x100

Cat. No.	MSD10	MSD20
Dimension(mm)(WxLxH)	160x160x70	260x260x70
Gel dimension(mm)(WxL)	100x100	200x200
Maximum sample(mm)	1 Blot, 80x85	1 Blot, 160x175 2 Blots, 160x85 4 Blots, 80x85
Buffer volume	5ml	20ml
Accomodate gel thickness	0.25-10mm	
Economic transfer	Yes	



Special Application

Cat. No.	MG-2131	MG-3545
Drying Area (WxL)	12.2"x8.3" (310x210mm)	17.7"x13.8" (450x350mm)
Display	Two of 4 digital LED	
Control	Digital Microprocessor Controller	
Temperature Control Range	Ambient to 90°C	
Temperature Increment	0.1°C	
Temperature Calibration	Yes	
Weight	Approx. 19.8lb (9.0kg)	Approx. 33lb (15.0kg)

CE

MG Series
Midi Gel Dryer



Cat. No.	MIEF
Max. Strip Length	Approx. 9.4" (240mm)
Max. Gel Dimension	Approx. 10.2"x10.2" (260x260mm)
Dimension (WxLxH)	Approx. 21.7"x13.8"x3.9" (550x350x100mm)
Focusing tray strip capacity	Focusing tray strip capacity : 12x 18 and 24cm strips; 24x 7 and 11cm strips
Operating temperature	4-25°C

CE

Flatbed IEF System,
MIEF

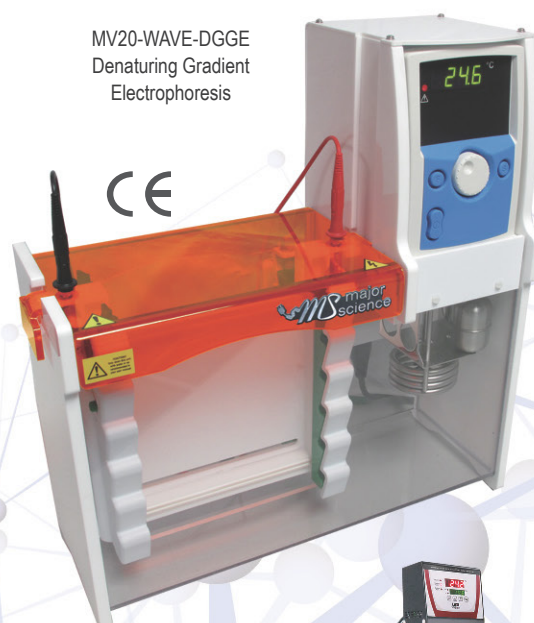


MSD Series
Semi Dry Mini and Semi Dry Midi



MV20-WAVE-DGGE
Denaturing Gradient
Electrophoresis

CE



WCC-100/101



* A coolant source (tap water or chiller water) is necessary for operation.

Cat. No.	MV20-WAVE-DGGE
Temperature Control	PID
Operating Temperature Range	Ambient - 100°C
Working Temperature Range (DGGE)	45-70°C
Buffer Recirculation Mechanism	Stirring
Temperature Uniformity / Stability At 37°C	±0.05 / 0.02°C
Setting / Display Resolution	0.1°C

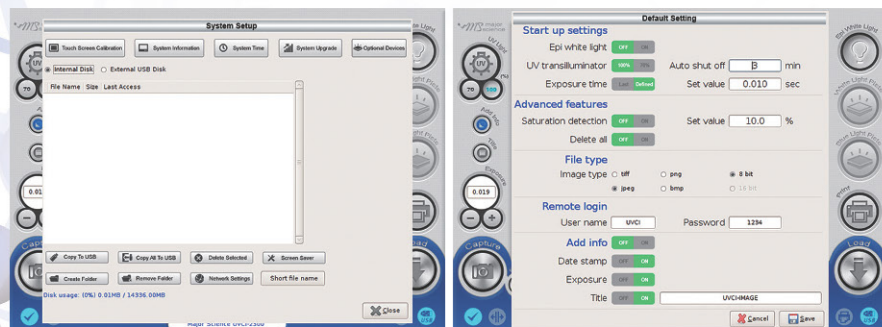
* All images are for reference only, actual products might differ from the pictures above.
* Technical specifications subject to change without notice.



Imaging System

SmartView Pro Imager

- Standalone gel doc system with high-quality monochrome CCD
- Exchangeable emission filters provide for instant visualization
- Intuitive 10.4" interface with color touch-screen
- Zoom-able lens for proper picture size
- Movable platform for gel excision with UV-protection shield
- Automatic UV shut off mechanism
- Optional trans white light and blue light plates



System setup

Default setting



UV light protection warning

Batch file management



SmartView Pro 2300



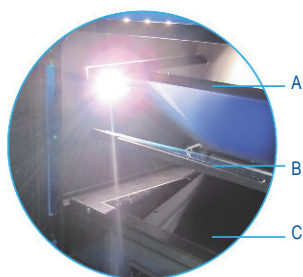
Blue light plate (UVCI-2300)

White light plate

Viewing via window

Viewing via screen

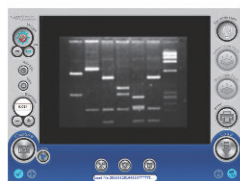
Viewing window



UVCI-2300

Flip-style:

- A. White light plate
- B. Blue light plate
- C. Drawer-type UV transilluminator



Control Interface



Model	SmartView Pro 2300
Cat. No.	UVCI-2300
Camera	1/1.8" interline UXGA monochrome progressive 2.0MP CCD
Pixels Size	4.4µm x 4.4µm
Lens (Camera)	F1.2, 12.5 – 75mm (with one +1 close-up lens), 6X zoom lens, manual
Camera Video Output	12bit
Filter (Camera) *Ordered Separately	Optical EtBr Filter / Optical SYBR Green Filter / Orange Amber Filter
Image Storage	Built-in 14GB Memory (3000 tiff images storage) and USB flash
Cabinet	Pull out, sliding transilluminator
Field Of View (WxL)	Maximum field of view 10.2"x8.3" (260x210mm)
Dimension (WxLxH)	Approx. 16.1"x16.7"x35.8" (410x425x910mm)
Weight	Approx. 62.8lbs. (28.5kg)
Display	10.4" Color Touch Panel, 800x600
Viewing Window	Built-in UV viewing window
Window Filter	Amber Filter embedded in viewing window (580nm)
Light Source	Built-in drawer type UV Transilluminator 312(302)nm build-in LED white light
Optional Accessory	White Light Plate (power built-in) Blue light plate (power built-in) 470nm
Saved Image	Max. 16bit
Grayscale	12bit, 0-4095 gray levels
Safety	CE
Rated Voltage	100-240V~, 50/60Hz

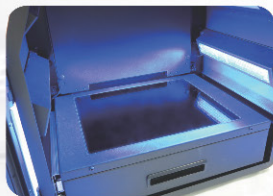
*Please visit our website at www.majorsci.com for more product selection and detailed information.

*MS 1D Analysis Software (MBE-IMG-SW) is included in UVCI-2300 for image analysis only.

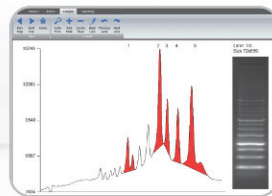
*Filters are necessary part for Gel Documentation System.

*All filters have to be ordered separately and discuss with local dealer before order.

SmartView Pro Imager, CMOS



Epi-blue light for optional light source



Gel image analysis software included for SmartView Pro

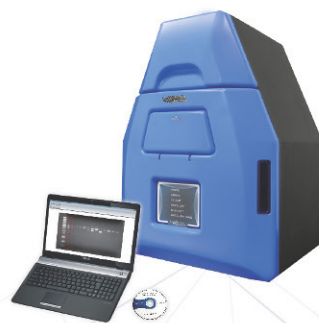
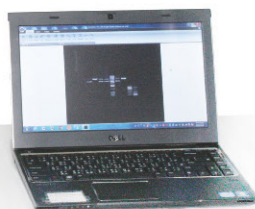


White light plate for protein analysis

FC CE



- Ergonomic design for easy viewing and operating
- Built-in mechanism for easy gel cutting
- Multi-image file saving selection: BMP, TIFF, JPEG and PNG
- Blue light technology for operation and environment safe lab experiment
- White light plate installation integration available (optional accessory)



NEW

Cat. No.	UVCI-1300
Camera	1/1.7" 12.0MP pixel monochrome sensor
Camera video output / Saved image	12bit
Max. aperture	f/1.2
Built-in UV transilluminator	Yes, 312nm (optional white or blue light available)
Image storage	PC only
Safety device Safety door switch	Safety device Safety door switch
Features	Image capture software included
	USB connects to a PC
	Connect to PC; PC required

* iPad and PC not included.

* MS 1D Analysis Software (MBE-IMG-SW) is included in UVCI-1100 for image capture and analysis.

* Filters are necessary part for Gel Documentation System.

* All filters have to be ordered separately and discuss with local dealer before order.



UVCI-1003
UV protection shield



MBE-G-Y1
Amber filter glasses



UVCI-1000-WL
White light plate



UVCI-1000-BL
Blue light module



UVCI-1100-EB
Optical EtBr
filter 610nm



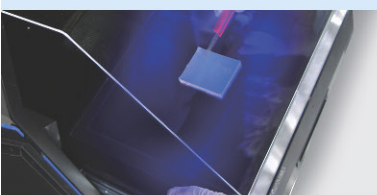
UVCI-1100-SG
Optical SYBR green
filter 520nm



UVCI-1100-F3
SmartView amber
filter 560nm



UVCI-1100-F4
SmartView amber
filter 580nm



Easy gel cutting design with UV light



Pull out UV transilluminator



USB connection



Viewing window

* All images are for reference only, actual products might differ from the pictures above.
* Technical specifications subject to change without notice.

Digimage System, DI-01

- Effective Pixels Approx. 24.2 megapixels (Total Pixels Approx. 25.8 megapixels)
- High resolution 8" TFT screen
- Digital control panel
- Compact chamber and lightweight
- Can be operated PC free
- Inner white light LED at two sides
- Safety door switch
- Optional gel analysis software package available
- Universal rated voltage: 100-240V~

*Could be bundled with MBE-200A.



White light plate
DI-WLA3 (297x400mm)
DI-WLA4 (210x297mm)
DI-WLA6 (105x150mm)



MBE-200A



DI-01

Cat. No.	DI-01
Camera / Lens	24.2MP digital camera, Wi-Fi function
Display / Control panel	Digital camera
Max. aperture	f/3.5-6.3 (IS STM Lens)

*Filters are necessary part for Gel Documentation System.

*All filters have to be ordered separately and discuss with local dealer before order.

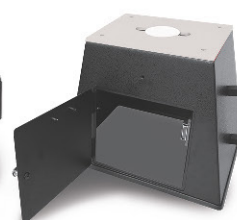
Simple Imager Hood for Cell Phone	DI-CP
Dimension (WxLxH)	Approx. 13.35" x 9.45"x9.45" (339x240x240mm)
Material	Painted metal
Filter Adapter	Aluminum
Filter (optional)	EtBr/SYBR Green/Amber
Weight	Approx. 12.9lb (5.8kg)

*For reference only, subject to practice.

DI-CP



*Cell phone is not included.

**Transilluminator****SmartView Transilluminator / UV Transilluminator**

- 312nm UV for gel observation; 254nm UV for irradiate samples; 365nm UV for gel cutting/imaging and avoid photonicking

*Please visit our website at www.majorsci.com for more product selection and detailed information.SmartView Transilluminator
MUVB-100 Series

UV Light applied



Blue Light applied



Removable amber filter

UV Transilluminator
MUV Series

*High performance UV light model also available.

Cat. No.	MUVB-111	MUVB-121	MUVB-122	MUV26	MUV21
Wavelength	single 312nm	dual 254 / 312nm	dual 254 / 365nm	254 / 312 (302) / 365nm	
Filter size (mm) (WxL)		210x210		260x210	210x210
Light source	8W x 5 tubes, with built-in UV light and 470nm Epi blue light	8W x 9 tubes, with built-in UV light and 470nm Epi blue light		8W x 6 tubes	
Intensity switch	High (100%) / Low (70%) intensity switch for single wavelength mode				



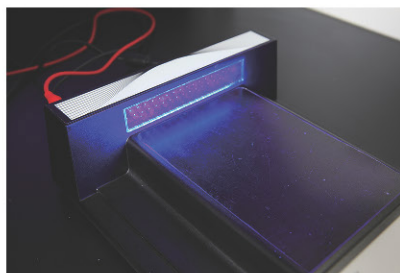
SafeBlue System

SafeBlue Electrophoresis System / SafeBlue Imager System



FC CE

MBE-150-PLUS



MBE-G-Y1



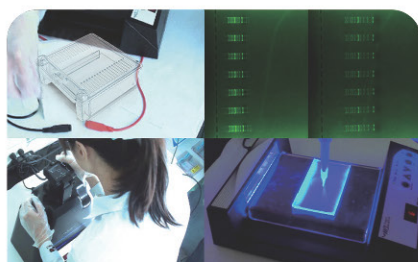
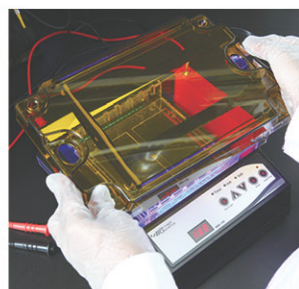
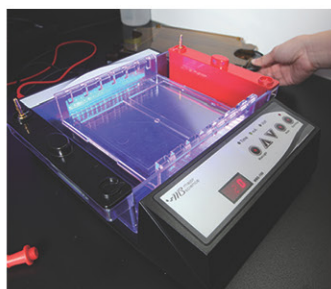
MBE-150-3



ME15-UV15-TH01



ME15-UV15-TH02



FC CE

MBE-150



Cat. No.	MBE-150	MBE-150-PLUS
Light control	On / Off switch	
Output voltage	10-150V / 1V	
Output current	10-300mA / 1mA	
Output power	30W	
Output type	Constant voltage or constant current	
Timer	999 (min) with alarm / Continuous	
Operating temperature	Ambient to 40°C	
Electrophoresis tank& amber filter lid	N/A	Yes

Cat. No.	MBE-IMG-CA
Camera type	24.2MP digital camera, Wi-Fi function
Aperture	f/3.5-6.3 (IS STM Lens)
Shutter speed	1/4000 - 30sec. (available range varies by shooting mode)
Storage media	SD memory card, Wi-Fi to PC, Smartphone or Tablet
Darkroom dimension	(WxLxH)340x195x400mm

SafeBlue System

SafeBlue Electrophoresis System + SafeBlue Imager System

2
for all

Gel and Sample Preparation

Electrophoresis Running

Sample Observation Image Capture

Traditional Method

Gel Electrophoresis System + Power Supply + Shaker + UV Transilluminator + Gel Documentation System

5
for all

4 in 1 feature allows you to run as you see in real-time motion (run, view, capture and cut gel) with simple and easy set up on the image capture/analysis software

MBE-150-PLUS Innovative Electrophoresis System

1. Early detection of running error (run as you see)
2. Prevention for breaking gel- no more gel transferring (no more gloves!!)
3. Time saving gel staining & de-staining
4. Compact in size (no large lab area required)

Blue Light Illuminator

Dual LED Blue/White Light Transilluminator, MBE-200BW

The advanced Dual LED Blue/White Light Transilluminator is packed with powerful and safe 470 nm blue LED light and whole-wavelength white LED light and allows you to directly view the experiment result without wearing any UV protection equipment.

- Combines blue & white full-spectrum LEDs, integrated on opposite sides of a flat-bed design
- Portable size & lightweight
- Safe & harmless 470 nm blue light wavelength for direct human contact
- Real-time observation
- Efficient & early mistake detection
- Ultra-high light uniformity & intensity
- Aluminum alloy casing design
- Low heat dispersion
- Energy saving product (Auto shut-off & LED light)



Cat. No.	MBE-200BW
Dimension(mm)(WxLxH)	Approx. 200x200x15.6
Viewing Area(mm)(WxL)	153x153
White Light Wavelength	whole-wavelength
Illuminator Base Design	Flat Bed
Blue Light Wavelength	470nm
Automatic Shutdown	Approx. 6 min
Material	Aluminum Alloy
Power	DC 12V, 2A
Weight	Approx. 935.5g

NEW



Both sides integrate different LED light source.

BluView Transilluminator, MBE-200A

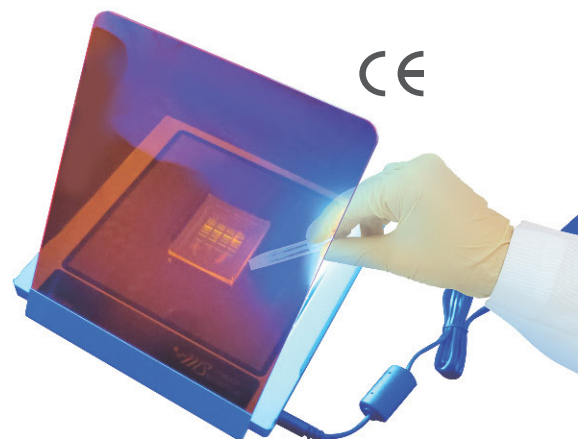
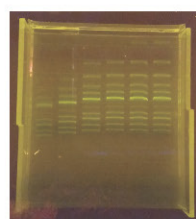
major science BluView Transilluminator uses the harmless blue LED lights to replace the aggressive UV lights, and allows you to directly view the experiment result without wearing any UV protection equipment.

- Thinner and more lightweight body
- Easy to carry
- Aluminum alloy casing design
- Low heat dispersion
- Energy saving product
- 470nm harmless blue light for direct human contact

Cat. No.	MBE-200A
Dimension(mm)(WxLxH)	Approx. 200x200x13.9
Viewing Area(mm)(WxL)	153x153
Blue Light Source	15W
Illuminator Base Design	Flat Bed
Blue Light Wavelength	470nm
Automatic Shutdown	Approx. 6 min
Material	Aluminum Alloy
Power	DC 12V, 2A
Weight	Approx. 760g



Aluminum alloy provides sturdy safe structure



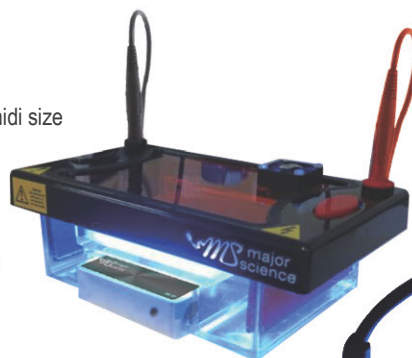
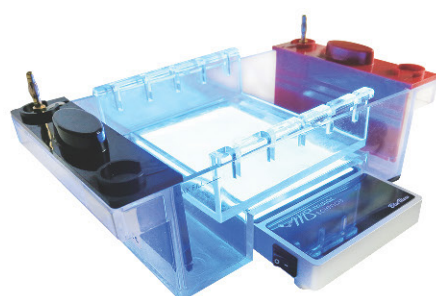
Blue Light Illuminator

BluView Transilluminator, MBE-300

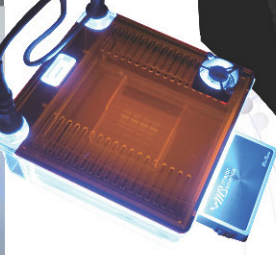
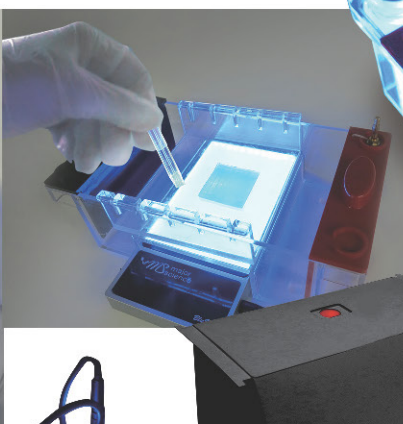
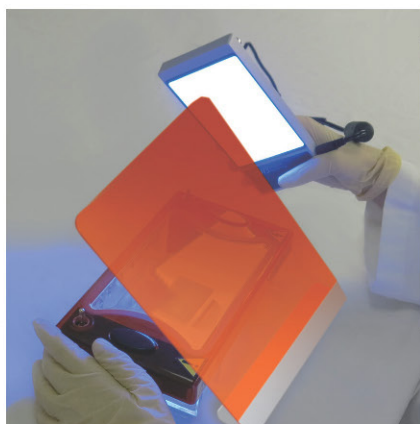
major science BluView Transilluminator uses the harmless blue LED instead of aggressive UV lights, and allows you to directly view the experiment result without wearing any UV protection equipment. With its compact size and light weight, the transilluminator occupies little of your lab bench and is easy to be moved from lab to lab.

Package with our Mini Horizontal Gel Electrophoresis System is available to perform real time observation and early mistake detection.

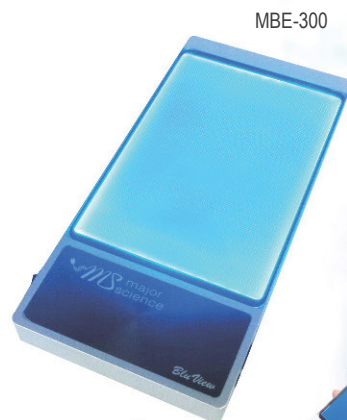
- Portable 470nm blue light
- Slim design fits in most of electrophoresis tanks
- Real time observation
- Efficient and early stage mistake detection
- Ultra high light uniformity
- Fit in a majority of different brands of mini and midi size



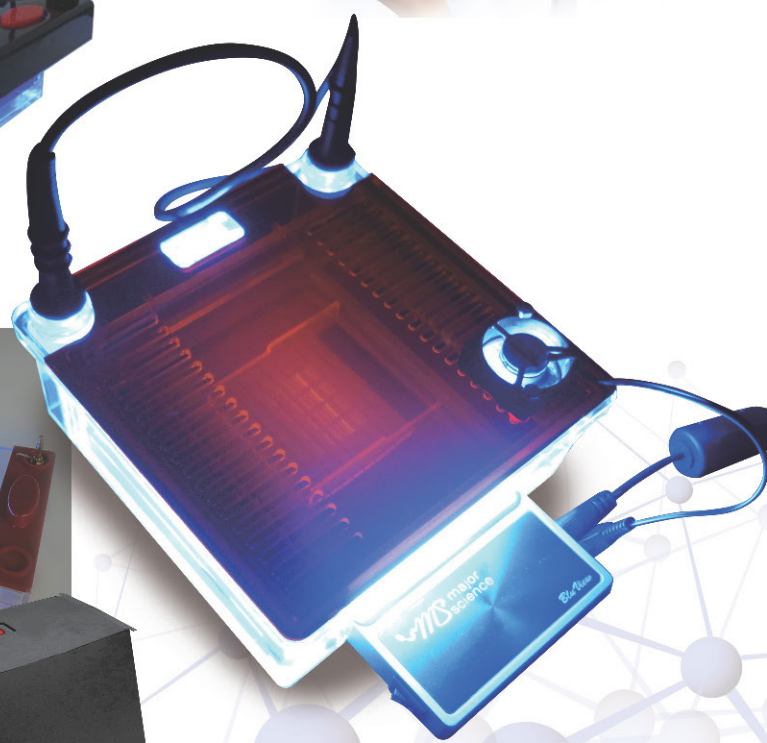
MBE-300 + ME10 Tank
horizontal electrophoresis
system



Cat. No.	MBE-300
Dimension(mm)(WxLxH)	Approx. 86x170x25
Viewing Area(mm)(WxL)	Approx. 112x74.6
Blue Light Source	20W
Illuminator Base Design	Flat Bed
Blue Light Wavelength	470nm
Automatic Shutdown	Approx. 6 min
Material	Aluminum Alloy
Power	DC 12V, 2A
Weight	Approx. 338g



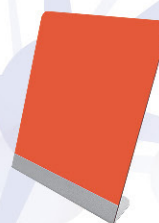
MBE-300



MBE-300 + MJ-105A



MBE-150-CABLE



MBE-LID-AM580



MBE-HOOD



MJ-105A



MJ-LID-AM580

* All images are for reference only, actual products might differ from the pictures above.
* Technical specifications subject to change without notice.

Dry Bath Incubator

Elite Dry Bath Incubator, EL Series

- 4.3" Color Touch Panel for instant observation
- Dual temperature control slot for individually control temperature
- Digital microprocessor controller confers performance and precise control
- Broad temperature control range & guaranteed uniformity
- Excellent heating rate
- User temperature calibration
- Can be used as a water bath or bead bath
- Molded aluminum alloy chamber
- Optional PC Control software available
- Compact design
- Multiple blocks for convenient replacement, easy to clean and disinfect.
- Customized blocks is available



FC CE



Elite Dual Dry Bath Incubator is designed for laboratory research, chemical applications, and environmental engineering, and is one of the most advanced dual dry baths on the market.

Cat. No.	EL-01DT-110	EL-01DT-220
Voltage	110V, 50/60Hz	220V, 50/60Hz
Display	4.3" Color Touch Panel	
Power	250W	
Controller	Digital microprocess controller	
Heating chamber	Molded waterproof aluminum alloy coated with PTFE	
Temperature control range	5°C above ambient to 150°C**	
Temperature increment	0.1°C	
Timer	9999(min) / Continuous	
Operating temperature	Ambient to 40°C	
Block material	Aluminum alloy	
Block type	Standard and customized type are available	
Thermometer well	Yes (except microplate blocks and bead dry bath blocks)	
Dimension (WxLxH)	Approx. 140x300x151mm	
Weight	Approx. 3.4kg	

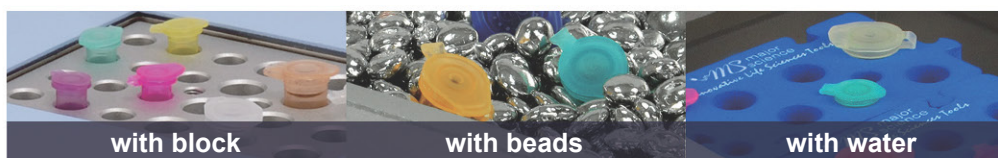
Cat. No.	EL-02DT-110	EL-02DT-220
Display	4.3" Color Touch Panel	
Voltage	110, 50/60Hz, T5A	220, 50/60Hz, T2.5A
Power	400W	
Controller	Digital microprocess controller	
Heating chamber	Molded waterproof aluminum alloy coated with PTFE	
Temperature control range	5°C above ambient to 150°C	
Temperature increment	0.1°C	
Temperature accuracy	± 0.2°C at 37°C	
Temperature uniformity	± 0.2°C at 37°C	
Timer	9999(min) / Continuous	
Operating temperature	Ambient to 40°C	
Block material	Aluminum alloy	
Block type	Standard and customized type are available	
Block Dimension (WxLxH)	Approx. 79x104x50mm for standard type	
Thermometer well	Yes (except microplate blocks and bead dry bath blocks)	
Overall Dimension (WxLxH)	Approx. 202x398x117mm	
Weight	Approx. 5.3kg	

**For prevent temperature difference effect and keep temperature stable, PQ is required in high temperature control mode(>=140 °C) or contact the local dealer before ordering.

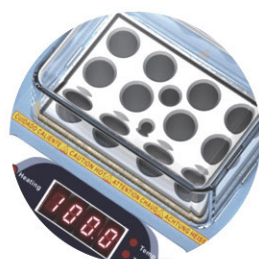
Cat. No.	EL-01	EL-02
Display	LCD	
Temperature control range	5°C above ambient to 150°C	
Temperature increment	0.1°C	
Temperature accuracy at 37°C	± 0.2°C	
Timer	99 (hr): 59 (min) / Continuous	
Dimension (mm)(WxLxH)	152x150x135	152x230x135

Dry Bath Incubator

- Molded aluminum alloy chamber with PTFE coating resists stains and water marks
- PID temp. control helps maintain temperature accuracy: no more temperature overshooting
- Safety device: over-heating protection & SSR failure detection (selected model only)
- Outstanding heating rate
- Temperature uniformity at $\pm 0.2^{\circ}\text{C}$
- User temperature calibration available for all units



Mini Dry Bath, MD-MINI



Cat. No.	MD-MINI
Display	LED
Temperature control range	5°C above ambient to 100°C
Temperature increment	0.1°C
Temperature accuracy	$\pm 0.25^{\circ}\text{C}$ at 37°C
Timer	9999 (min) / Continuous
Dimension (mm)(WxLxH)	153x125x97 (Lid included)

Mini Cooler, MC-0203



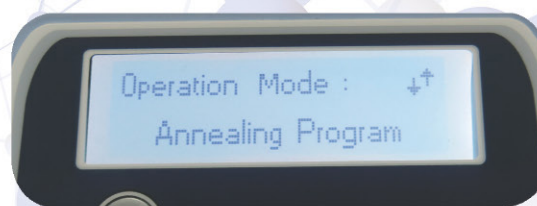
Cat. No.	MC-0203
Display	LCD
Power	max. 60W
Dimension (mm)(WxLxH)	135x152x185 (excluding lid)
Controller	High performance 32 bits microprocessor
Heating /Cooling chamber	Molded waterproof aluminum alloy coated with PTFE
Temperature control range	30°C below ambient temperature (minimum -10°C) to 100°C
Temperature increment	0.1°C
Temperature calibration	Yes
Heating rate	Max. 5°C per min
Cooling rate	Max. 4°C per min
Programmable	Yes (Quick start, Constant, Programmable, Annealing program)
Timer	9999 (min)
Safety	Leak proof heating chamber
Block type	Standard and customized type are available



MD-MINI-LID



MD-MINI-CAR-ADAPTER



Ultimate Dry Bath Incubator, MC-01



MC-01N

Cat. No.	MC-01N
Chamber dimension (mm) (WxLxH)	130x90x50
Display	2.6" LCD
Dimension (mm)(WxLxH)	200x295x140
Temperature control range	30°C below ambient temperature (minimum -10°C) to 100°C
Temperature increment	0.1°C
Temperature accuracy at 37°C	$\pm 0.2^{\circ}\text{C}$
Operation mode	Constant operation: constant temperature (-10°C to 100°C); Timer: 9999 (min)
	Program operation: 1-4 steps and up to 9 cycles; Timer: 9999 (min)
	Annealing program

* All images are for reference only, actual products might differ from the pictures above.
* Technical specifications subject to change without notice.

Genius Dry Bath Incubator, MD Series



The Genius Dry Bath Incubators come in either single or dual block models, along with a complete set of interchangeable blocks. It is designed for a variety of applications, including restriction digest, denaturing DNA melting agar, coagulation studies, hybridization and hot start thermo-cycled reaction.



Cat. No.	MD-01N	MD-02N
Display	LED	
Temperature control range	5°C above ambient to 150°C	
Temperature increment	0.1°C	
Temperature accuracy at 37°C	± 0.2°C	
Timer	999 (min) / Continuous	
Dimension (mm)(WxLxH)	200x298x88	

Thermostirrer, TS-8W



WCC-100/101

Cooling System
Connection Port

* A coolant source (tap water or chiller water) is necessary for operation.

major science thermostirrer series are equipped with built-in stirrers on the bottom of each well combined with excellent temperature control. Pre-configured long-durability motor for chemical compound synthesis, combinatorial chemistry, sample concentration, denaturation, derivatization, enzyme analysis and process optimization.

Cat. No.	TS-8W-110	TS-8W-220
Controller	Digital microprocessor controller	
Display	2.6" LCD monochrome display	
Motor	Brushless motor	
Number of position	8 wells (2x4) with individual magnetic stirrer **	
Well diameter	Ø29.5mm, 62mm depth **	
Stirring speed	500 - 3500rpm	
Temperature control range	5°C above ambient to 200°C	
Temperature increment	± 0.1°C	
Temperature uniformity	± 0.7°C @ 150°C	
Temperature accuracy	± 0.2°C @ 150°C	
Temperature calibration	Yes	
Operating temperature	Ambient to 40°C	
Timer	99 (hr): 59 (min) / Continuous	
Block material	PTFE coating with individual magnetic	
Safety	Insulated wells around casework	
	Leakage proof for heating chamber	
	Over temperature protection	
Rated voltage	110V~; 50/60Hz, 6.3A	220V~; 50/60Hz, 3.15A
Dimension (mm)(WxLxH)	230x300x160	
Weight	Approx. 8.5kg	
Power	600W	
Vessel diameter	Max. 28.5mm **	



- Microprocessor control with digital performance
- Brushless motor for individual well agitation
- Outstanding temp. control performance up to 200°C
- Well-insulation around casework
- Over temp. protection
- LCD screen & timer (standalone model only)

* Temperature uniformity would be dependent on the integration to your automation system.

** Customized Specification. Block customization available.

*Please visit our website at www.majorsci.com for more product selection and detailed information.

Dry Bath Block / Beads

*Customized blocks available.

The precisely machined aluminum alloy blocks deliver efficient heat transfer and are suitable for microplate and various test tubes ranging from 0.2ml to 50ml centrifuge tubes.

Dry Bath Block Specifications

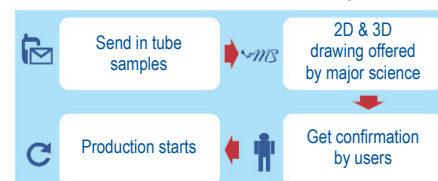
Cat. No.	Mini Dry Bath Blocks	Dry Bath Blocks	Ultimate Dry Bath Blocks
Block material	Aluminum alloy		
Dimension (mm)(WxLxH)	47x71x32 (MD-MINI-B01/02/05/06/07) 47x71x75(MD-MINI-B03/04)	87x128x62.3(MD-MP01-S) 104x158x50 (MD-MP01-D/ MD-MP02-D) 87x128x69.5(MD-MP02-S) 79x104x50(standard blocks)	89x129x46(standard blocks) 64.5x89x46 (MC-B0.2H/0.5H/1.5H) 89x129x30 (MC-B0.2+0.5/0.5+1.5)

Mini Dry Bath Block,
MD-MINI Series

Dry Bath Block, MD Series

Ultimate Dry Bath Block, MC Series

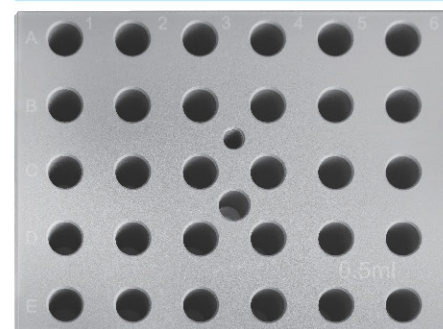
Flow chart for customization process:



Metallic Thermal Beads Specifications

Cat. No.	Metallic Thermal Beads
Properties	Metal composition
	Moisture and gas impermeable
	High thermal conductivity
	Smooth, rounded surface
Working temperature range	-80°C to 180°C
Size	Diameter 5-8mm, Height 1-2mm

Metallic thermal beads as an alternative to the dry bath aluminum blocks. The beads are dry metallic thermal alloy designed to replace water in a water bath and ice in an ice bucket.



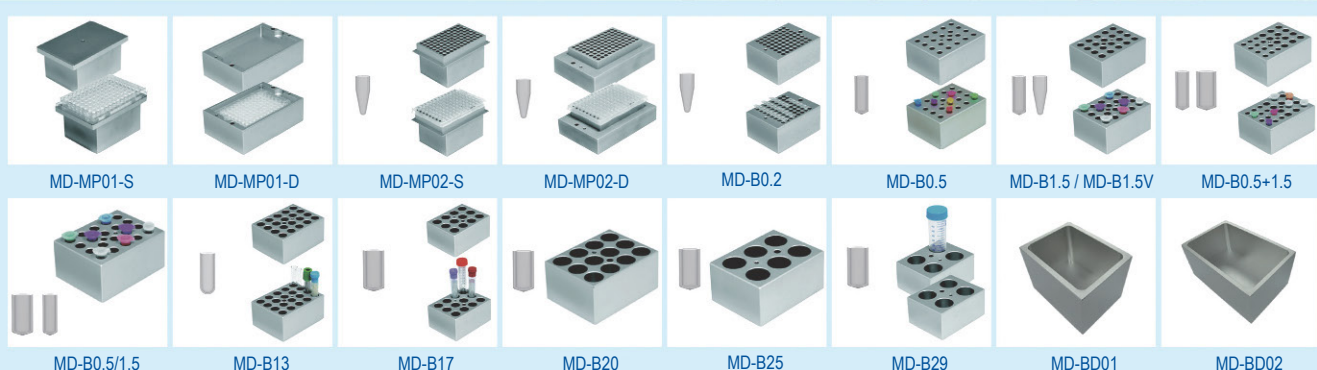
Mini Dry Bath Blocks



MD-MINI-B01	For 0.2ml tube (PCR strip tube), 32 wells, Ø6.35mm, depth 17mm, (WxLxH) 47x71x32mm
MD-MINI-B02	For 1.5ml tube, 12 wells, Ø10.88mm, depth 30mm, (WxLxH) 47x71x32mm
MD-MINI-B03	For 15ml tube, 6 wells, Ø17.3mm, depth 70mm, (WxLxH) 47x71x75mm
MD-MINI-B04	For 50ml tube, 2 wells, Ø29.0mm, depth 70mm, (WxLxH) 47x71x75mm
MD-MINI-B05	For 0.5ml tube, 12 wells, Ø7.9mm, depth 25mm, (WxLxH) 47x71x32mm
MD-MINI-B06	For 2.0ml or 1.5ml tube, 12 wells, Ø11.0mm, depth 30mm, (WxLxH) 47x71x32mm
MD-MINI-B07	For 2.0ml or 1.5ml tube, 12 wells, Ø11.0mm, depth 30mm, (WxLxH) 47x71x32mm
MS-BL95-E	Block Lifter, 95mm length with E-type retaining rings



Dry Bath Blocks

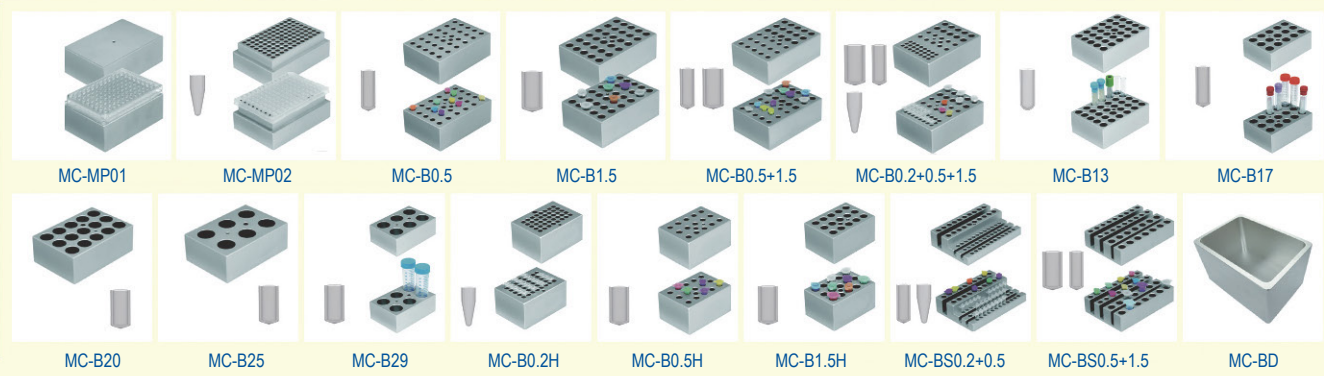


MD-MP01-S	For microplate; titerplate (Plain Block for Single Block unit only)	MD-B0.5/1.5	One side for 1.5 or 2.0ml tube, 20 wells and another side for 0.5ml tube, 30 wells (on the opposite side)
MD-MP01-D	For microplate; titerplate (Dual Block unit only)	MD-B13	Well size 13mm, 20 wells
MD-MP02-S	For 96 wells deep microplate or PCR plate (for Single Block unit only)	MD-B17	For 15ml centrifuge tube, 12 wells
MD-MP02-D	For 96 wells deep microplate or PCR plate (for Dual Block unit only)	MD-B20	Well size 20mm, 12 wells
MD-B0.2	For 0.2ml tube, 64 wells (or 0.2ml PCR strip tube for 8 wells x 8)	MD-B25	Well size 25mm, 6 wells
MD-B0.5	For 0.5ml tube, 20 wells	MD-B29	For 50ml centrifuge tube, 4 wells
MD-B1.5	For 1.5ml or 2.0ml tube, 20 wells	MD-BD01	Single bead MD dry bath block, (WxLxH) 79 x104x76mm
MD-B1.5V	For 1.5ml or 2.0ml V-shaped tube, 20 wells	MD-BD02	Dual bead MD dry bath block, (WxLxH) 104 x158x76mm
MD-B0.5+1.5	Combination: for 0.5ml tube, 12 wells; and for 1.5ml tube, 12 wells (on the same side)	MS-BL95-E	Block Lifter, 95mm length with E-type retaining rings
		MD-MINI-BD000	Metallic thermal beads for Mini dry bath incubator, for MD-MINI & MC-0203, 170g (Beads only)

*Please visit our website at www.majorsci.com for more product selection and detailed information.

* All images are for reference only, actual products might differ from the pictures above.
* Technical specifications subject to change without notice.

Ultimate Dry Bath Blocks



MC-MP01	For Microplate; titerplate (Plain Block)
MC-MP02	For 96 wells deep microplate or PCR plate
MC-B0.5	For 0.5ml, 30 wells
MC-B1.5	For 1.5 or 2.0ml, 30 wells
MC-B0.5+1.5	Combination: for 1.5ml or 2.0ml tube, 15 wells and 0.5ml tube, 15 wells (on the same side)
MC-B0.2+0.5+1.5	Combination: 0.2ml tube (or strip tube for 8 wells), 24 wells; 1.5ml or 2.0ml tube, 10 wells and 0.5ml tube, 10 wells (on the same side)
MC-B13	Well size 13mm, 30 wells
MC-B17	For 15ml centrifuge tube, 15 wells
MC-B20	Well size 20mm, 15 wells
MC-B25	Well size 25mm, 6 wells

MC-B29	For 50ml centrifuge tube, 6 wells
MC-B0.2H	(1/2) half block for 0.2ml tube, 40 wells (or 0.2ml PCR strip tube for 8 wells x 5)
MC-B0.5H	One Ultimate Dry Bath Incubator can insert 2ea of half block (1/2) half block for 0.5ml tube, 15 wells
MC-B1.5H	One Ultimate Dry Bath Incubator can insert 2ea of half block (1/2) half block for 1.5 or 2ml tube, 15 wells
MC-BS0.2+0.5	Combination: 0.2ml tube, 36 wells; 0.5ml, 20 wells
MC-BS0.5+1.5	Combination: 0.5ml tube, 18 wells; 1.5ml, 14 wells
MC-BD	Ultimate bead bath block, (WxLxH) 90 x127x76mm
MS-BL95-E	Block Lifter, 95mm length with E-type retaining rings

Stirring Water Bath

SWB Series



SWB-10LT

NEW



SWB-20LT

NEW

Our company's Stirring Water Bath Series packs with built-in thermostatic baths is an innovative line to provide precise temperature control and excellent mixing performance for a wide range of laboratory applications.

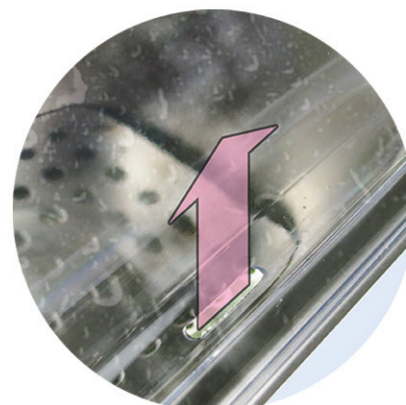
Illustrates max. chamber capacity only.



Max. capacity (10L)	
250ml flasks	6 sets
500ml flasks	4 sets



Max. capacity (20L)	
250ml flasks	15 sets
500ml flasks	8 sets



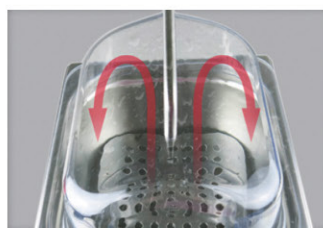
*Using as a water bath and the picture is only for reference.

SWB Series

Cat. No.	SWB-10LT-1	SWB-10LT-2	SWB-20LT-1	SWB-20LT-3
Display	4.3" Color Touch Panel			
Voltage	110V/220V, 50/60Hz			
Power	600W		800W	
Number Of Stirring Mechanisms	1	2	1	3
Controller	Digital microprocess controller			
Bath Tank Material	304 stainless steel			
Stirring speed	400-1500rpm			
Temperature control range	5°C above ambient to 99°C			
Temperature increment	0.1°C			
Temperature uniformity	± 0.2°C at 37°C			
Temperature Calibration	yes			
Timer	9999(min) / Continuous			
Bath Inner Dimension (WxLxH)	240x300x150mm		300x500x150mm	
Dimension (WxLxH) (without lid)	255x355x240mm		330x540x240mm	
Weight	Approx. 9kg		Approx. 14kg	



Side opening of the lid to allow minimum evaporation while maintaining water bath temperature.



Concave lid design allows condensation flow back to the tank.



Water circulation function

- Magnetic agitator
- Stir bar



Built-in magnetic stirring mechanism ensures outstanding temperature uniformity

- Microprocessor control with digital performance for precise, accurate control
- Stirring speed control
- 4.3" Color Touch Panel shows temperature and timer simultaneously
- User temperature calibration
- Safety device: warning indication on screen to avoid overheating and automatic shut down
- Multiple stirring mechanism capability
- Built-in magnetic stirring mechanism for water agitation, water temperature uniformity and medium solution mixing



Incubator

Microplate Shaker Incubator, MS-MPSI Series



MS-MPSS-B02



- Oscillation Frequency Speed Range : 200-1500 rpm
- Oscillation Amplitude and Parameters : 2mm Horizontal rotation
- 4 microplate or culture plate sample size
- Heating Film

Cat. No.	MS-MPSI Series
Capacity	4 pcs microplates/cell culture plates/deep well plates
Speed	200~1500rpm
Oscillating amplitude	3mm horizontal rotation
Time range	1min~99h59min
Heating method	Heated film
Temperature control range	RT+5~70°C
Module temperature uniformity	±0.5°C
Temperature display accuracy	0.1°C
Heating time	≤10min
Power	250W
Size	Approx. L350×W320×H200mm
Weight	Approx. 8kg
Input voltage	110V/220V;50/60Hz

* All images are for reference only, actual products might differ from the pictures above.
* Technical specifications subject to change without notice.

MS Mini Incubator

major science's Mini Incubator is designed for personal use and small laboratories, saving much of space. The unit features a broad temperature range to meet a variety of microbiology or hematology applications.



Cat. No.	MO-MINI
Display	LCD
Temperature Range	Ambient +5° to 70°C
Temperature Accuracy	± 0.2°C @ 37°C in center point
Capacity	17L
Exterior Dimension (WxLxH)	310x306x380mm
Interior Dimension (WxLxH)	261x255x255mm
Weight	Approx. 13kg
Power	100-240V~, 50/60 Hz, 2A
Material	Metal
PC Connection	USB

- Ideal for microbiology or hematology applications
- Corrosion resistant metal chamber
- Door with large viewing area
- Backlit colored touched panel
- One stainless steel shelf is included



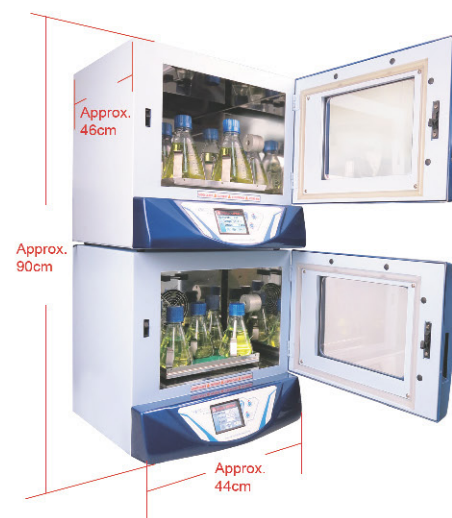
heating

MO-SH2524
Stainless steel
shelf for MS
Mini Incubator



MS Oven / MS Hybridization Oven

	MO-A01	MO-AOR	MO-ARC	MO-ARK
Cat. No.				
				
Display	Touch screen & graphical interface, 3.5" 64 K color TFT display			
Rotisserie / Speed	N/A	Yes (optional) 5-100rpm		
Shaker motion	N/A	Orbital clockwise / counterclockwise	Reciprocal	Rocking**
Shaker speed	N/A	0-200rpm	5-100rpm	
Temperature control range	Ambient +5°C to 85°C			
Temperature uniformity	± 0.2°C at 37°C			
Temperature accuracy	± 0.2°C at 37°C			
Inner chamber dimensions	(WxLxH) 340x225x260 (mm)			
Data logging	RS-232			
Heating Rate	25.5°C → 37°C: approx. 3 minutes (≈3.83°C/min) 37°C → 60°C: approx. 17.25 minutes (≈1.33°C/min) Heating time measured under standard ambient conditions.			N/A



- User temperature calibration available
- Timer with alarm function
- Safety door switch device
- Large color touch screen and graphical control interface for easy access and operation
- Various accessories available

**To perform rocking motion on optional accessories, MO-SEESAW is required.



heating



rotation



Orbital



Rocking



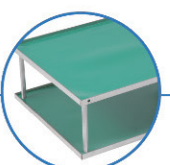
Reciprocal



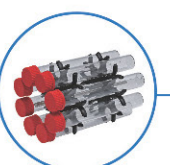
MO-01-PF



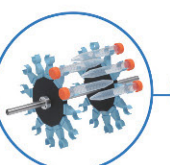
MO-SEESAW



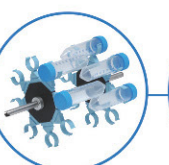
MO-P2320



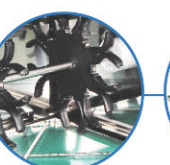
MO-BT Series



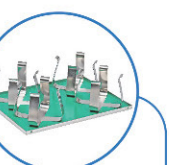
MO-HY-24RT



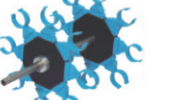
MO-HY-16RT



MO-HY-8RT



50-500ml flask holder
SI-200-08~11



*Note each accessory do not apply to all the models of MS oven. Please visit our website at www.majorsci.com for more details.

Shaker

Microplate Shaking, MS-MPS

NEW



MS-MPSS-B02



- Oscillation Frequency Speed Range : 200-1500rpm
- Oscillation Amplitude and Parameters : 2mm Horizontal rotation
- 4 microplate or culture plate sample size
- Time Setting : 1-99 hr 59 min

Cat. No.	MS-MPS
Input voltage	100~240V; 50/60Hz
Capacity	4 pcs microplates / cell culture plates /deep well plates
Speed	200~1500rpm
Oscillating amplitude	3mm horizontal rotation
Time range	1min~99h59min
Power	80W
Size	Approx. L340×W210×H145mm
Weight	Approx. 5kg

3D Mini Tray Shaker



MS-3D-TS

NEW

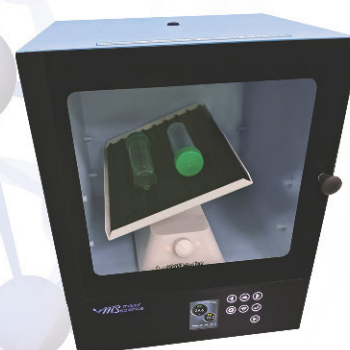
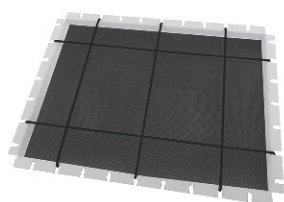


Cat. No.	MS-3D-TS
Angle	20 °
Movement	Three-Dimensional Movement
Speed range	0~27rpm
Speed display	scale (min/max)
Platform size	234 x 168 mm
Overall size	220×176×165mm
Max Loading	2 kg
Weight	1.7 kg
Power	20W
Input voltage	100~240V, 50/60Hz

- Could be compatibled with MO-MINI
- Three-Dimensional Movement

Cat. No.	Product Description
MS-3D-TS-001	3D Mini Tray Shaker

*Could be compatibled with MO-MINI.



* All images are for reference only, actual products might differ from the pictures above.
* Technical specifications subject to change without notice.

Variable Speed Vortex Mixer MS-VM Series

NEW



Auto Off Touch



MS-VM-001



MS-VM-002



MS-VM-003



MS-VM-004



MS-VM-005



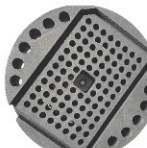
MS-VM-006



MS-VM-007



MS-VM-008



MS-VM-009



MS-VM-010



MS-VM-011



Model	Variable Speed Vortex Mixer
Cat. No.	MS-VM Series
Voltage	110V/220V, 50/60Hz
Power	60W
Movement	Orbital
Orbital Diameter	4mm
Speed Range	0-2800rpm, manual adjustment
Mode	Continuous(ON), Depressing(Touch), Stop(OFF)
Dimensions	W170×D120×H170mm
Weight	4.8kg
feet	4 Rubber Feet Pad
Standard Accessory	3" Round Rubber Flat Cover & Pop-Off Rubber Cup Head
Optional Accessory	15ml/50ml Tube Holder
	1.5ml/15ml/50ml Tube Foam Rack
	96-well PCR Plate Foam Platform
	96-well Microplate Foam Platform

The major science Vortex Mixer Series is an efficient and compact instrument for any routine mixing applications needed in the field of life sciences, chemistry, medicine, bioengineering, analytical and research laboratories.

This product includes the eccentric rotating structure to generate vortex flow in the liquid in test tubes centrifuge tubes, microplate and other containers and offers fully mixing the solution.

Choose from two modes of operation : continuous mode provide variable speed can allows low rpm start-up for gentle mixing or high speed mixing for vigorous vortexing of samples, touch mode which activates mixing when depressing the platform.

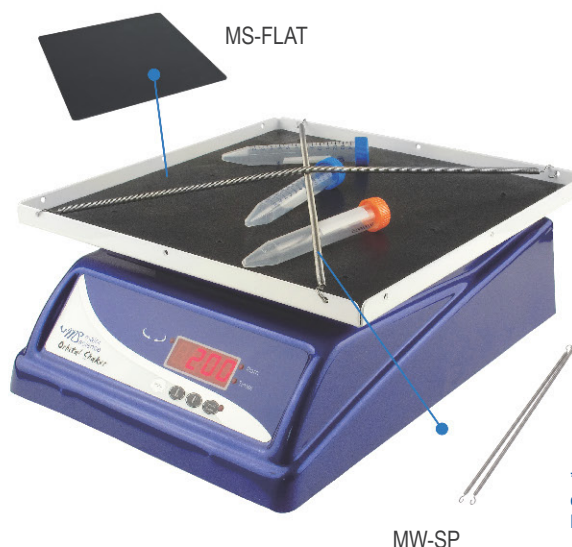
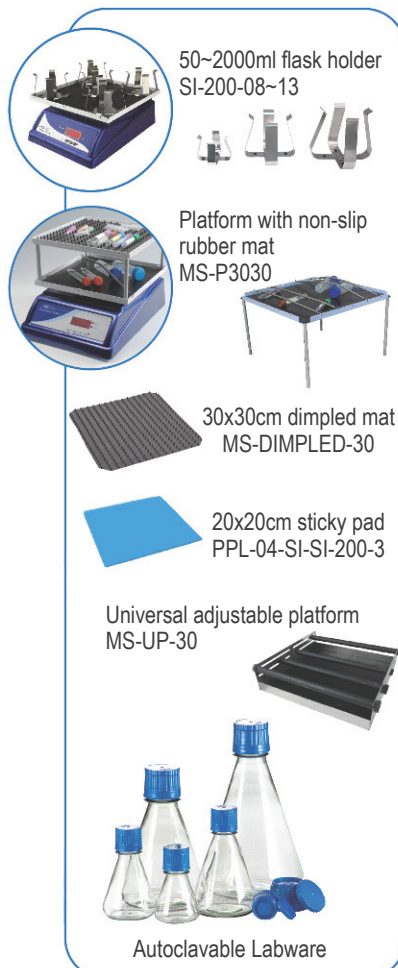
The major science Vortex Mixer Series is stable and reliable with reliable durability and also has a variety of accessories to choose from to adapt to different experimental needs.

Cat. No.	Product Description
MS-VM-110-US	Variable Speed Vortex Mixer with 3" Round Rubber Flat Cover & Pop-Off Rubber Cup Head, 110V, US Power Cord
MS-VM-110-JP	Variable Speed Vortex Mixer with 3" Round Rubber Flat Cover & Pop-Off Rubber Cup Head, 110V, JP Power Cord
MS-VM-220-EU	Variable Speed Vortex Mixer with 3" Round Rubber Flat Cover & Pop-Off Rubber Cup Head, 220V, EU Power Cord
MS-VM-220-UK	Variable Speed Vortex Mixer with 3" Round Rubber Flat Cover & Pop-Off Rubber Cup Head, 220V, UK Power Cord
MS-VM-220-IN	Variable Speed Vortex Mixer with 3" Round Rubber Flat Cover & Pop-Off Rubber Cup Head, 220V, IN Power Cord
MS-VM-220-CN	Variable Speed Vortex Mixer with 3" Round Rubber Flat Cover & Pop-Off Rubber Cup Head, 220V, CN Power Cord

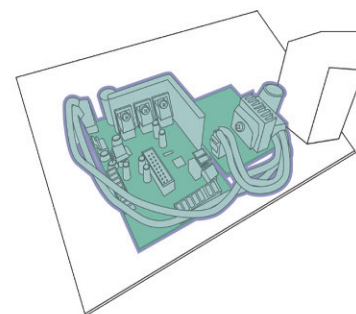
Cat. No.	Product Description
MS-VM-001	3" Round Rubber Flat Cover
MS-VM-002	Pop-Off Rubber Cup Head
MS-VM-003	15ml Tube Horizontal Holder, 4 clamps
MS-VM-004	50ml Tube Horizontal Holder, 2 clamps
MS-VM-005	1.5ml Eppendorf / Tube Foam Rack
MS-VM-006	15ml Tube Foam Rack
MS-VM-007	50ml Tube Foam Rack
MS-VM-008	96-well PCR Plate Foam Platform
MS-VM-009	96-well Microplate Foam Platform
MS-VM-010	15ml Tube Horizontal Holder, 2 clamps
MS-VM-011	50ml Tube Horizontal Holder, 4 clamps



MS Orbital Shaker



FC CE



*Anti-moisture shakers (MS-NOR-3001) are also available for cold room and CO₂ incubation operation.
Please contact your regional manager for detail information.



MS Orbital MS-NOR-30



MS Reciprocal MS-NRC-30



MS Rocking MS-NRK-30

- Heavy loading capacity (up to 15kg)
- Up to 200rpm for extreme performance
- Max. of 9999 minutes timer with alarm warning
- Interchangeable / stacking platforms and accessories for different applications
- 30x30cm shaking platform for standard laboratory practice

Cat. No.		MS-NOR-30	MS-NOR-3001	MS-NRK-30	MS-NRK-3001	MS-NRC-30	MS-NRC-3001
Shaking motion		Orbital action in one direction or two directions		Rocking: Tilt angle:12°		Reciprocal: Stroke length:20mm	
Speed/Inc.		0 ~ 200rpm / 1rpm		5 ~ 100rpm / 1rpm			
Timer		9999 (min) with alarm / Continuous					
Platform dimension (cm) (WxL)		30x30					
Loading capacity		10kg		15kg		8kg	
Stacking platform		Yes					
Anti-moistured		N/A	Yes	N/A	Yes	N/A	Yes
Platform capability of flask holders	50ml	13				13	
	125ml	12				12	
	250ml	9				9	
	500ml	5				5	
	1000ml	4				4	
	2000ml	1				2	

♦ Customized specification



* All images are for reference only, actual products might differ from the pictures above.
* Technical specifications subject to change without notice.

Mixer

3D Rotating Mixer with Adjustable Speed



MS-3D-RM



- Could be compatible with MO-MINI
- Movement Mode: Rotation, Shaking, Angle

*Could be compatible with MO-MINI.

*The tube frame can be different type on the two sides of the cross bar only on the both have same loading. Make sure the samples are in as balanced a position as possible. Please be aware that unbalanced force may cause damage to the machine.

3 different type of tube frames (tube clamps)



For 0.5 / 50ml tube



For 5 / 7 / 10 / 15ml tube



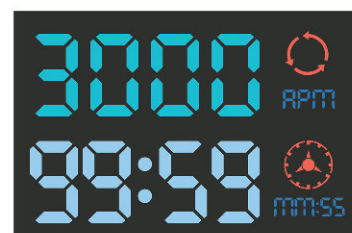
For 1.5 / 2ml tube

Model	3D Rotating Mixer with Adjustable Speed
Cat. No.	MS-3D-RM
Voltage	100~240V, 50/60Hz
Power	4W
Setting time	1-999 min/0-999 s
Speed	10-40 rpm
Operation angle	20-99°
Working Mode	Continuous/Timed
Movement Mode	Rotation, Shaking, Angle
Application tube	50mL (single piece) 4 wells 7/10/15mL (single piece) 5 wells 5mL (single piece) 8 wells 1.5/2mL (single piece) 24 wells 0.5mL (single piece) 11 wells
Overall size(WxLxH)	Approx. 240 x 140 x 210 mm
Weight	Approx. 850 g
Certification	CE

Centrifuge

Microplate Centrifuge

Cat. No.	MS-MC
Voltage	AC100~240V, 50/60Hz
Display	Digital
Rotating speed	500~3000 rpm
Timing range	99min 99sec
Max(RCF)	500 xg
Brake time	20s ± 5s
Short run	Yes
Capacity	2× 96-well microplates
Power	45W
Dimension(WxLxH)	Approx. 220x245x200mm
Weight	Approx. 2.5 kg



*For reference only, subject to practice.

MS Pipette

Cat. No	Description
MSP-2	MS pipette, variable volume 0.2~2µl
MSP-10	MS pipette, variable volume 1~10µl
MSP-20	MS pipette, variable volume 2~20µl
MSP-100	MS pipette, variable volume 10~100µl
MSP-200	MS pipette, variable volume 20~200µl
MSP-1000	MS pipette, variable volume 100~1000µl
MSP-5000	MS pipette, variable volume 500~5000µl
MSP-10000	MS pipette, variable volume 1000~10000µl
MSP-8X10	MS 8-ch pipette, variable volume 0.5~10µl
MSP-8X20	MS 8-ch pipette, variable volume 2~20µl
MSP-8X200	MS 8-ch pipette, variable volume 20~200µl
MSP-8X300	MS 8-ch pipette, variable volume 20~300µl
MSP-12X10	MS 12-ch pipette, variable volume 0.5~10µl
MSP-12X20	MS 12-ch pipette, variable volume 2~20µl
MSP-12X200	MS 12-ch pipette, variable volume 20~200µl
MSP-12X300	MS 12-ch pipette, variable volume 20~300µl
MSP-ST03	Pipette Stand

- Light weight
- Soft spring system for extremely low pipetting forces
- Controlled volume setting to prevent accidental volume changes
- Different color coded push button for different volume
- Contoured shape: fits either small or large hands
- Large pushbutton, rounded and freely rotating
- Finger hook: takes the weight, for a more relaxed grip
- Easy on site calibration (calibration key included)
- High accuracy and precision
- A unique serial number
- UV resistance even under prolonged exposure
- Fully autoclavable (121°C/0.1MPa/20 min)
- Internal quality self-check for each pipette unit



MSP Series

3-position tip ejector button
(left/right handed users)MSP-ST03
Pipette Stand

PCR Instruments



(Distributed by major science)

TOROUNIT® qPCR Cycler Plus

- Portable : Only 4.5kg and suitable for on-site testing
- High applicability : Compatible with all tests from TOROIVD
- Simple operation and one-key start to running program
- Easy to carry and no need other supporting utilities

- easy-to-use 16 wells qPCR cycle-1 : button start for non professionals
- Powerful : 3 fluor-channels or melting curve analysis for professionals

TOROHOMER® and TOROUNIT® qPCR Cycler



*major science Group is authorized agent for toroivcl.

*Please visit our website at www.majorsci.com for more product selection and detailed information.

Cat. No.	TOROUNIT® qPCR Cycler Plus	TOROHOMER® and TOROUNIT® qPCR Cycler
Dimension	Approx. 320×240×177mm	Approx. 247×188×133mm
Bare weight	4.5 kg	2.6 kg
Power	100-240V; 50-60Hz	DC 15V 9.6A
Noise level	45dB	≤50dB
Communication interface	USB	TypeA

* All images are for reference only, actual products might differ from the pictures above.
* Technical specifications subject to change without notice.

Digital Peristaltic Pump

MU-D Series



Cat. No	MU-D01 CE	MU-D02 CE	MU-D03 CE	MFU-02 CE
Controller	Digital microprocessor controller			
Motor	Brushless motor			Stepping motor
Power	50W	100W		
Pump speed / increment	20 - 300rpm / 1rpm	5 - 600rpm / 1rpm	20 - 300rpm / 1rpm	1 - 100rpm / 1rpm
Max. pump speed	300rpm	600rpm	300rpm	100rpm
Flow range **	1.2 - 1,140ml/min	0.3 - 2,280ml/min	8 - 3,272ml/min	0.08 - 375ml/min
Number of rollers	4		2	3
Number of peristaltic Pumps	1(Max is 2, the second pump head is optional and need the confirm before order.)		1	4
Operating temperature	Ambient to 40 °C			
Dimension (mm)(WxLxH)	200x340x130		240x338x167	315x340x180
Material	Painted iron metal			
Weight	Approx. 5.7kg		Approx. 6.2kg	Approx. 11.3kg
Rated voltage	110V/220V, Selectable	100V-240V	100V-240V	110V-240V
Program	2-step Program (running & ceasing); Max. of timer: 99 (hr) : 59 (min) : 59 (sec)			

**The flow range is subject to the silicone tube that used. Please see Silicon tubing specifications table for reference.

Tubing Information

Silicon tubing specifications						
Cat. No.	MU-S13	MU-S14	MU-S16	MU-S25	MU-S17	MU-S18
Inner diameter inches. (mm)	0.03(0.8)	0.06(1.6)	0.12(3.1)	0.19(4.8)	0.25(6.4)	0.31(7.9)
Hose barb size inches. (mm)	1/16(1.6)	1/16(1.6)	1/8(3.2)	3/16(4.8)	1/4(6.4)	3/8(9.5)
Flow range with 6 to 600rpm drive (ml/min)	0.36 to 36	1.3 to 130	4.8 to 480	10 to 1000	17 to 1700	23 to 2300
*The flow range is subject to the silicone tube that used. Please see Silicon tubing specifications table for reference.						
Maximum pressure, continuous	25psig (1.7bar)		20psig (1.4bar)	15psig (1.0bar)	10psig (0.7bar)	
Maximum pressure, intermittent	40psig (2.7bar)		35psig (2.4bar)	20psig (1.4bar)	15psig (1.0bar)	
Maximum vacuum	26" Hg (660mm Hg)				20" Hg (510mm Hg)	
Suction lift	29ft H ₂ O (8.8m H ₂ O)				22ft H ₂ O (6.7m H ₂ O)	

* MU-S18 is not compatible with MFU Series.

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Tetrad Peristaltic Pump

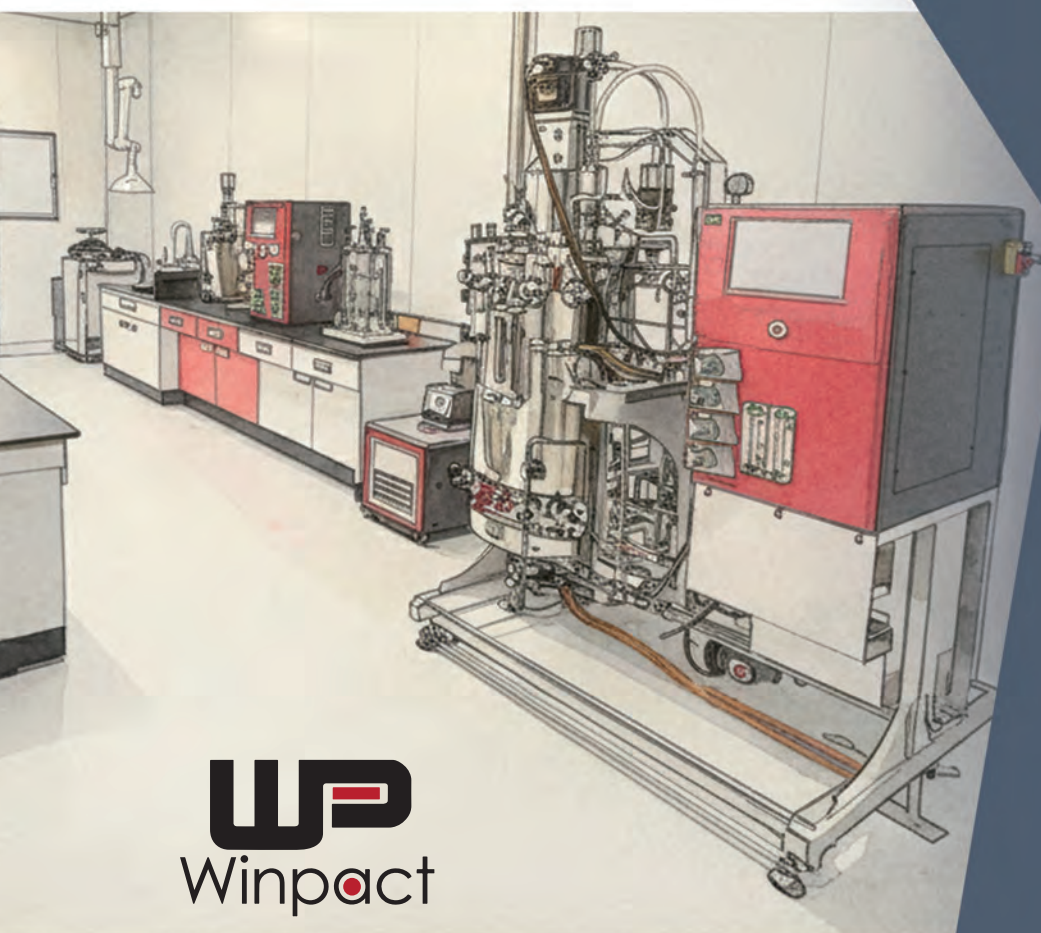
MFU Series

Tetrad pump model available, with individual controller for each pump





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Winpact

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