



2016 Catalogue

 **major
science**
Innovative Life Sciences Tools



Innovative Life Sciences Tools



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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. Headquartered in Saratoga, California, 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 family which is the state-of-the-art fermentor and bioreactor for the fermentation and cell cultivation system. The Winpact product family offers 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 System, Gel Documentation System, Thermoblock Reactor, Stirring Water Bath, Shaker, Incubator 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 science 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



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 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 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 line



Current Areas Of Focus

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.

Bioprocessing Technology

Bioreactor/Fermentors

Innovative SIP pilot and lab fermentation system suitable for all of your cell culture and fermentation engineering purposes

Cultivation Incubator

The ultimate bench-top model provide the stability and durability for all your fermentation and incubation needs

Recirculating Chiller

The Winpact Chiller series offers versatility and compact sizes water circulating chiller for your fermentation experiment. It is the perfect combination for our Winpact Fermentation System.

Bioprocess Downstream

The MS High-Speed Tubular Centrifuge offers high-performance centrifugal phase separation solution for a variety of applications in the industries

Life Sciences Research

Electrophoresis and Blotting

Provide excellent equipment for all of your nucleic acid and protein separation experiment

Amplification/PCR

An automated instrument series designed for running polymerase chain reaction experiments

Gel Documentation System

Simple and innovative gel imaging systems and quantification software

Blue Light Technology

A comprehensive safe and environmental friendly blue light technology product range for real time gel observation during/after electrophoresis and gel treatments

Mixer/Temperature Control

A series of simple, compact and innovative incubators with shaking mechanisms for all of your application needs

Peristaltic Pump

Quality digital peristaltic pumps are suitable for various of your application needs

Chemical Engineering

Thermostirrer

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

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.



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.



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.



All about Winpact Fermentation and Cell Cultivation System

Winpact is a product brand under Major Science, devoted to create a broad range of product portfolio for fermentation technologies. We focus on offering cell cultivation solution to the life sciences market.



Bioprocess Downstream

Centrifugation and Clarification

10

- ❖ High Speed Tubular Centrifuge

Cultivation Incubator

Shaker and Incubator

10

- ❖ Winpact Shaker
- ❖ Winpact Shaking Incubator

Utility Equipment

Cooling System

12

- ❖ Winpact Chiller

Bioreactor / Fermentor

Bioreactor / Fermentor

13-18

- ❖ Winpact Parallel System
- ❖ Winpact One System
- ❖ Winpact Evo System
- ❖ Winpact Solid State Fermentation System

Optional Devices & Accessories

19

- ❖ pH Probe
- ❖ DO Probe
- ❖ Temperature Probe
- ❖ ORP Probe
- ❖ Methane Off-Gas Analyzer
- ❖ Gas Mixing Station
- ❖ CO₂ / O₂ Off-Gas Analyzer
- ❖ Brushless Motor
- ❖ Composite Handle
- ❖ Mass Flow Controller
- ❖ Oxygen Enrichment
- ❖ Consumable Kit
- ❖ Mobile SMS Module
- ❖ External Pump
- ❖ Lighting Module
- ❖ Fermentation Bottle Holder
- ❖ Feeding Bottle Loading Port
- ❖ Motor Shaft Protection Cap
- ❖ Stainless Steel Supporting Foot
- ❖ Headplate Stand
- ❖ Vessel Stand

SIP Fermentation System (Pilot & Production)

20-21

- ❖ SIP Fermentation System

*All images are for reference only, actual products might differ from the images.

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

*Technical specification subject to change without notice.

High Speed Tubular Centrifuge

FS-GQ series

The MS High-Speed Tubular Centrifuge offers high-performance centrifugal phase separation solution for a variety of applications in the industries of biopharma, Chinese herbal therapy, dietary supplements, food & beverage and chemical engineering. This powerful but compact machine can separate as small as 1µm micro-sized particles, even highly corrosive material.

Design Features and Benefits

- Simple and robust design
- Suitable for using corrosive material
- Small footprint
- Separation of small particles (to 1 µm)
- High performance
- Compact design

Winpact Shaker

WS-200 series

The MS WS-200 shaker is developed to offer an integrated solution for every mixing requirement. With a large 18.1" X 18.1" platform and a wide selection of labware holders, this versatile machine can accommodate up five 2L flasks or any combination of labwares up to 20 kg. This powerful machine is equipped with a maintenance-free brushless motor that permits the device to operate noiselessly even at 500rpm, under programmable mode of operation or continuous mode up to 999hr.

Features

- Various speed settings from 20-500rpm
- 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 of platform imbalance and belt breakage with power shutdown strategy

Typical Applications

- Separation of viruses and bacteria
- Classification of biotechnological solutions
- Production of gamma-globulin
- Separation and clarification of lubricating oils, greases and solvents
- Concentration of essential oils
- Purification of fish oils
- Dehydration of varnishes and lacquers
- Clarification of fruit juices
- Chemical engineering
- Bio-pharmaceutical production



FS-GQ

Specification

Cat. No.	FS-GQ105	FS-GQ105B	FS-GQ75	FS-GQ75B
Bowl Diameter (mm)	105	105	105	105
Bowl Cubage (L)	6	6	2	2
Material of bowl	SUS304	SUS316	SUS304	SUS316
Rotary drum of bowl (mm)	742	742	450	450
Max. speed (r/min)	16,000±500	16,000±500	20,000±500	20,000±500
Max. RCF	15,050 (×g)	15,050 (×g)	16,700 (×g)	16,700 (×g)
Pass Water Capacity (T/h) *	1.2	1.2	0.2	0.2
Product ** (L/h)	100-900	100-900	20-100	20-100
Motor Power (kW)	3	3	1.2	1.2
Rated Voltage (V)	AV380	AV380	AV380	AV380
Weight (kg)	500	500	250	250
Dimension (mm)	680×450 ×1580	680×450 ×1580	660×390 ×1200	660×390 ×1200
Height of outlet (mm)	880	880	630	630
ID of inlet (mm)	Φ12	Φ12	Φ12	Φ12
ID of outlet (mm)	Φ38	Φ38	Φ32	Φ32

**Product varies from actual specific density, viscosity, separation demand of materials.

*T/h :Ton/hour



WS-200

FC CE

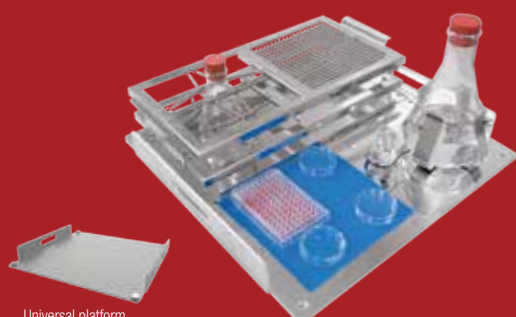
Specification

Cat. No.	WS-200
Platform size	18.1" x 18.1" (46x46cm)
Shaking orbit	3/4" (19mm)
Speed range (rpm)	20-500rpm
Speed increment	1rpm
Communication port	RS-485
Timer	999 (hr): 59 (min) / Continuous
Display	3.5" color TFT LCD screen
Dimension (WxLxH)	Approx. 23.2"x 32.3" x 22.4" (Approx. 59 x 82 x 57cm)
Weight	Approx. 110.2 lb (Approx. 50 kg)
Rated Voltage	110 / 220V~ 50 / 60Hz
Certification	CE, FCC

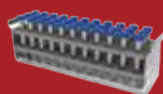
Winpact Shaking Incubator

SI-200 series

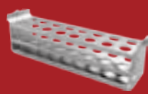
Major Science is introducing the newly innovated Winpact series Shaking Incubator. This ultimate shaking incubator provides you the stability and durability for all your fermentation and incubation needs. The system incorporates multiple safety features to put your mind at ease.



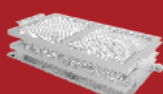
Universal platform
Cat. No.: SI-200-01



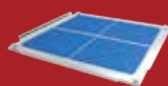
Adjustable angle
tube rack (33x15ml)
Cat. No.: SI-200-02
*tube not included



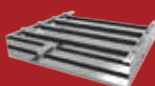
Adjustable angle
tube rack (16x50ml)
Cat. No.: SI-200-03



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)

Features

- Special designed drainage channel protects the motor and inner circuitry from accidental spills
- Multiple early error-detection mechanisms ensure safety of operator and cultured cells in an event of device malfunctions
- Lab-proven superior temperature uniformity
- A wide selection of racks, holders, sticky pads and accessories provide all-ranged compatibility to cell cultivation labwares
- Automatic system shutdown in the event of system overheating
- Sensitivity adjustable G-sensor with warning embedded for imbalance weight detection
- Programmable or continuous modes of operation
- Brushless DC motor provides reliable and quiet operation, durable and maintenance-free usage
- Hermetic chamber design significantly enhances precise temperature control
- 2-point temperature calibration ensures high temperature performance
- Acrylic lid for clear viewing and easy access



SI-200

FC CE



Specification

Cat. No.	SI-200
Platform size	18.1" x 18.1" (46x46cm)
Shaking orbit	3/4" (19mm)
Speed range (rpm)	20-500rpm
Speed increment	1rpm
Communication port	RS-485, PT-100
Heating temperature range	Ambient +5°C to 65°C
Power	600W
Temperature accuracy and uniformity	± 0.25°C at 37°C
Timer	999 (hr): 59 (min) / Continuous
Display	3.5" Color TFT LCD screen
Dimension (WxLxH)	Approx. 23.2"x 32.3" x 22.3" (Approx. 59 x 82 x 53cm)
Weight	Approx. 154.3 lb (Approx. 70 kg)
Rated voltage	110 / 220V~ 50 / 60Hz
Loading Capacity	Approx. 44.1 lb (Approx. 20 kg) at 250rpm

Racks and Tray

Cat. No.	Product Description	Max. platform capacity
SI-200-01	Universal platform	1
SI-200-02	Adjustable angle Tube Rack (33 x 15ml)	4
SI-200-03	Adjustable angle Tube Rack (16 x 50ml)	4
SI-200-04	Universal Spring Rack	2
SI-200-05	Sticky Pad platform	1
SI-200-06	Universal Cushioned Crossbar	1

Microplate and flask holder

Cat. No.	Product Description	Max. platform capacity
SI-200-07	Microplate holder	9
SI-200-08	Flask holder, 50 ml	52
SI-200-09	Flask holder, 125 ml	25
SI-200-10	Flask holder, 250 ml	25
SI-200-11	Flask holder, 500 ml	16
SI-200-12	Flask holder, 1000 ml	9
SI-200-13	Flask holder, 2000 ml	5

Winpact Chiller

WCC-100

The Winpact Chiller series is the newest addition to Major Science's product portfolio of the bioprocessing technology and designed 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 stay away from costly tap water and is the perfect alternative for basic cooling needs.



Compact design

Features

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



WCC-100 / 101



Digital Controller for easy operation

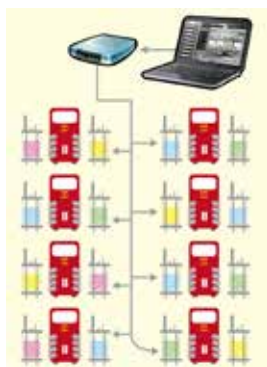
Specification

Cat. No.	WCC-100	WCC-101
Display	LED display	
Power	1000W	
Bath capacity	10L	
Chamber Material	SUS#304	
Controller	PID control, PT100 sensor	
Temperature control range	0°C to +100°C	
Temperature stability	± 0.5°C at 20°C	
Temperature accuracy	± 0.5°C at 20°C	
Rated voltage	110V; 60Hz, 14.5A	220V; 50Hz, 8A
Safety device	<ul style="list-style-type: none"> • Self-diagnosed abnormality display • Electronic overheating thermal fuse protection in increments of 0.1°C • Delayed resume compressor protection 	
Circulation volume	Cycles up to 5.5L/min cooling system with delayed resume protection after power outage	

Winpact Parallel System

FS-05 Series

The Winpact Parallel System is the ultimate and true parallel system for your parallel experiment. Whether you need to run two identical experiments or different experiments at once, the duo heating system allows you to run two thermostat heating, two dry heating or one thermostat and one dry heating simultaneously. This state-of-the-art design is constructed with the upmost versatility and flexibility to work with all types and sites of Winpact vessels. The remote control software can control up to 16 vessels for true parallel operation.



Two independent vessel operation regardless vessel type



Two independent vessel operation regardless vessel type

Features

- True parallel system, one controller for two vessels
- Single or dual vessels for independent or simultaneous control
- Duo heating system for thermostat and dry heating compatibility
- Free remote control software included in standard package
- Full compatibility with all optional devices



Control Unit

- Single or dual vessels for independent or simultaneous control
- Duo heating system for thermostat and dry heating compatibility
- Maintenance-free top drive brushless motor
- Linux based system for stable and smooth operation
- 15 steps programmable control on pH, temp., feeding, agitation for sophisticated protocol
- 8 integrated assignable and programmable Watson Marlow pump heads with high resistance to acid and base
- More than 59,994 storage programs and 100 process data files available
- pH & DO stat with smart feeding technology
- Purchase free for remote control software
- Flexible data exporting interface: USB port or PC connection
- Global exclusive real-time notification for control (Optional device required)
- Pre-configured software for up to 16-folds operation, optimized for all vessel types
- Extreme compact in size: 400x540x740mm (WxLxH)

Autoclavable Glass Vessels:

- 4 different types of vessels for selection
- Up to 7 sizes of maximum working volumes for vessels: 0.5L, 1L, 3L, 5L, 10L, 15L and 20L
- Industry standard borosilicate glass and 316L stainless steel for headplate and all fittings



Remote software controls up to 16 vessels at once.

Winpact One System

FS-06 series

The most versatile, cost and space saving fermentation system is now available from our Winpact Fermentation product line-the Winpact One System.

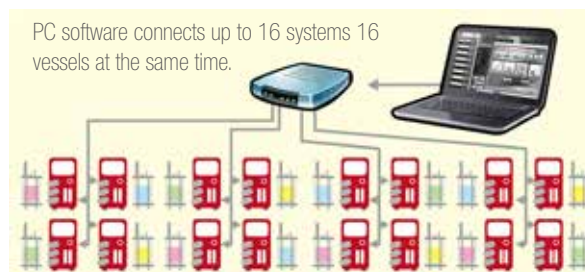
Winpact One System is not only compact in size but also provides all the necessary tools as a standard instrument. The duo heating system allows you to choose any vessel types up to 10L for any application needs. The optional expansion module allows you to add additional devices to enhance the capability of the system. All necessities such as temperature, anti-foam, pH and DO probe are all included in the standard package.



Duo heating system, compatible to all vessels up to 10 liters

Features

- Duo heating system, thermostat and dry heating combined in one
- Linux based system for stable and virus proof operation
- Extreme compact in size: (WxLxH) 250x510x500mm
- Compatible with any vessel types up to 10 liter
- Economic model for budget saving lab
- Connects up to 16 systems through remote control software
- Three speed adjustable peristaltic pumps control feedings in various flow rates
- SCADA software ready
- Easy ordering package
- Expansion module available for system upgrade supports to optional devices
- Multi-language operation interface is available



Vessel size selection from 500ml to 10L any type

- A - Single wall dish bottom vessel, 1L
- B - Double jacketed dish bottom vessel, 3L
- C - Double jacketed air lifter vessel, 5L
- D - Single wall plain bottom vessel with heating base unit, 10L



Multi-language operation interface (Spanish language)

Winpact Evo System

FS-07 series

Winpact Evo System is the newest fermentor that offers an all-in-one fermentation solution and ultimate automation experience to ensure easy, smooth and productive bio-processing. The controller is pre-configured to support both thermostat and dry heatings ; together with its full compatibility to Winpact vessels from 0.5 to 20L, it provides a broad coverage to cultivation of most cell lines.

Winpact Evo System is equipped with the latest control software; this user-friendly, intuitive software incorporates with many advanced functions to boost your experiment efficiency and thus lead to the success. Besides the manual controls of agitation, temperature, pH, DO level and feeding, one can also execute 15-step scheduled sequence controls on above parameters as well as pH and DO feedback controls. Moreover, a broad selection of plug-and-play optional devices are available to meet your specific requirement.



Features

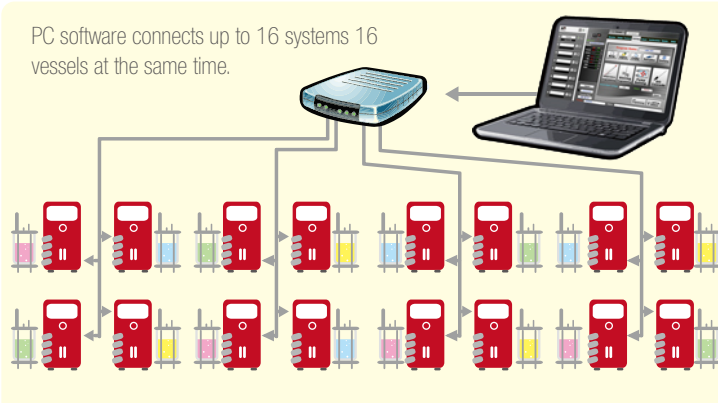
- Duo heating system, thermostat and dry heating combined in one
- Universal system for R&D in cell culture and microbiology
- Interchangeable five (5) types of autoclavable glass vessel
- Control up to sixteen (16) systems from a single interface
- Compatible with microbial and cell culture applications
- Intuitive and user-friendly control software in multi-language
- Small pilot scale 15L and 20L glass vessel compatible
- Ethernet communication with Winpact SCADA software, and IP addressing
- Winpact **EZScript software for advanced fermentation process control (optional)
- Multi-language operation interface is available



FS-07



PC software connects up to 16 systems 16 vessels at the same time.



*Please be aware that Major Science is going to replace FS-01 and FS-02 with the coming FS-07 system in the near future.

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

Multi-language operation interface (Russian language)



Winpack Vessel Selection Guide

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)
Agitation motor	Brushless motor	Brushless motor	N / A	Brushless motor	Brushless motor
Impeller	Pitched-blade	Rushton	N / A	Rushton	Rushton
Temp range	5 °C above coolant to 60°C	5 °C above coolant to 60°C	5 °C above coolant to 60°C	5°C above coolant to 60°C	5°C above coolant to 90°C
Vessel size	500ml - 10L	1 - 10L	5L only, single or double jacketed	1 - 20L	1 - 10L
Speed range	cell:30-300rpm (0.5-5L) microbial:30-1000 rpm (10L)	30-1200rpm(1 - 5L) 30-1000rpm(10L)	N / A	30 - 1200rpm (1 - 5L) 30 - 1,000rpm (10L) 30 - 700rpm (15, 20L)	30 - 1200rpm (1 - 5L) 30 - 1,000rpm (10L)
Heating	Built-in heat exchanger			Heating blanket	Heating base unit
Cooling	External chiller, automatic cooling water valve				
Aeration	Orifice ring sparger	Orifice ring sparger	PTFE micro sparger	Orifice ring sparger	Orifice ring sparger
Grounding port	No need	No need	Yes	No need	No need
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	● ●	● ○	○ ○	● ○	○ ○

● ● Excellent

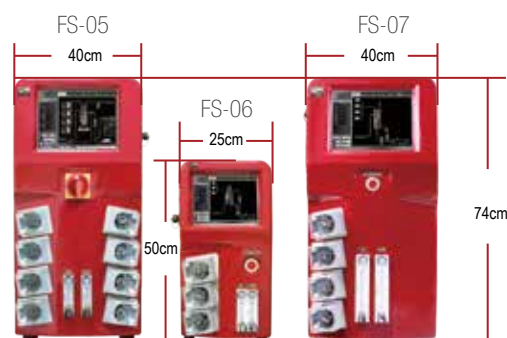
● ○ Good

○ ○ Not Recommended

Note:

1. Some bacteria; yeast; fungi
2. Facultative culture (For example, some *Lactobacillus*; ethanol production)
3. Same as note 2
4. This vessel is excellent for fragile cells that are easily sheared by any type of mechanical impeller
5. Plant; algae; cyanobacteria (blue-green algae)

Most compact and versatile economic fermentation system



Charting - Real-time data recording and exporting



System Setup - Set up for optional devices



Control / Manual
- Performs manual, sequence or EZ Script control(optional) of each parameter.



Control / Sequence



Pumps - Control speed, direction, total volume and flow rate





Calibration - Easy sensor calibration with help menu

Vessel Specification

	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		

*FS-A-CON04 is pre-configured in Air Lifter Vessels as standard. Available upon purchase of vessels over 3L.

** Suggested Max.

Δ Total volumes are approximate and may vary slightly.

Winpack Controller Selection Guide

Cat. No.	FS-05	FS-06	FS-06 + FS-06-EPM*	FS-07
Model	Winpack Parallel	Winpack One	Winpack One	Winpack Evo
Heating system	Duo Heating			
Working volume range	500ml - 20L	500ml - 10L	500ml - 10L	500ml - 20L
Glass vessels, autoclavable	yes	yes	yes	yes
Interchangeable vessels	yes, all types	yes, all types	yes, all types	yes, all types
Number of vessels controlled per controller	2	1	1	1
Number of vessels controlled via remote software	Max 16			
Touchscreen controller	yes, 10.4"	yes, 8"	yes, 8"	yes, 10.4"
Number of peristaltic pumps	8	3	3	4
Gas mixing options	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	Available, multiple	Available, 1 max.	Available, 2 max.	Available, multiple

* Optional expansion module (EPM) needed.

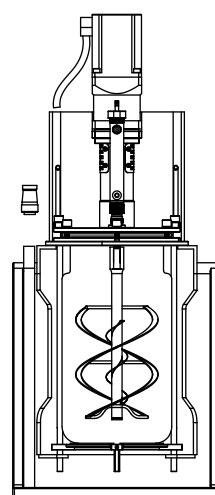
Winpact Solid State Fermentation System

FS-10-A05P

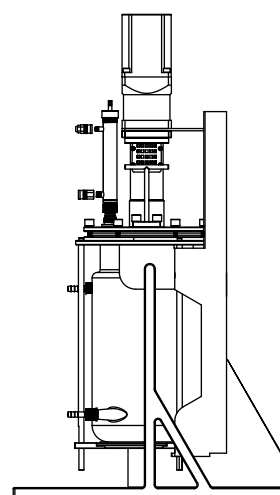
Winpact Solid State Fermentation system is designed for the laboratory scale researchers to gain the excellent results, the optimization, and for the scale up through built-in controller factors. Alike Winpact series, it offers a 10.4" color touch screen with graphic user interface and 3 built-in peristaltic pumps on the Linux based operation system. An automatic vessel angle control mechanism via the Winpact controller really gives the outstanding mixing efficiency and simulation for solid state material research such as enzymatic hydrolysis research with Lignocellulosic material and Ganoderma solid status research. This system is designed for both aerobic and anaerobic fermentation with different optional impellers.



FS-10-A05P



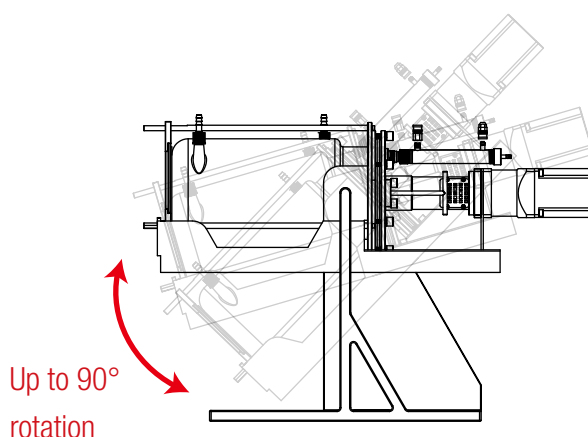
Front view



Side view

Features

- Fully integrated system specifically designed for solid-state fermentation research involving saccharification, hydrolysis and more.
- Programmable angle-adjustable vessel tilting and stirring mechanism permits superior sample homogeneity.
- Reduced stickiness design of impellers ensure sample integrity throughout the fermentation run.
- Integrated motor shaft & air sparger assembly creates precise, disturbance-free controls of aeration and mixing.
- Chemically resistant double jacketed borosilicate glass vessel design
- Customizable impeller and aeration controller available.



Up to 90°
rotation

Winpack Accessories and Optional Devices



pH Probe



DO Probe



Temperature Probe



ORP Probe



Methane Off-Gas Analyzer



Gas Mixing Station



CO₂ / O₂ Off-Gas Analyzer



Brushless Motor



Composite Handle



Mass Flow Controller



Consumable Kit



External Pump



Lighting Module



Feeding Bottle Loading Port



Fermentation Bottle Holder



Motor Shaft Protection Cap



Stainless Steel Supporting Foot



Headplate Stand



Vessel Stand



Other Optional Devices:

- Antifoam Probe
- Impeller
 - Rushton 6 Blade Impeller
 - Pitched Blade Impeller
 - Foam Breaker Impeller
- Sampling Device
 - Triport Sampling Device
 - Dual Ports Sampling Device
 - Ball Valve Sampling Device
- Quad Loading Port
- Stainless Steel Condenser
- Mobile SMS Module

SIP (Pilot Scale)

Fermentation System

FS-10L / FS-30L

The 10L and 30L SIP Pilot Scale Fermentation Systems allow you to run small volume of fermentation experiment with ease. These systems are perfectly suitable for small scaling up in the academic lab. The easy programming and operation on our Winpac software put your operation procedure in your peace of mind. System comes with rolling wheels for mobility. All materials are made from the highest standard to ensure optimization of your fermentation process. A variety of optional devices are also available for selection to maintain your optimum performance.



FS-10L

Features

- Two models for selection: 10L and 30L working volume
- Maximum speed range up to 1000rpm (10L only)
- Stainless steel double jacketed vessel for excellent temperature control
- ABS panel with compact smart controller
- Newly developed Linux based software interface for easy operation and virus-proof
- Energy and budget saving built-in heat-exchanger for sterilization purpose
- System expansion with various optional devices to enhance fermentation process
- Compact and easy installation with platform and wheels for easy rolling
- Optional double-layered mechanical seal
- Optional semi-automatic cooling system
- Easy headplate lifting with optional chain hoist system (30L only)

Motor

Manual or automatic control of constant agitation speed

10L / 30L System

Peristaltic Pump

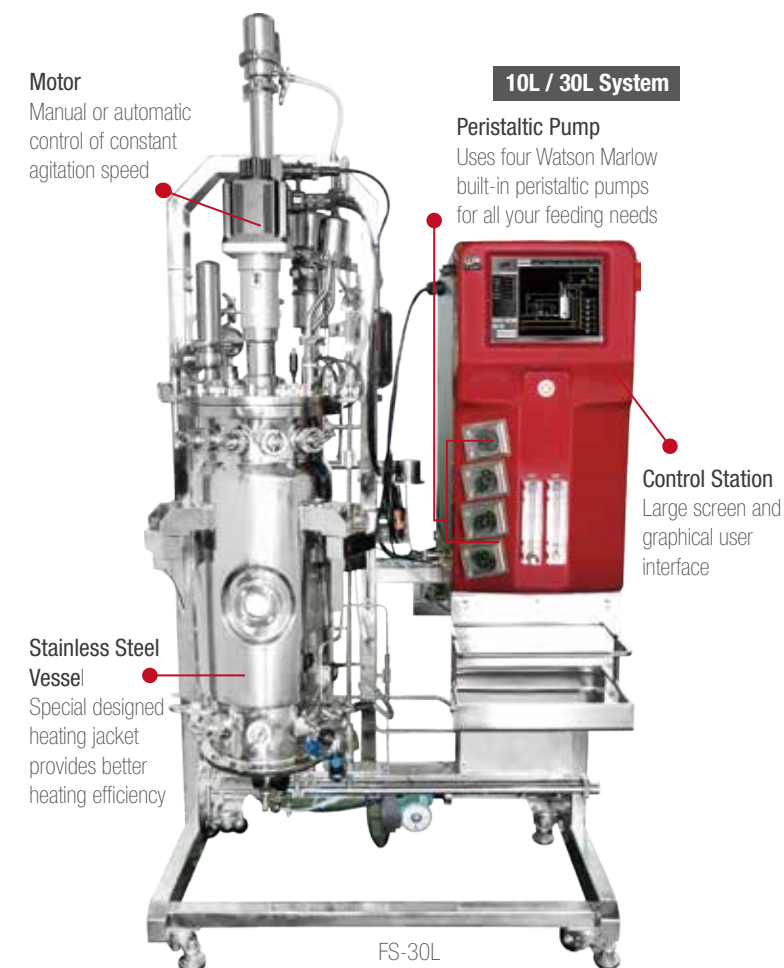
Uses four Watson Marlow built-in peristaltic pumps for all your feeding needs

Control Station

Large screen and graphical user interface

Stainless Steel Vessel

Special designed heating jacket provides better heating efficiency



FS-30L



Immediate visualization on operation overview



Easy and intuitive operation for manual and sequence control



Online system calibration with system feedback



System expansion with various optional devices



One-Touch automatic sterilization for vessel and system tubings



Four-staged DO cascade



15-Step programmable PID control

SIP (Production Scale) Fermentation System

Winpact brand 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 stability and repeatability result for every experiment. All of our features are designed to provide a high level of productivity and automation while maintain a low operation cost. All other great features including total sterilization process, mechanical seal break indication, golden vessel ratio design and complete optional devices for optimizing the fermentation process.



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" and above colored graphical control interface
- Fully automated process with remote monitoring
- 15 steps automatic program setting
- Orbital welding ensures minimal residue buildup
- Highest grade construction with SUS316L stainless steel
- 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 installation and purchase
- Password protection for multiple users with customized access levels
- Varies optional devices for process optimization and needs
- Ethernet communication with Winpact SCADA software, and IP address



- Pneumatic valve for accurate control
- Orbital welding provides top quality

Capacity	10L	30L
Total volume	15L	35L
Working volume	10L	30L
Vessel and jacket maximum working pressure	3 barg (43.5 psig) / 4 barg (58 psig)	
Type	Double layered fully enclosed capsule-type tank	
Material	Direct contact to medium - SUS316L; all others - SUS304	
Surface finish	Interior polish ≤ 25 Ra/in (0.6 μ m) Mechanical polishing; Electropolish optional Exterior polish ≤ 32 Ra/in (0.8 μ m) Mechanical polishing; Electropolish optional	

Capacity	100L	300L	500L	1000L
Total volume	120L	360L	650L	1350L
Working volume	100L	300L	500L	1000L
Vessel and jacket maximum working pressure	3 barg (43.5 psig) / 3 barg (43.5 psig)			
Type	Double layered fully enclosed capsule-type tank, with an outer temperature protective layer			
Material	Direct contact to medium - SUS316L; all others - SUS304			
Surface finish	Interior polish ≤ 25 Ra/in (0.6 μ m) Mechanical polishing; Electropolish optional Exterior polish ≤ 32 Ra/in (0.8 μ m) Mechanical polishing; Electropolish optional			



Power Supply

The Major Science power supplies are perfect for your everyday use for electrophoresis. Our power supply is ideal for DNA, RNA, and protein electrophoresis as well as blotting.

Major Science power supply are available for routine horizontal and vertical electrophoresis. These safe and user-friendly power supplies consist of advanced specification, high performance, long life span, and compact sizing.

Electrophoresis System

Major Science offers a comprehensive line of equipment and related products for a variety of electrophoresis experiments. This portfolio includes full-sized horizontal and vertical cells, electro-blotting systems, semi-dry blotting systems and other products.

Electrophoresis and Blotting

Power Supply

24-29

- ❖ Handy 100V
- ❖ Mini Pro 300V / 500V
- ❖ MS 300V series / 500V / 3AP

Nucleic Acid Electrophoresis

30-41

- ❖ Mini Horizontal
- ❖ Midi plus-1/plus-2 Horizontal
- ❖ Maxi Horizontal
- ❖ Midi96 plus-1 & Super plus gel

Protein Electrophoresis

42-47

- ❖ Mini Vertical
- ❖ Mini Wide/ Maxi Plus Vertical
- ❖ Maxi WAVE Vertical

Blotting

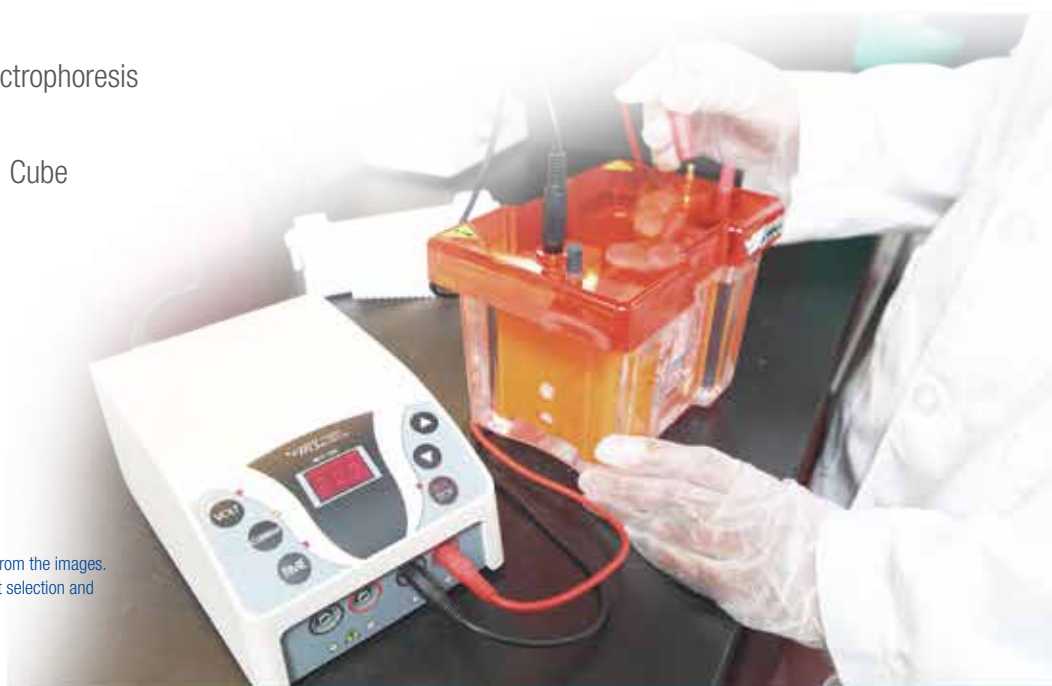
48-50

- ❖ Complete Mini/Mini Wide/Maxi Electro Blot System
- ❖ Semi Dry Mini and Semi Dry Midi

Special Application

51-57

- ❖ Comet Assay Tanks
- ❖ Cellulose Acetate
- ❖ Dot and Slot Blotters
- ❖ Denaturing Gradient Electrophoresis
- ❖ FlatBed IEF System
- ❖ Gradient Formers / Cool Cube
- ❖ Midi Gel Dryer



*All images are for reference only, actual products might differ from the images.

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

*Technical specification subject to change without notice.

Handy 100V Power Supply

MP-100

The Handy 100V Power Supply is specifically designed for DNA and RNA electrophoresis.

It allows for two constant voltages of either 50V or 100V.

The low cost, light weight and small foot print make it perfect for teaching labs as well as routine electrophoresis use.

It can be purchased individually or in packages with horizontal gel electrophoresis systems to be more economical.



MP-100



Features

- 50V or 100V constant voltage output
- 400mA maximum current
- 40W maximum power
- Safety device
- Ultra compact size and lightweight
- Developed specifically for DNA and RNA electrophoresis
- Great value at very competitive pricing
- Bundled package with MJ-105-S, MJ-105-R, and MT-108



Specifications

Cat. No.	MP-100
Output voltage	50V/ 100V
Output current	400mA
Output power	40W
Output type	Constant voltage
Voltage selection	50V and 100V
Safety device	No-load detection; shrouded plugs and sockets
Operation temperature	4°C - 40°C
Dimension (WxLxH)	2.36"x1.57"x4.72" (60x40x120mm)
Terminal pairs	1 pair
Material	Polycarbonate (PC)
Weight	Approx. 0.6lb (0.3kg)
Rated voltage	100 - 120V only

Ordering Information

Cat. No.	Product Description
MP-100	Handy 100V Power Supply

Bundle Packages

Electrophoresis Package	Product Description
MJS-100P	Package of MJ-105-S and MP-100
MJR-100P	Package of MJ-105-R and MP-100
MT-100P	Package of MT-108 and MP-100



Mini Pro 300V / 500V Power Supply

Mini-300
Mini-500

Featuring in small size and versatility, the newly designed Mini Pro 300V / 500V Power Supply are ideal choices for any researchers. Capable of providing constant voltage or current in 1V or 1mA increment, the unit is perfectly suitable to run both vertical polyacrylamide or horizontal agarose gel electrophoresis experiments. Continuous or timed operation can be easily set up using the simple and user-friendly interface. Mini Pro 300V and 500V both feature 2 electrode pairs, allowing 2 gels to be run simultaneously, saving both time and valuable bench space. With an universal voltage rating, Mini Pro 300V and 500V are also designed and constructed to the most rigorous safety standards. Package including single or dual horizontal electrophoresis system and mini vertical electrophoresis system are excellent choices for educational or person lab purposes.



Features

- Constant voltage or constant current operation
- 1V increment voltage control; 1mA increment current control
- Max 300V, 400mA and 60W for Mini Pro 300V
- Max 500V, 400mA and 120W for Mini Pro 500V
- Two pairs of outlet terminals
- Timer with alarm function
- Safety device
- Compact size and lightweight
- Competitive pricing choice
- Packages with midi sized horizontal electrophoresis systems and vertical electrophoresis systems



Mini 300V



Mini 500V





MJS-Mini300



MT-Mini300



MJSS-Mini300



MJST-Mini300



ME7-Mini300



ME10-Mini300



ME15-Mini300



MV10-Mini300

Specifications

Cat. No.	Mini-300	Mini-500
Output voltage / Inc.	10 - 300V / 1V	10 - 500V / 1V
Output current / Inc.	10 - 400mA / 1mA	10 - 400mA / 1mA
Output power	60W	120W
Output type	Constant voltage or constant current	
Control	Microprocessor controller	
Terminal pairs	2 Pairs	
Timer	999 (min) with alarm / Continuous	
Safety device	No-load detection; shrouded plugs and sockets	
Operation temperature	4°C to 40°C	
Dimension (WxLxH)	5.51"x7.52"x3.31" (140x191x84mm)	
Material	Polycarbonate housing and aluminum base plates	
Weight	Approx. 2.2lb (1kg)	
Rated voltage	Universal, 100 - 240V	
Application	Sufficient for midi sized horizontal and vertical electrophoresis systems	
Program	N/A	2-step (V, mA, Ⓢ)

Ordering Information

Cat. No.	Product Description
Mini-300	Mini Pro 300V Power Supply
Mini-500	Mini Pro 500V Power Supply

Bundle Packages

Single electrophoresis packages	
MJS-Mini300	Package of MJ-105-S and Mini-300
MJR-Mini300	Package of MJ-105-R and Mini-300
MT-Mini300	Package of MT-108 and Mini-300
ME7-Mini300	Package of ME7-7-10 and Mini-300
ME10-Mini300	Package of ME10-7-10 and Mini-300
ME15-Mini300	Package of ME15-7-10-15 and Mini-300
MV10-Mini300	Package of MV-10DSYS and Mini-300
Dual electrophoresis packages	
MJSS-Mini300	Package of 2 x MJ-105-S and Mini-300
MJRR-Mini300	Package of 2 x MJ-105-R and Mini-300
MTT-Mini300	Package of 2 x MT-108 and Mini-300
MJSR-Mini300	Package of MJ-105-S & MJ-105-R and Mini-300
MJST-Mini300	Package of MJ-105-S & MT-108 and Mini-300
MJRT-Mini300	Package of MJ-105-R & MT-108 and Mini-300
Mini500-CP-02	Complete Package of Mini Pro 500V Power Supply and Maxi Plus Vertical Electrophoresis System
Mini500-CP-03	Complete Package of Mini Pro 500V Power Supply and Maxi Wave Vertical Electrophoresis System



Mini500-CP-02



Mini500-CP-03

MS 300V series /500V/3AP Power Supply

MP-300V

MP-500V

MP-3AP

Major Science offers 3 models of power supplies constructed with microprocessor controller with 4 pairs of outlet terminals which covers the broadest range of applications in general laboratory. The microprocessor control offers easy-to-use operation on constant voltage, current and power while maintaining the pause/resume capability during timed or continuous operation. MP-300V is powerful enough to perform horizontal and vertical electrophoresis as well as two-dimensional electrophoresis SDS-PAGE applications. For more advanced applications, MP-500V and MP-3AP operate with a fully programmable mode and offering up to 6 multi-step setting conditions, the 2.6" LCD screen also allows you to see all the running/setting conditions while operating. All 3 models consist the great safety features to ensure safety of the lab and experiment.



Features

- Four pairs of outlet terminals
- Timer with alarm function
- 2.6" LCD screen shows all parameters during operation (MP-500V and MP-3AP)
- Constant voltage/current operation mode (MP-300V)
- Constant voltage/current/power operation mode (MP-500V and MP-3AP)
- Compact size with stackable case
- Wide applications for DNA, RNA and protein electrophoresis and blotting
- Advanced safety device design
- Universal rated voltage for worldwide distributions



MP-300V



FC CE



MP-500V

FC CE



MP-3AP

FC CE

Specification

Cat. No.	MP-300V	MP-500V	MP-3AP
Display	LED	2.6"LCD	
Output voltage / Inc.	2 - 300V / 1V	5 - 500V / 1V	5 - 300V / 1V
Output current / Inc.	1 - 700mA / 1mA	1 - 800mA / 1mA	10 - 3000mA / 10mA
Output power / Inc.	150W	300W / 1W	
Output type	Constant voltage / Current	Constant voltage / Current / Power	
Controller	Microprocessor controller		
Program storage	N / A	30 programmed files	
Program	N / A	Up to 6-step (V, mA, W, Ⓢ)	
Terminal pairs	4 Pairs		
Timer	Constant mode:9999 (min) with alarm / Continuous		
	N / A	Programmable mode: 999 (min) with alarm / Continuous	
Pause function	Yes		
Safety device	No-load detection		
	Leakage detection		
	Sudden load change detection		
	Over temperature protection		
	Overload detection		
	Shrouded plug and sockets		
Crossover	Yes		
Operation temperature	4°C to 40°C		
Dimension (WxLxH)	7.48"x12.01"x3.74" (190x305x95mm)		
Material	Flame retardant ABS plates and aluminum		
Weight	Approx. 5.5lb (2.5kg)		
Rated voltage	100V - 240V		
Stackable	Yes		

Ordering Information

Cat. No.	Product Description
MP-300V	MS 300V Power Supply
MP-500V	MS 500V Power Supply
MP-3AP	MS 3AP Power Supply



Four pairs of outlet terminals



Stackable case

Mini Horizontal Gel Electrophoresis System

MJ-105 series MT-108

For MJ-105 series

The MJ-105 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. Its molded design prevents cracks and leakages and the sturdy PC provides a 130°C temperature capacity. The safety interlock cover is designed to prevent electrical hazards during electrophoresis. It is ideal for several applications, including Northern and Southern blotting, Cosmid library restriction analysis, STS screening, microsatellite analysis, PCR fragment analysis, RFLP analysis, DNA fingerprinting and high throughput analysis.

For MT-108

MT-108 horizontal electrophoresis units offer many advantages for nucleic acid separation. Agarose gels are easy to cast and samples are easy to load. MT-108's longer tray allows running of bigger fragments to attain higher resolution. Its molded design prevents cracks or leakages, and its sturdy PC provides a temperature capacity of up to 130°C. A safety interlocking cover is designed to prevent electrical hazards during electrophoresis runs. It is ideal for many applications, including Northern and Southern blotting, Cosmid library restriction analysis, STS screening, Microsatellite analysis, PCR fragment analysis, RFLP analysis, DNA fingerprinting and high-throughput analysis.

Features

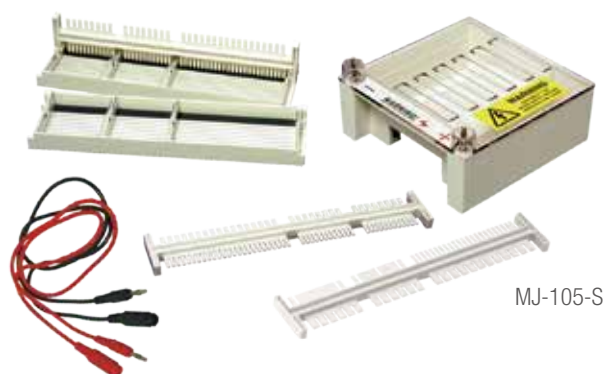
- Less agarose consumption
- Less running buffer consumption
- Multichannel pipette-compatible
- Single molded tank
- Safety & Ventilation lid
- High temperature capability, 130°C
- Easy sample loading
- Great indications for gel making and running
- No tapes, clamps or springs needed for gel casting
- No direct heat impact from power supply unit

For MJ-105 series additional features

- Two tank color options available
- Contains 2 sets of gel maker stand
- Cast 6 pcs of agarose gel in one time

For MT-108 additional features

- Two tray options available
- Cast 3 pcs of agarose gel in one time



MJ-105-S



MJ-105-R

MJ-105 series is offered as a complete system for the user to cast, and run electrophoresis. including:

- 1 x Electrophoresis tank & lid
- 2 x MJ-G01 (gel maker stand)
- 2 x MJ-T02 (107x60mm tray)
- 4 x MJ-T01 (52x60mm tray)
- 1 x MJ-C01 (double side comb: 8 teeth x 2 & 17 teeth; 12 teeth x 2 & 25 teeth)
- 1 x MT-C03 (multiple pipette compatible 23 teeth, Prep 1 & Marker 2, Prep 2 & Marker 2; 6 teeth x 2 for mini gel & 12 teeth for midi gel)
- 1 x Black & red electrophoresis cable



MT-108

MT-108 is offered as a complete system for the user to cast, and run electrophoresis. including:

- 1 x Electrophoresis tank & lid
- 1 x MT-G01 (gel maker stand)
- 1 x MT-T01 (105x83mm tray)
- 2 x MT-T02 (50x83mm tray)
- 1 x MJ-C01 (double side comb: 8 teeth x 2 & 17 teeth; 12 teeth x 2 & 25 teeth)
- 1 x MT-C03 (multiple pipette compatible 23 teeth, Prep 1 & Marker 2, Prep 2 & Marker 2; 6 teeth x 2 for mini gel & 12 teeth for midi gel)
- 1x Black & red electrophoresis cable

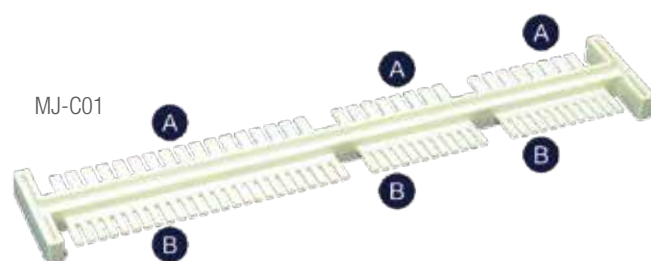
Specification

Cat. No	MJ-105-S	MJ-105-R	MT-108
Appearance	Snow tank & transparent lid	Transparent red tank & transparent lid	Snow tank & transparent lid
Material	PC (Polycarbonate)		
Temperature capacity	130°C		
Dimension (WxLxH)	5.51"x5.51"x2.09" (140x140x53mm)		5.35"x7.4"x2.28" (136x188x58mm)
Gel dimension (WxL)	4.21"x2.36" (107x60mm)		4.13"x3.27" (105x83mm)
	2.05"x2.36" (52x60mm)		1.97"x3.27" (50x83mm)
Maximum gel thickness	0.39" (10mm)		
Maximum sample	25 samples		
Buffer volume	0.05gal (200ml)		0.11gal (400ml)
Lid	Safety Ventilation		
Tray	Black well-visualization strip		
	Migration distance index line		
	Agarose level, 0.2" (5mm)		N / A
Rapid casting gel	Use gel maker stand		

Ordering Information

Cat. No	Product Description
MJ-105-S	Snow Mini Horizontal Electrophoresis System
MJ-105-R	Red Mini Horizontal Electrophoresis System
MT-108	Wide Mini Horizontal Electrophoresis System

	Cat. No.	Tooth Thickness	Tooth Width	Sample Volume for a 5mm thick gel (ul)
A	MJ-C01	1.0mm	4.0mm	20
B	MJ-C01	1.5mm	2.8mm	21
C	MT-C03	1.0mm	36.0mm	180
D	MT-C03	1.0mm	17.0mm	85
E	MT-C03	1.0mm	3.0mm	15
F	MT-C03	1.0mm	6.0mm	30
G	MT-C03	1.0mm	6.5mm	32.5

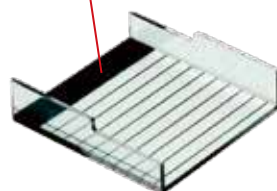


Multichannel pipette compatible

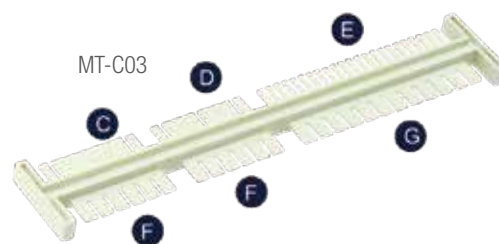


Easy sample loading

Black well-visualization



MT-C03



Agarose level (5mm)

Migration distance index line



Connection trays

For MJ-105 series

Single Electrophoresis Packages

MJS-100P	Package of MJ-105-S and MP-100
MJS-Mini300	Package of MJ-105-S and Mini-300
MJR-100P	Package of MJ-105-R and MP-100
MJR-Mini300	Package of MJ-105-R and Mini-300



MJS-100P



MJS-Mini300



MJR-100P



MJR-Mini300



MJSS-Mini300



MJST-Mini300



MJSR-Mini300



MJRR-Mini300



MJRT-Mini300

Dual Electrophoresis Packages

MJSS-Mini300	Package of 2 x MJ-105-S and Mini300
MJST-Mini300	Package of MJ-105-S & MT-108 and Mini300
MJSR-Mini300	Package of MJ-105-S & MJ-105-R and Mini300
MJRR-Mini300	Package of 2 x MJ-105-R and Mini300
MJRT-Mini300	Package of MJ-105-R & MT-108 and Mini300

Accessories

Cat. No.	Product Description
MJ-B01-S	Snow tank and lid, without accessories
MJ-B01-R	Red tank and lid, without accessories
MJ-G01	Gel maker stand
MJ-T01	2.05"x2.36" (52x60mm) Tray
MJ-T02	4.21"x2.36" (107x60mm) Tray
MJ-C01	Analytical comb 8 teeth x 2 for mini gel & 17 teeth for midi gel (thickness: 1.0mm), 12 teeth x 2 for mini gel & 25 teeth for midi gel (thickness: 1.5mm)
MT-C03	Analytical comb 1.0mm-thick (multiple pipette compatible 23 teeth, Prep 1 & Maker 2, Prep 2 & Maker 2 on one side; 6 teeth x 2 for mini gel & 12 teeth for midi gel on the other side)
MT-P01	Electrophoresis cable (Black & red)
MJ-CASTER-C	2 x MJ-G01; 4 x MJ-T01; 2 x MJ-T02; 1 x MJ-C01 and 1 x MT-C03



MJ-B01-S



MJ-B01-R



MJ-G01



MJ-T01



MJ-T02



MJ-C01



MT-C03



MT-P01



MJ-CASTER-C

For MT-108

Single Electrophoresis Packages

MT-100P	Package of MT-108 and MP-100
MT-Mini300	Package of MT-108 and Mini-300

Dual Electrophoresis Packages

MJST-Mini300	Package of MJ-105-S & MT-108 and Mini-300
MJRT-Mini300	Package of MJ-105-R & MT-108 and Mini-300
MTT-Mini300	Package of 2 x MT-108 and Mini-300



MT-100P



MT-Mini300



MJST-Mini300



MJRT-Mini300



MTT-Mini300

Accessories

Cat. No.	Product Description
MT-B01	Wide Mini Tank and lid, without accessories
MT-G01	Gel maker stand
MT-T01	4.13"x3.27" (105x83mm) Tray
MT-T02	1.97"x3.27" (50x83mm) Tray
MJ-C01	Analytical comb 8 teeth x 2 for mini gel & 17 teeth for midi gel (thickness: 1.0mm), 12 teeth x 2 for mini gel & 25 teeth for midi gel (thickness: 1.5mm)
MT-C03	Analytical comb 1.0mm-thick (multiple pipette compatible 23 teeth, Prep 1 & Maker 2, Prep 2 & Maker 2 on one side; 6 teeth x 2 for mini gel & 12 teeth for midi gel on the other side)
MT-P01	Electrophoresis cable (Black & red)
MT-CASTER-C	1 x MT-G01; 1 x MT-T01; 2 x MT-T02; 1 x MJ-C01 and 1 x MT-C03



MT-B01



MT-G01



MT-T01



MT-T02



MJ-C01



MT-C03



MT-P01



MT-CASTER-C

Midi plus/plus-1/plus-2 Horizontal Electrophoresis System

ME7-7-10

ME10-7-10

ME15-7-10-15

Our Midi series have been designed for routine horizontal gel electrophoresis with wide degrees of versatility. All of our gel tanks are made from injection molded construction for durable and leak proof environment. Varieties of special combs are available to maximize your sample size.

Midi plus includes the 7x7 and 7x10cm gel trays for a maximum of 64 samples, designed for low to medium numbers of samples. Midi plus-1 includes 10x7 and 10x10cm gel tray to allow 100 samples per gel to be resolved. Ideal for those routinely check medium numbers of samples over short to medium gel run lengths.

The Midi plus-2 system provides three sizes of trays to maximize your sample size, 15x7, 15x10, 15x15cm. Midi plus-2 allows up to 210 samples per run per gel.



Features

Easy click lid removal

- Low buffer consumption
- Single molded tank
- Two tray options available(ME7-7-10, ME10-7-10)
- Three tray options available(ME15-7-10-15)
- Easy sample loading
- Multi-channel pipette compatibility
- Great indications for gel making and running
- No tape, clamps or springs needed

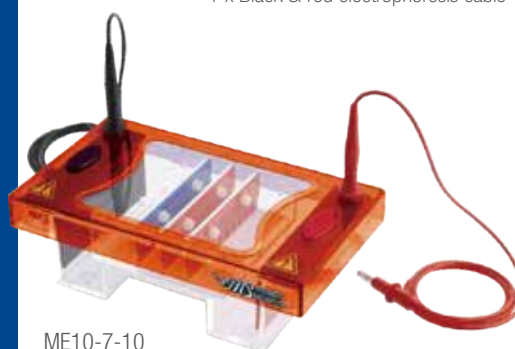


ME7-7-10

CE

ME7-7-10 is offered as a complete system for the user to cast, and run electrophoresis. including:

- 1 x Electrophoresis tank & lid
- 1 x ME7-UV7 (7x7cm UV tray)
- 1 x ME7-UV10 (7x10cm UV tray)
- 2 x ME7-8-1 (8 sample combs, 1mm thick)
- 1 x ME7-UV DAM (UV tray dams, 2pcs)
- 1 x ME7-LG (Loading guides (Set))
- 1 x Black & red electrophoresis cable



ME10-7-10

CE

ME10-7-10 is offered as a complete system for the user to cast, and run electrophoresis. including:

- 1 x Electrophoresis tank & lid
- 1 x ME10-UV7 (10x7cm UV tray)
- 1 x ME10-UV10 (10x10cm UV tray)
- 2 x ME10-16-1 (16 sample combs, 1mm thick)
- 1 x ME10-UV DAM (UV tray dams, 2pcs)
- 1 x ME10-LG (Loading guides (Set))
- 1 x Black & red electrophoresis cable



ME15-7-10-15

CE

ME15-7-10-15 is offered as a complete system for the user to cast, and run electrophoresis. including:

- 1 x Electrophoresis tank & lid
- 1 x ME15-UV7 (15x7cm UV tray)
- 1 x ME15-UV10 (15x10cm UV tray)
- 1 x ME15-UV15 (15x15cm UV tray)
- 2 x ME15-20-1 (20 sample combs, 1mm thick)
- 1 x ME15-UV DAM (UV tray dams, 2pcs)
- 1 x ME15-LG (Loading guides (Set))
- 1 x Black & red electrophoresis cable

Specification

Cat. No.	ME7-7-10	ME10-7-10	ME15-7-10-15
Dimension (WxLxH)	8.27"x3.54"x3.54" (210x90x90mm)	8.66"x4.92"x3.54" (220x125x90mm)	10.43"x6.89"x3.54" (265x175x90mm)
Gel dimension (WxL)	2.76"x2.76" (70x70mm), 2.76"x3.94" (70x100mm)	3.94"x2.76" (100x70mm), 3.94"x3.94" (100x100mm)	5.91"x2.76" (150x70mm), 5.91"x3.94" (150x100mm), 5.91"x5.91" (150x150mm)
Maximum sample	32 for 2.76"x2.76" (70x70mm) Tray (2x16 sample combs)	50 for 3.94"x2.76" (100x70mm) Tray (2x25 sample combs)	70 for 5.91"x2.76" (150x70mm) Tray (2x35 sample combs)
	64 for 2.76"x3.94" (70x100mm)Tray (4x16 sample combs)	100 for 3.94"x3.94" (100x100mm) Tray(4x25 sample combs)	140 for 5.91"x3.94" (150x100mm) Tray(4x35 sample combs)
			210 for 5.91"x5.91" (150x150mm) Tray(6x35 sample combs)
Buffer volume	0.06gal (225ml)	0.08gal (300ml)	0.13gal (500ml)
Material	Injection molded construction		
	Durable, leak proof environment for complete safety and long life		
Cassette type electrode	Inexpensive, easy to replace		
	Made of 99.99% corrosion resistant pure platinum		
Electrical safety	Lid can only be fastened in one way		
	Upon lid removal, power is disconnected from buffer chamber		
Rapid casting gel	Use casting dams		

Ordering Information

Cat. No.	Product Description
ME7-7-10	Midi plus, 7x7cm & 7x10cm UV tray, 2x8 sample 1mm thick combs, loading guides and dams
ME7-Mini300	Package of ME 7-7-10 and Mini-300
ME7-UV7	Midi plus, 7x7cm UV tray
ME7-UV10	Midi plus, 7x10cm UV tray
ME7-UVS	7cm UV gel scoop
ME7-UVDAM	Midi plus, UV tray dams (2 pcs)
ME10-7-10	Midi plus-1, 10x7cm & 10x10cm UV tray, 2x16 sample 1mm thick combs, loading guides and dams
ME10-Mini300	Package of ME 10-7-10 and Mini-300
ME10-UV7	Midi plus-1, 10x7cm UV tray
ME10-UV10	Midi plus-1, 10x10cm UV tray
ME10-UVS	10cm UV gel scoop
ME10-UVDAM	Midi plus-1, UV tray dams (2 pcs)
ME7/10-FC	Midi plus/Midi plus-1, Flexicaster
ME15-7-10-15	Midi plus-2, 15x7, 10 & 15cm UV tray, 2x20 sample 1mm thick combs, loading guides and dams
ME15-Mini300	Package of ME 15-7-10-15 and Mini-300
ME15-UV7	Midi plus-2, 15x7cm UV tray
ME15-UV10	Midi plus-2, 15x10cm UV tray
ME15-UV15	Midi plus-2, 15x15cm UV tray
ME15/20-FC	Midi plus-2/Maxi, Flexicaster
ME15-UVS	15cm UV gel scoop
ME15-UVDAM	Midi plus-2, UV tray dams (2 pcs)



Casting dams allow gels to be rapidly cast



Mini-300

Recommended economic power supply

For ME7-7-10

Cat. No.	Comb Description	Sample Volume
ME7-1-0.75	Prep 1, Marker 1, 0.75mm thick	152ul
ME7-2-0.75	Prep 2, Marker 2, 0.75mm thick	68ul
ME7-4-0.75	Prep 4, Marker 2, 0.75mm thick	36ul
ME7-8MC-0.75	8 sample MC, 0.75mm thick	8ul
ME7-8-0.75	8 sample, 0.75mm thick	19ul
ME7-10-0.75	10 sample, 0.75mm thick	14ul
ME7-12MC-0.75	12 sample MC, 0.75mm thick	10ul
ME7-16-0.75	16 sample, 0.75mm thick	7ul

ME7-1-1	Prep 1, Marker 1, 1mm thick	203ul
ME7-2-1	Prep 2, Marker 2, 1mm thick	90ul
ME7-4-1	Prep 4, Marker 2, 1mm thick	48ul
ME7-8MC-1	8 sample MC, 1mm thick	11ul
ME7-8-1	8 sample, 1mm thick	25ul
ME7-10-1	10 sample, 1mm thick	18ul
ME7-12MC-1	12 sample MC, 1mm thick	14ul
ME7-16-1	16 sample, 1mm thick	10ul

Cat. No.	Comb Description	Sample Volume
ME7-1-1.5	Prep 1, Marker 1, 1.5mm thick	304ul
ME7-2-1.5	Prep 2, Marker 2, 1.5mm thick	135ul
ME7-4-1.5	Prep 4, Marker 2, 1.5mm thick	72ul
ME7-8MC-1.5	8 sample MC, 1.5mm thick	17ul
ME7-8-1.5	8 sample, 1.5mm thick	37ul
ME7-10-1.5	10 sample, 1.5mm thick	27ul
ME7-12MC-1.5	12 sample MC, 1.5mm thick	20ul
ME7-16-1.5	16 sample, 1.5mm thick	15ul

ME7-1-2	Prep 1, Marker 1, 2mm thick	405ul
ME7-2-2	Prep 2, Marker 2, 2mm thick	180ul
ME7-4-2	Prep 4, Marker 2, 2mm thick	96ul
ME7-8MC-2	8 sample MC, 2mm thick	23ul
ME7-8-2	8 sample, 2mm thick	50ul
ME7-10-2	10 sample, 2mm thick	36ul
ME7-12MC-2	12 sample MC, 2mm thick	27ul
ME7-16-2	16 sample, 2mm thick	20ul



Fast fix slot electrodes, no need rewiring



Complete package offers as standard

For ME10-7-10

Cat. No.	Comb Description	Sample Volume
ME10-1-0.75	Prep 1, Marker 1, 0.75mm thick	270ul
ME10-2-0.75	Prep 2, Marker 2, 0.75mm thick	118ul
ME10-4-0.75	Prep 4, Marker 2, 0.75mm thick	57ul
ME10-8-0.75	8 sample, 0.75mm thick	30ul
ME10-10MC-0.75	10 sample MC, 0.75mm thick	20ul
ME10-12-0.75	12 sample, 0.75mm thick	17ul
ME10-16-0.75	16 sample, 0.75mm thick	12ul
ME10-20MC-0.75	20 sample MC, 0.75mm thick	10ul
ME10-25-0.75	25 sample, 0.75mm thick	7ul

ME10-1-1	Prep 1, Marker 1, 1mm thick	360ul
ME10-2-1	Prep 2, Marker 2, 1mm thick	158ul
ME10-4-1	Prep 4, Marker 2, 1mm thick	77ul
ME10-8-1	8 sample, 1mm thick	41ul
ME10-10MC-1	10 sample MC, 1mm thick	27ul
ME10-12-1	12 sample, 1mm thick	23ul
ME10-16-1	16 sample, 1mm thick	16ul
ME10-20MC-1	20 sample MC, 1mm thick	14ul
ME10-25-1	25 sample, 1mm thick	10ul

Cat. No.	Comb Description	Sample Volume
ME10-1-1.5	Prep 1, Marker 1, 1.5mm thick	540ul
ME10-2-1.5	Prep 2, Marker 2, 1.5mm thick	236ul
ME10-4-1.5	Prep 4, Marker 2, 1.5mm thick	115ul
ME10-8-1.5	8 sample, 1.5mm thick	61ul
ME10-10MC-1.5	10 sample MC, 1.5mm thick	41ul
ME10-12-1.5	12 sample, 1.5mm thick	34ul
ME10-16-1.5	16 sample, 1.5mm thick	24ul
ME10-20MC-1.5	20 sample MC, 1.5mm thick	20ul
ME10-25-1.5	25 sample, 1.5mm thick	15ul

ME10-1-2	Prep 1, Marker 1, 2mm thick	720ul
ME10-2-2	Prep 2, Marker 2, 2mm thick	315ul
ME10-4-2	Prep 4, Marker 2, 2mm thick	153ul
ME10-8-2	8 sample, 2mm thick	81ul
ME10-10MC-2	10 sample MC, 2mm thick	54ul
ME10-12-2	12 sample, 2mm thick	45ul
ME10-16-2	16 sample, 2mm thick	32ul
ME10-20MC-2	20 sample MC, 2mm thick	27ul
ME10-25-2	25 sample, 2mm thick	20ul

*Sample volume (SV) = Sample volume for 5mm thick gel (ul)

For ME15-7-10-15

Cat. No.	Comb Description	Sample Volume
ME15-1-0.75	Prep 1, Marker 1, 0.75mm thick	371ul
ME15-2-0.75	Prep 2, Marker 2, 0.75mm thick	169ul
ME15-4-0.75	Prep 4, Marker 2, 0.75mm thick	91ul
ME15-10-0.75	10 sample, 0.75mm thick	34ul
ME15-12-0.75	12 sample, 0.75mm thick	30ul
ME15-20-0.75	20 sample, 0.75mm thick	16ul
ME15-35-0.75	35 sample, 0.75mm thick	7ul
ME15-10MC-0.75	10 sample MC, 0.75mm thick	22ul
ME15-14MC-0.75	14 sample MC, 0.75mm thick	22ul
ME15-16MC-0.75	16 sample MC, 0.75mm thick	20ul
ME15-18MC-0.75	18 sample MC, 0.75mm thick	8ul
ME15-28MC-0.75	28 sample MC, 0.75mm thick	8ul
ME15-30MC-0.75	30 sample MC, 0.75mm thick	9ul

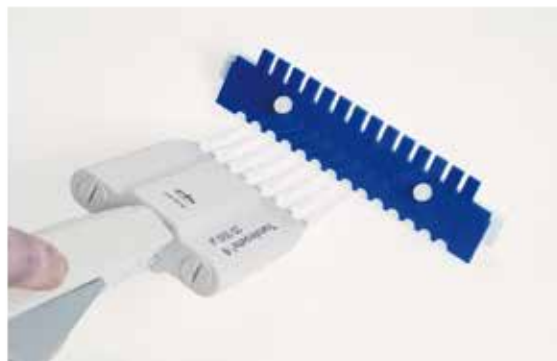
ME15-1-1	Prep 1, Marker 1, 1mm thick	495ul
ME15-2-1	Prep 2, Marker 2, 1mm thick	225ul
ME15-4-1	Prep 4, Marker 2, 1mm thick	122ul
ME15-10-1	10 sample, 1mm thick	45ul
ME15-12-1	12 sample, 1mm thick	41ul
ME15-20-1	20 sample, 1mm thick	21ul
ME15-35-1	35 sample, 1mm thick	10ul
ME15-10MC-1	10 sample MC, 1mm thick	29ul
ME15-14MC-1	14 sample MC, 1mm thick	29ul
ME15-16MC-1	16 sample MC, 1mm thick	27ul
ME15-18MC-1	18 sample MC, 1mm thick	11ul
ME15-28MC-1	28 sample MC, 1mm thick	11ul
ME15-30MC-1	30 sample MC, 1mm thick	13ul

Cat. No.	Comb Description	Sample Volume
ME15-1-1.5	Prep 1, Marker 1, 1.5mm thick	743ul
ME15-2-1.5	Prep 2, Marker 2, 1.5mm thick	338ul
ME15-4-1.5	Prep 4, Marker 2, 1.5mm thick	182ul
ME15-10-1.5	10 sample, 1.5mm thick	68ul
ME15-12-1.5	12 sample, 1.5mm thick	61ul
ME15-20-1.5	20 sample, 1.5mm thick	32ul
ME15-35-1.5	35 sample, 1.5mm thick	15ul
ME15-10MC-1.5	10 sample MC, 1.5mm thick	44ul
ME15-14MC-1.5	14 sample MC, 1.5mm thick	44ul
ME15-16MC-1.5	16 sample MC, 1.5mm thick	41ul
ME15-18MC-1.5	18 sample MC, 1.5mm thick	17ul
ME15-28MC-1.5	28 sample MC, 1.5mm thick	17ul
ME15-30MC-1.5	30 sample MC, 1.5mm thick	19ul

ME15-1-2	Prep 1, Marker 1, 2mm thick	990ul
ME15-2-2	Prep 2, Marker 2, 2mm thick	450ul
ME15-4-2	Prep 4, Marker 2, 2mm thick	243ul
ME15-10-2	10 sample, 2mm thick	90ul
ME15-12-2	12 sample, 2mm thick	81ul
ME15-20-2	20 sample, 2mm thick	43ul
ME15-35-2	35 sample, 2mm thick	20ul
ME15-10MC-2	10 sample MC, 2mm thick	59ul
ME15-14MC-2	14 sample MC, 2mm thick	59ul
ME15-16MC-2	16 sample MC, 2mm thick	54ul
ME15-18MC-2	18 sample MC, 2mm thick	23ul
ME15-28MC-2	28 sample MC, 2mm thick	23ul
ME15-30MC-2	30 sample MC, 2mm thick	25ul



Extensive range of combs
 Black: 0.75mm for ultra resolved bands
 White: 1mm supplied as standard
 Red: 1.5mm for large sample volume
 Blue: 2mm for large sample volume



MC = Multi-channel pipette compatible

*Sample volume (SV) = Sample volume for 5mm thick gel (ul)

Maxi Horizontal Gel Electrophoresis System

ME20 series ME26-16-24-32

For ME20 series

Maxi is primarily designed for resolution of high numbers of samples as in cloning or PCR experiments. Maxi allows ultra high-resolution separations over extended runs. Tray sizes correspond to standard blotter sizes. It also allows for easy sample transfer onto a membrane for further analysis. Three tray sizes are available, 20x20cm, 20x25cm and 20x10cm. Multi-channel pipette compatible combs for up to 40 samples each facilitate speed loading of up to 440 samples per gel. 50 sample combs (not multi-channel pipette compatible) allow maximum sample capability of 550 samples per gel.

For ME26-16-24-32

Maxi-plus is designed for rapid screening of very large numbers of cloning or PCR samples, and it has the maximum capacity of 672 samples per gel. This allows loading and analysis of exactly seven 96 well format micro titer plates. The large gel run length of 32cm also allows resolution of samples over a long distance for separation of complex sample bands such as in restriction fragment analysis. Maxi-plus is available with a full length tray of 26x32cm or with two other tray length options of 26x16cm and 26x24cm so that user's exact requirements can be matched. In addition to options for single length gel trays, Maxi-plus is available with all three gel tray lengths to provide the maximum flexibility, versatility and value. Buffer recirculation ports are included as standard to allow enhanced resolution over extended runs, while loading guides enhance well visibility for easy sample loading.

Features

- Low buffer consumption
- Multi-channel pipette compatibility
- Great indications for gel making and running
- No tape, clamps or springs needed

For ME20 series additional features

- Up to 450 samples per tray

For ME26-16-24-32 additional features

- Up to 672 samples per tray
- Three tray options available

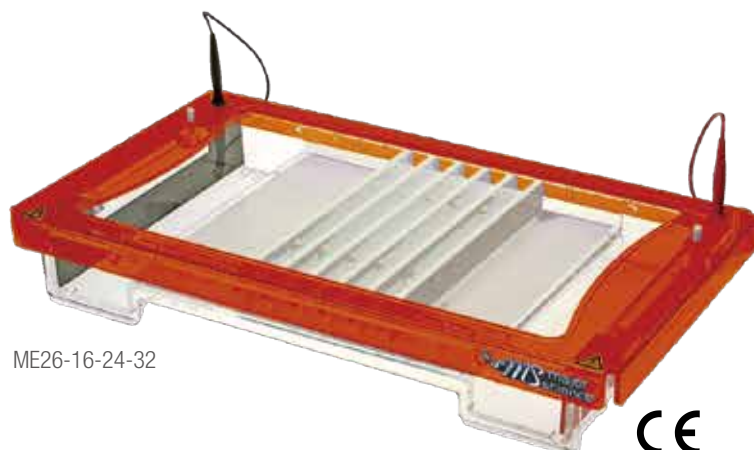


ME20 series

CE

ME20 series is offered as a complete system for the user to cast, and run electrophoresis. including:

- 1 x Electrophoresis tank & lid
- 1 x ME20-UV10 (20x10cm UV tray)
- 1 x ME20-UV20 (20x20cm UV tray)
- 1 x ME20-UV25 (20x25cm UV tray, for ME20-25 only)
- 2 x ME20-20MC-1 (20 sample combs, 1mm thick)
- 1 x ME20-UV DAM (UV tray dams, 2pcs)
- 1 x ME20-LG (Loading guides (Set))
- 1 x Black & red electrophoresis cable



ME26-16-24-32

CE

ME26-16-24-32 is offered as a complete system for the user to cast, and run electrophoresis. including:

- 1 x Electrophoresis tank & lid
- 1 x ME26-UV16 (26x16cm UV tray)
- 1 x ME26-UV24 (26x24cm UV tray)
- 1 x ME26-UV32 (26x32cm UV tray)
- 2 x ME26-28MC-1 (28 sample combs, 1mm thick)
- 1 x ME26-LG (Loading guides (Set))
- 1 x Black & red electrophoresis cable
- 1 x Flexi caster



All combs are multichannel pipette compatible



Loading guides allow easy well identification and sample loading

Specification

Cat. No.	ME20-10-20	ME20-25	ME26-16-24-32
Dimension (WxLxH)	15.55"x9.05"x3.54" (395x230x90mm)		19.69"x11.02"x3.54" (500x280x90mm)
Gel dimension (WxL)	7.87"x3.94" (200x100mm), 7.87"x7.87" (200x200mm),	7.87"x9.84" (200x250mm)	10.24"x6.3" (260x160mm), 10.24"x9.45" (260x240mm), 10.24"x12.6" (260x320mm)
Maximum sample	200 for 7.87"x3.94" (200x100mm) Tray (4x50 sample combs) 450 for 7.87"x7.87" (200x200mm) Tray (9x50 sample combs)	550 for 7.87"x9.84" (200x250mm) Tray (11x50 sample combs)	336 for 10.24"x6.3" (260x160mm) Tray (6x56 sample combs) 504 for 10.24"x9.45" (260x240mm) Tray (9x56 sample combs) 672 for 10.24"x12.6" (260x320mm) Tray (12x56 sample combs)
Buffer volume	0.32gal (1200ml)		0.37gal (1400ml)
Material	Injection molded construction		N /A
	Durable, leak proof environment for complete safety and long life		N /A
Cassette type electrode	Inexpensive, easy to replace		
	Made of 99.99% corrosion resistant pure platinum		
Electrical safety	Lid can only be fastened in one way		
	Upon lid removal, power is disconnected from buffer chamber		
Rapid casting gel	Use casting dams		Use flexible caster

Ordering Information

Cat. No.	Product Description
ME20-10-20	Maxi, 20x10 & 20x20cm UV tray, 2x20 sample combs
ME20-25	Maxi, 20x25cm UV tray, 2x20 sample combs
ME20-UV10	Maxi, 20x10cm UV tray
ME20-UV20	Maxi, 20x20cm UV tray
ME20-UV25	Maxi, 20x25cm UV tray
ME15/20-FC	Midi plus-2/Maxi, Flexicaster
ME20-UVS	20cm UV gel scoop

Cat. No.	Product Description
ME20-UV DAM	Maxi, UV tray dams (2 pcs)
ME26-16-24-32	Maxi-plus 26x16cm, 26x24cm, 26x32cm UV tray, 6x28 sample combs
ME26-UV16	Maxi plus, 26x16cm UV tray
ME26-UV24	Maxi plus, 26x24cm UV tray
ME26-UV32	Maxi plus, 26x32cm UV tray
ME26-FC	Flexible caster for gels up to 32cm. Casts 7, 10, 15,16, 20, 24 and 32cm long gels
ME26-UVS	26cm UV gel scoop

Accessories

Cat. No	Comb Description	Sample Volume
ME20-1-0.75	Prep 1, Marker 1, 0.75mm thick	506ul
ME20-2-0.75	Prep 2, Marker 2, 0.75mm thick	236ul
ME20-4-0.75	Prep 4, Marker 2, 0.75mm thick	115ul
ME20-10-0.75	10 sample, 0.75mm thick	54ul
ME20-16-0.75	16 sample, 0.75mm thick	30ul
ME20-20MC-0.75	20 sample MC, 0.75mm thick	20ul
ME20-25-0.75	25 sample, 0.75mm thick	16ul
ME20-30-0.75	30 sample, 0.75mm thick	13ul
ME20-36-0.75	36 sample, 0.75mm thick	11ul
ME20-40MC-0.75	40 sample MC, 0.75mm thick	8ul
ME20-50-0.75	50 sample, 0.75mm thick	8ul

ME20-1-1	Prep 1, Marker 1, 1mm thick	675ul
ME20-2-1	Prep 2, Marker 2, 1mm thick	315ul
ME20-4-1	Prep 4, Marker 2, 1mm thick	153ul
ME20-10-1	10 sample, 1mm thick	72ul
ME20-16-1	16 sample, 1mm thick	41ul
ME20-20MC-1	20 sample MC, 1mm thick	27ul
ME20-25-1	25 sample, 1mm thick	21ul
ME20-30-1	30 sample, 1mm thick	17ul
ME20-36-1	36 sample, 1mm thick	14ul
ME20-40MC-1	40 sample MC, 1mm thick	11ul
ME20-50-1	50 sample, 1mm thick	10ul

ME20-1-1.5	Prep 1, Marker 1, 1.5mm thick	1013ul
ME20-2-1.5	Prep 2, Marker 2, 1.5mm thick	473ul
ME20-4-1.5	Prep 4, Marker 2, 1.5mm thick	230ul
ME20-10-1.5	10 sample, 1.5mm thick	108ul

Cat. No	Comb Description	Sample Volume
ME20-16-1.5	16 sample, 1.5mm thick	61ul
ME20-20MC-1.5	20 sample MC, 1.5mm thick	41ul
ME20-25-1.5	25 sample, 1.5mm thick	32ul
ME20-30-1.5	30 sample, 1.5mm thick	26ul
ME20-36-1.5	36 sample, 1.5mm thick	22ul
ME20-40MC-1.5	40 sample MC, 1.5mm thick	17ul
ME20-50-1.5	50 sample, 1.5mm thick	16ul

ME20-1-2	Prep 1, Marker 1, 2mm thick	1350ul
ME20-2-2	Prep 2, Marker 2, 2mm thick	630ul
ME20-4-2	Prep 4, Marker 2, 2mm thick	306ul
ME20-10-2	10 sample, 2mm thick	144ul
ME20-16-2	16 sample, 2mm thick	81ul
ME20-20MC-2	20 sample MC, 2mm thick	54ul
ME20-25-2	25 sample, 2mm thick	42ul
ME20-30-2	30 sample, 2mm thick	34ul
ME20-36-2	36 sample, 2mm thick	29ul
ME20-40MC-2	40 sample MC, 2mm thick	23ul
ME20-50-2	50 sample, 2mm thick	21ul

ME26-28MC-0.75	28 sample MC, 0.75mm thick	25ul
ME26-56MC-0.75	56 sample MC, 0.75mm thick	10ul
ME26-28MC-1	28 sample MC, 1mm thick	34ul
ME26-56MC-1	56 sample MC, 1mm thick	14ul
ME26-28MC-1.5	28 sample MC, 1.5mm thick	51ul
ME26-56MC-1.5	56 sample MC, 1.5mm thick	20ul
ME26-28MC-2	28 sample MC, 2mm thick	68ul
ME26-56MC-2	56 sample MC, 2mm thick	27ul

Midi96 plus-1 & Super plus Gel System

ME-96 series

ME-Level4

The Midi96 plus-1 Gel System is ideal for high throughput electrophoresis of PCR products or samples containing a small number of DNA bands. Its 10x12cm (WxL) gel dimension and 96-well comb block format correspond to the standard microplate configuration, with additional lanes for markers. Two different types of comb are available: one which has 8 wells and one additional lane for DNA markers and one which has 8 wells and 2 additional lanes for markers. The offset layout of the wells allows a maximum run length of 1.8cm per well, resulting in improved separation. Midi96 plus-1 can accommodate samples from a 96-well plate – samples can be loaded directly using 8-channel pipettes. As with all ME series units, leak-proof casting is simplified using the supplied casting dams while their ultra-compact size minimises buffer usage and bench space requirements. Midi96 plus-1 Stretch Systems are also available for those users requiring an extended run length per well of up to 3.6cm.

The ME-Level4 is a compact system capable of running a maximum 1200 samples simultaneously by stacking up to 4 horizontal gels. This achieves high sample throughput while maintaining the time- and space-saving advantages of a small, compact unit.

Each Super plus Gel System is supplied with 4 gel trays and 8 combs as standard, while additional trays and combs may be purchased as required. Two double-sided comb and three tray length formats are also available. An optional flexi caster, either supplied separately or as a package with the Super plus Gel System, is also available that allows up to four 8x6, 8x12 and 8x18cm gel trays to be cast simultaneously outside the tank.

For ME-96 series Features

- Designed for loading of DNA samples from multi-well plates
- Ideal for analysis of up to 96 PCR-fragment length polymorphisms loaded from 96-well microplates or thermal cycler blocks
- Average run-time is just 15 to 30 minutes
- Direct microplate format for easy lane identification
- Multichannel pipette compatible combs for speed loading

For ME-Level4 Features

- Separates a maximum 1200 samples in as little as 15 minutes in 4 stacked horizontal gel trays
- Multichannel-compatible combs and gel plate configurations compatible with microplates and thermal cycler blocks ensure rapid loading of DNA minipreps and PCR products by 8-channel pipette
- Double-sided 1.5-mm-thick combs allow more sample volume to be loaded into each well
- Three gel tray options available in 8x6, 8x12 and 8x18cm (WxL) sizes for maximum flexibility
- Small footprint area reduces uptake of bench space within the laboratory
- Ideal for rapid checking of large numbers of samples from PCR and cloning

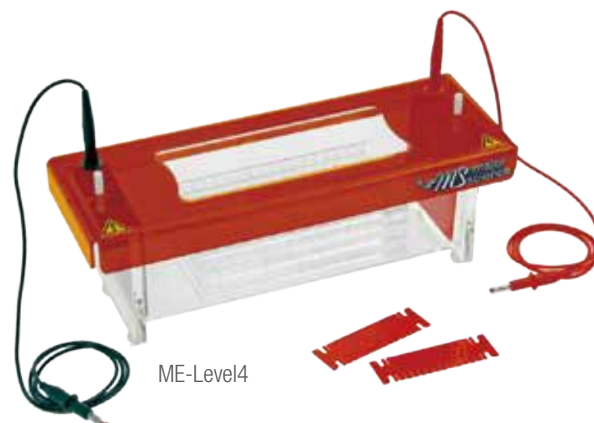


ME-96 series

CE



Ideal for 96-well microplates or thermal cycler blocks



ME-Level4

CE



Capable of running a maximum 1200 samples by stacking up to 4 horizontal gel trays

Specification

Cat. No.	ME-96	ME-96ST	ME-Level4
Gel dimension (WxL)	3.94"x4.72" (100x120mm)	3.94"x9.45" (100x240mm)	3.15"x2.36" (80x60mm)(Option) 3.15"x4.72" (80x120mm)(Option) 3.15"x7.09" (80x180mm)
Dimension (WxLxH)	8.66"x4.92"x3.54" (220x125x90mm)	18.31"x4.92"x3.15" (465x125x80mm)	13.78"x4.33"x6.3" (350x110x160mm)
Buffer volume	0.08gal (300ml)	0.18gal (700ml)	200, 400, 600 or 800ml for 1,2,3 or 4 gel trays respectively
Max. sample capacity Per 180mm tray	96 samples plus 1 or 2 marker lanes		With 10mm run length: 306
			With 20mm run length: 144
			With 30mm run length: 72
No. of samples	8 + 1 x Marker, or 8 + 2 x Markers		1, 8, 12, 18 duocombs
Comb thickness	0.04" or 0.06" (1 or 1.5mm)		

Ordering Information

Cat. No.	Product Description
ME-96	Midi 96 plus-1, UV tray, comb block with 12x8 sample, 1mm thick combs, casting dams
ME-961.5	Midi 96 plus-1, UV tray, comb block with 12x8 sample, 1.5mm thick combs, casting dams. combs have one marker lane.
ME-96/2M	Midi 96 plus-1, UV tray, comb block with 12x8 sample, 1mm thick combs, casting dams. combs have two marker lanes.
ME-96/1.5/2M	Midi 96 plus-1, UV tray, comb block with 12x8 sample, 1.5mm thick combs, casting dams. combs have two marker lanes.
ME-96ST	Midi 96 plus-2, UV tray, comb block with 12x8 sample, 1mm thick combs, casting dams
ME-96ST1.5	Midi 96 plus-2, UV tray, comb block with 12x8 sample, 1.5mm thick combs, casting dams. combs have one marker lane.
ME-96ST/2M	Midi 96 plus-2, UV tray, comb block with 12x8 sample, 1mm thick combs, casting dams. combs have two marker lanes.
ME-96ST/1.5/2M	Midi 96 plus-2, UV tray, comb block with 12x8 sample, 1.5mm thick combs, casting dams. combs have two marker lanes.
ME-Level4	Super plus, multi-level gel chamber, includes 4x18cm UV trays, 8 x18/8 sample 1.5mm combs
ME-Level4/EXCAS	Super plus, as above but with external caster for 4 gels

Accessories

Cat. No.	Product Description
ME-96-8-1-CB	Midi96 plus-1 Comb 8 sample MC+1 Marker, 1mm thick comb block
ME-96-8-1.5-CB	Midi96 plus-1 Comb 8 sample MC+1 Marker, 1.5mm thick comb block
ME-96-8-1/2M-CB	Midi96 plus-1 Comb 8 sample MC+2 Markers, 1mm thick comb block
ME-96-8-1.5/2M-CB	Midi96 plus-1 Comb 8 sample MC+2 Markers, 1.5mm thick comb block
ME-96ST-8-1-CB	Midi96 plus-2 Comb 8 sample MC+1 Marker, 1mm thick comb block
ME-96ST-8-1.5-CB	Midi96 plus-2 Comb 8 sample MC+1 Marker, 1.5mm thick comb block
ME-96ST-8-1/2M-CB	Midi96 plus-2 Comb 8 sample MC+2 Markers, 1mm thick comb block
ME-96ST-8-1.5/2M-CB	Midi96 plus-2 Comb 8 sample MC+2 Markers, 1.5mm thick comb block
ME-96-8-1	Midi96 plus-1 Comb 8 sample MC, 1mm thick. one Marker lane
ME-96-8-1.5	Midi96 plus-1 Comb 8 sample MC, 1.5mm thick. one Marker lane
ME-96-8-1/2M	Midi96 plus-1 Comb 8 sample MC, 1mm thick. two Marker lanes
ME-96-8-1.5/2M	Midi96 plus-1 Comb 8 sample MC, 1.5mm thick. two Marker lanes
ME10-UV96	Midi plus-1, 96 well tray
ME10-UV96ST	Midi plus-1 STRETCH, 96 well tray
ME-L4-UV6	8x6cm tray
ME-L4-UV12	8x12cm tray
ME-L4-UV18	8x18cm tray
ME-L4-EXCASTER	External caster for ME-Level4 (4 Trays)
ME-L4-12/1-1	12/1 sample 1mm combs
ME-L4-18/8-1	18/8 sample 1mm combs
ME-L4-12/1-1.5	12/1 sample 1.5mm combs
ME-L4-18/8-1.5	18/8 sample 1.5mm combs

Mini Vertical Gel Electrophoresis Apparatus

MV-10DSYS

Mini Vertical is an injection molded vertical electrophoresis system providing a leak-proof environment and safe operation. Its vertical tank is designed for blotting compatibility. The dual 10x10cm plate is the most popular application and it is capable of handling up to 4 plates. In addition, packages with Mini 300V Power supply is ideally offered to individuals in the laboratory at a competitive and acceptable pricing to avoid time waiting for basic instruments and to accelerate experimental progress. Simple rapid and leak-proof gel casting.



1
Insert glass plates and slide gates to create efficient seal.



2
Transfer to casting base and tighten cams.



3
It is best to turn the cams in opposite directions to each other.



4
Pour gel solution, insert combs and allow gel to polymerize.



5
Transfer to tank, fill with buffer and run.

Features

- Low buffer consumption
- Single molded tank
- Up to 4 gels run at one time
- Great indications for gel making and running
- Ice cooling pack
- Easy gel casting and no gel leakage
- Competitive pricing
- Compatible with all precast gels (10x10cm or 10x8cm)



MV-10DSYS **CE**

This product is offered as a complete system for the user to cast, and run electrophoresis. including:

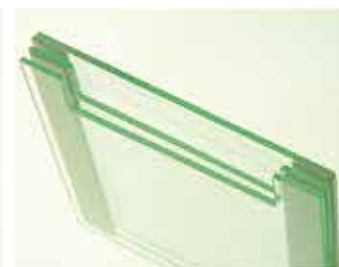
- 1 x Electrophoresis tank & lid & inner running module
- 1 x MV-10NG (10x10cm notched glass plates, 2mm thick, pk/2)
- 1 x MV-10PGS1 (10x10cm plain glass plates with 1mm bonded spacers, pk/2)
- 1 x MV-10DP (dummy plate)
- 2 x MV-10-12-1 (12 sample combs, 1mm thick)
- 1 x MV-10DCAST (10x10cm casting base)
- 1 x MV 10ICB (mini cooling pack)
- 1 x MS-DAG-GT01 (silicone water repellent spray 5ml)
- 1 x Black & red electrophoresis cable



Extensive range of combs
Black: 0.75mm for ultra resolved bands
White: 1mm supplied as standard
Red: 1.5mm for large sample volume
Blue: 2mm for large sample volume



MC = Multi-channel pipette compatible



Run up to 4 gels at one time



MV10-Mini300

Specification

Cat. No.	MV-10DSYS
Dimension (WxLxH)	7.48"x5.12"x5.91" (190x130x150mm)
Plate dimension (WxL)	3.94" 3.94" (100x100mm)
Gel dimension (WxL)	3.35"x3.15" (85x80mm)
Maximum sample	80 samples, 20 samples per gel
Buffer volume	0.07gal -0.32gal (250 -1200ml)
Ice cooling pack	Yes

Cat. No.	MV-10DSYS
Dummy plate and casting base	Yes
Material	Injection molded construction
	Durable, leak proof environment for complete safety and long life
Electrical safety	Lid can be fastened in only one way
	Upon lid removal, power is disconnected from buffer chamber
Rapid casting gel	Use gel maker stand

Ordering Information

Cat. No.	Product Description
MV-10DSYS	Complete Mini Vertical Gel Electrophoresis Apparatus
	Mini 10x10cm Dual, 2 sets of glass plates with 1mm thick bonded spacers
	2x12 sample, 1mm thick combs, cooling pack, dummy plate and casting base
MV10-Mini300	Package of MV-10DSYS and Mini-300
MV10EXCASTER	External Casting Upstand - no casting base
MV-10DCAST	10x10cm casting base
MV-10DCASTM	Replacement Silicone Mat for 10x10cm casting base
MV-10DIRM	Inner running module
MV-10ICB	Mini cooling pack
MV-10PG	10x10cm plain glass plates, 2mm thick (pk/2)
MV-10PGS0.75	10x10cm plain glass plates with 0.75mm bonded spacers (pk/2)
MV-10PGS1	10x10cm plain glass plates with 1mm bonded spacers (pk/2)
MV-10PGS1.5	10x10cm plain glass plates with 1.5mm bonded spacers (pk/2)
MV-10PGS2	10x10cm plain glass plates with 2mm bonded spacers (pk/2)
MV-10NG	10x10cm notched glass plates, 2mm thick (pk/2)
MV-10NGS0.75	10x10cm notched glass plates with 0.75mm bonded spacers (pk/2)
MV-10NGS1	10x10cm notched glass plates with 1mm bonded spacers (pk/2)
MV-10NGS1.5	10x10cm notched glass plates with 1.5mm bonded spacers (pk/2)
MV-10NGS2	10x10cm notched glass plates with 2mm bonded spacers (pk/2)
MV-10DP	dummy plate, 10x10cm
MV-10S0.75	10cm spacers - 0.75mm (pk/2)
MV-10S1	10cm spacers - 1mm (pk/2)
MV-10S1.5	10cm spacers - 1.5mm (pk/2)
MV-10S2	10cm spacers - 2mm (pk/2)



MV10EXCASTER

Accessories

Cat. No	Product Description	SV
MV-10-1-0.75	Comb 1 Prep, 1 Marker, 0.75mm thick	500ul
MV-10-5-0.75	Comb 5 sample, 0.75mm thick	70ul
MV-10-8MC-0.75	Comb 8 sample MC, 0.75mm thick	40ul
MV-10-9-0.75	Comb 9 sample, 0.75mm thick	35ul
MV-10-10-0.75	Comb 10 sample, 0.75mm thick	30ul
MV-10-12-0.75	Comb 12 sample MC, 0.75mm thick	25ul
MV-10-16MC-0.75	Comb 16 sample MC, 0.75mm thick	20ul
MV-10-20-0.75	Comb 20 sample, 0.75mm thick	15ul

MV-10-1-1	Comb 1 Prep, 1 Marker, 1mm thick	650ul
MV-10-5-1	Comb 5 sample, 1mm thick	100ul
MV-10-8MC-1	Comb 8 sample MC, 1mm thick	60ul
MV-10-9-1	Comb 9 sample, 1mm thick	50ul
MV-10-10-1	Comb 10 sample, 1mm thick	40ul
MV-10-12-1	Comb 12 sample, 1mm thick	35ul
MV-10-16MC-1	Comb 16 sample MC, 1mm thick	25ul
MV-10-20-1	Comb 20 sample, 1mm thick	20ul

MC = Multi-channel pipette compatible

Cat. No	Product Description	SV
MV-10-1-1.5	Comb 1 Prep, 1 Marker, 1.5mm thick	1000ul
MV-10-5-1.5	Comb 5 sample, 1.5mm thick	140ul
MV-10-8MC-1.5	Comb 8 sample MC, 1.5mm thick	80ul
MV-10-9-1.5	Comb 9 sample, 1.5mm thick	70ul
MV-10-10-1.5	Comb 10 sample, 1.5mm thick	30ul
MV-10-12-1.5	Comb 12 sample MC, 1.5mm thick	50ul
MV-10-16MC-1.5	Comb 16 sample MC, 1.5mm thick	40ul
MV-10-20-1.5	Comb 20 sample, 1.5mm thick	30ul

MV-10-1-2	Comb 1 Prep, 1 Marker, 2mm thick	1300ul
MV-10-5-2	Comb 5 sample, 2mm thick	200ul
MV-10-8MC-2	Comb 8 sample MC, 2mm thick	120ul
MV-10-9-2	Comb 9 sample, 2mm thick	100ul
MV-10-10-2	Comb 10 sample, 2mm thick	80ul
MV-10-12-2	Comb 12 sample, 2mm thick	70ul
MV-10-16MC-2	Comb 16 sample MC, 2mm thick	50ul
MV-10-20-2	Comb 20 sample, 2mm thick	40ul

SV = Sample volume for 5mm thick gel (ul)

Mini Wide / Maxi Plus Vertical Gel Electrophoresis Apparatus

MV-10WDSYS

MV-30DSYS

Mini Wide Vertical Electrophoresis System (MV-10WDSYS) with a gel width of 20cm effectively doubles the number of samples that can be resolved when compared to the Mini Vertical Electrophoresis System. This allows consistency of sample comparison on a single gel and is designed for those with greater than 20 samples to compare and resolve. Simple set up using ultra soft silicone seals guarantees trouble free glass plate loading and gel casting. Dual gaskets on the gel running insert along with notched and plain glass plates ensure leak proof gel running. Rapid set up cooling retains resolution in extended separations and also saves buffer volume without affecting run quality. 4mm thick glass plates reduce breakage and have bonded spaces for added convenience. A wide range of accessories are available to allow for many techniques to be performed using the same unit. Prep combs can be used to maximize sample loading and recovery.

The Maxi Plus Vertical Electrophoresis System (MV-30DSYS) is a large format vertical unit for running large quantities of samples at once. It is also designed as a convenient, large format vertical unit for second-dimension PAGE following first-dimension isoelectric focusing using the MIEF system.

For MV-10WDSYS Features

- Offers the capacity of two mini gels on a single gel
- Rapid gel casting and loading
- Low buffer consumption
- Run up to 4 gels at one time
- Great indications for gel making and running
- Ice cooling pack
- Easy gel casting and no gel leakage
- Competitive pricing

For MV-30DSYS Features

- Ideal for second-dimension electrophoresis
- Accepts IPG strips 24cm in length, the longest available commercially
- Rapid set-up cool packs enhance resolution, particularly during extended runs



MV-10WDSYS



This product is offered as a complete system for the user to cast, and run electrophoresis. It including:

- 1 x Electrophoresis tank & lid & inner running module
- 1 x MV-10WNG (20x10cm notched glass plates, 2mm thick, pk/2)
- 1 x MV-10WPGS1 (20x10cm plain glass plates with 1mm bonded spacers, pk/2)
- 1 x MV-10WDP (dummy plate)
- 2 x MV-20-24-1 (24 sample combs, 1mm thick)
- 1 x MV-20DCAST (20x10cm casting base)
- 1 x MV 20ICB (mini cooling pack)
- 1 x MS-DAG-GT01 (silicone water repellent spray 5ml)
- 1 x Black & red electrophoresis cable



Uses same combs as MV-20WAVESYS System



MV-30DSYS



Specification

Cat. No.	MV-10WDSYS
Dimension (WxLxH)	10.24"x6.3"x6.3" (260x160x160mm)
Plate dimension (WxL)	7.87"x3.94" (200x100mm)
Gel dimension (WxL)	7.09"x3.15" (180x80mm)
Maximum sample	192 samples, 48 samples per gel
Buffer volume	0.16gal - 0.74gal (600 - 2800ml)
Ice cooling pack	Yes
Dummy plate and casting base	Yes
Electrical safety	Lid can be fastened in only one way Upon lid removal, power is disconnected from buffer chamber
Rapid casting gel	Use gel maker stand
Cat. No.	MV-30DSYS
Dimension (WxLxH)	14.17"x7.09"x12.99" (360x180x330mm)
Plate dimension (WxL)	11.81"x8.66" (300x220mm)
Gel dimension (WxL)	11.02"x7.87" (280x200mm)
Max. sample capacity	300 samples per run; 75 per gel
Buffer volume	0.48 - 2.22gal (1800 - 8400ml)
Comb options	
No. of teeth	1, 2, 4, 28 MC, 56 MC, 75
Thicknesses	0.25, 0.35, 0.5, 1, 1.5, 2mm

Ordering Information

Cat. No.	Product Description
MV-10WDSYS	Mini Wide Vertical Gel Electrophoresis Apparatus
	Mini Wide 20x10cm Dual, 2 sets of glass plates with 1mm thick bonded spacer
	2x24 sample, 1mm thick combs, cooling pack, dummy plate and casting base
MV-20DCAST	Maxi casting base for MV-10WDSYS & MV-ZODSYS
MV-20DCASTM	Replacement rubber mat for 20x10cm casting base
MV-10WDIRM	Inner running module
MV-20ICB	Maxi cooling pack
MV-10WNG	20x10cm notched glass plates, 4mm thick (pk/2)
MV-10WPG	20x10cm plain glass plates, 4mm thick (pk/2)
MV-10WPGS0.75	20x10cm plain glass plates with 0.75mm bonded spacers (pk/2)
MV-10WPGS1	20x10cm plain glass plates with 1mm bonded spacers (pk/2)
MV-10WPGS1.5	20x10cm plain glass plates with 1.5mm bonded spacers (pk/2)
MV-10WPGS2	20x10cm plain glass plates with 2mm bonded spacers (pk/2)
MV-10WNGS0.75	20x10cm notched glass plates with 0.75mm bonded spacers (pk/2)
MV-10WNGS1	20x10cm notched glass plates with 1mm bonded spacers (pk/2)
MV-10WDP	Dummy plate, 20x10cm
MV-30DSYS	Maxi Plus Vertical Electrophoresis System with base unit

Optional Combs *For MV-10WDSYS optional combs, please refer to [P47](#)

Cat. No.	Product Description	Sample Volume
MV-30-1-1	Comb 1 Prep, 1 Marker, 1mm thick	2250ul
MV-30-2-1	Comb 2 samples, 1mm thick	1125ul
MV-30-4-1	Comb 4 samples, 1mm thick	550ul
MV-30-28MC-1	Comb 28 samples, 1mm thick MC compatible	80ul
MV-30-56MC-1	Comb 56 samples, 1mm thick MC compatible	40ul
MV-30-75-1	Comb 75 samples, 1mm thick	25ul
MV-30-1-1.5	Comb 1 Prep, 1 Marker, 1.5mm thick	3375ul
MV-30-2-1.5	Comb 2 samples, 1.5mm thick	1680ul
MV-30-4-1.5	Comb 4 samples, 1.5mm thick	825ul
MV-30-28MC-1.5	Comb 28 samples, 1.5mm thick MC compatible	120ul
MV-30-56MC-1.5	Comb 56 samples, 1.5mm thick MC compatible	60ul
MV-30-75-1.5	Comb 75 samples, 1.5mm thick	37ul

Maxi WAVE Vertical Electrophoresis System

MV-20WAVESYS

The Maxi WAVE Vertical Electrophoresis System is our latest product innovation for large-format vertical gel electrophoresis. Designed to perform a variety of separations, including first-and second-dimension SDS-PAGE, native, preparative, gradient and high-resolution nucleic acid electrophoresis, plus capillary tube gel IEF and electroblotting, the MV-20WAVESYS is one of the most versatile maxi vertical systems available.

By introducing innovative, new vertical screw-clamp technology within the PAGE insert only four screws are now necessary to secure as many 20x20 gels. This gives the MV20 WAVE system the elective advantage of a much faster set up speed compared to competitor products whose traditional clamping configurations require as many as 24 screws to secure just two glass plates. In addition, the WAVE's vertical screw-clamp configuration distributes pressure evenly along the height of the gel rather than in the center to eliminate plate bowing and gel compression, but still maintains a leak-proof seal during casting; while the ergonomic wave-like design of the PAGE insert aids both handling and set up.

Features

- More gels — run 2 to 4 gels simultaneously
- Customize your system — for second-dimension runs with 18cm IPG strips and gels using the IEF conversion kit
- Utilize modular inserts — with the same universal tank and lid to extend the application of your standard WAVE unit to create a complete 2-D or blotting system.
- Vertical screw — clamps distribute pressure evenly along the height of the gel to prevent plate bowing and gel compression
- Glass plates compress gently against a flat, level gasket to prevent current leakage from the inner buffer chamber during electrophoresis
- Detachable inner cooling coil connects to the laboratory water supply or a recirculating chiller to provide uniform, smile-free electrophoresis, while allowing runs to be performed at higher voltage
- Deep gel tank with adequate clearance beneath the glass plates to allow a magnetic stirrer to maintain buffer recirculation and uniform pH
- Dual purpose PAGE insert eliminates time-consuming transfer of glass plates between separate casting and running modules
- Ground glass plates with bonded injection moulded spacers consistent with comb thickness ensure "clean" well formation, as well as the correct alignment for leak-free casting; also eliminate the need for easily mislaid and awkward to use spacer aligners
- Ultra-soft silicone mat within cam-caster compensates for glass plate misalignment to ensure leak-free casting
- Widest selection of combs allow separation of up to 192 samples
- Asymmetric lid design and color-coded screw pins in PAGE insert prevent polarity reversal



MV-20WAVESYS CE



WAVE Maxi Vertical Component parts

1. Lid and power cables
2. PAGE insert
3. Vertical screw-pin
4. Clamping bars
5. Glass plates
6. Inner buffer chamber
7. Gasket
8. Detachable cooling coil
9. Outer tank
10. Cam-pin caster
11. Ultra-soft casting mat
12. Combs

Specification

Cat. No.	MV-20WAVESYS
Dimension (WxLxH)	Approx. 11.81"x7.08"x10.93" (300x180x270mm)
Plate dimension (WxL)	7.87"x7.87" (200x200mm)
Gel dimension (WxL)	6.3"x6.89" (160x175mm)
Maximum sample	192 samples, 48 samples per gel
Buffer volume	0.32-1.48gal (1200 - 5600ml)
Cooling method	Cooling coil
Dummy plate and casting base	Yes
Material	Injection molded construction Durable, leak proof environment for complete safety and long life
Electrical safety	Lid can only be fastened in one way On removal, power is disconnected from buffer chamber
Rapid casting gel	Use casting dams

Ordering Information



Cat. No.	Product Description
MV-20WAVESYS	Complete Maxi WAVE Vertical Gel Electrophoresis Apparatus
	Maxi WAVE 20x20cm Dual, 2 sets of glass plates with 1mm thick bonded spacers
	2x24 sample, 1mm thick combs, cooling coil, dummy plate and casting base
MV-20WAVECAST	20x20cm dual casting base
MV-20WAVEDCASTM	Replacement Silicone Rubber Mat for 20x20cm casting base
MV-20WAVEDIRM	Inner PAGE Running Module
MV-20WAVE-CC	Detachable Cooling Coil
MV-20NG	20x20cm notched glass plates, 4mm thick (pk/2)
MV-20PG	20x20cm plain glass plates, 4mm thick (pk/2)
MV-20PGS0.75	20x20cm plain glass plates with 0.75mm bonded spacers (pk/2)
MV-20PGS1	20x20cm plain glass plates with 1mm bonded spacers (pk/2)
MV-20PGS1.5	20x20cm plain glass plates with 1.5mm bonded spacers (pk/2)
MV-20PGS2	20x20cm plain glass plates with 2mm bonded spacers (pk/2)
MV-20DP	Dummy plate, 20x20cm
MV-20S0.75	20cm spacers -0.75mm (pk/2)
MV-20S1	20cm spacers -1mm (pk/2)
MV-20S1.5	20cm spacers -1.5mm (pk/2)
MV-20S2	20cm spacers -2mm (pk/2)
MV-20WAVE-IEFKIT	IEF Conversion for 18cm IPG strips and tube gels, includes: 1 set of plain glass plates with bonded spacer, 0.6x20cm (WxH); and 2x2-D combs with one 3.5mm marker lane and one 18cm preparatory well

Optional combs

SV = Sample volume for 5mm thick gel (ul)

Cat. No	Product Description	SV
MV-20-1-0.75	Comb 1 Prep, 1 Marker, 0.75mm thick	1100ul
MV-20-5-0.75	Comb 5 sample, 0.75mm thick	160ul
MV-20-10-0.75	Comb 10 sample, 0.75mm thick	80ul
MV-20-18MC-0.75	Comb 18 sample MC, 0.75mm thick	40ul
MV-20-24-0.75	Comb 24 sample, 0.75mm thick	30ul
MV-20-30-0.75	Comb 30 sample, 0.75mm thick	25ul
MV-20-36MC-0.75	Comb 36 sample MC, 0.75mm thick	20ul
MV-20-48-0.75	Comb 48 sample, 0.75mm thick	15ul
MV-20-1-1	Comb 1 Prep, 1 Marker, 1mm thick	1500ul
MV-20-5-1	Comb 5 sample, 1mm thick	200ul
MV-20-10-1	Comb 10 sample, 1mm thick	100ul
MV-20-18MC-1	Comb 18 sample MC, 1mm thick	50ul
MV-20-24-1	Comb 24 sample, 1mm thick	40ul
MV-20-30-1	Comb 30 sample, 1mm thick	35ul
MV-20-36MC-1	Comb 36 sample MC, 1mm thick	25ul
MV-20-48-1	Comb 48 sample, 1mm thick	20ul
MV-20-1-1.5	Comb 1 Prep, 1 Marker, 1.5mm thick	2200ul
MV-20-5-1.5	Comb 5 sample, 1.5mm thick	320ul
MV-20-10-1.5	Comb 10 sample, 1.5mm thick	160ul
MV-20-18MC-1.5	Comb 18 sample MC, 1.5mm thick	80ul
MV-20-24-1.5	Comb 24 sample, 1.5mm thick	60ul
MV-20-30-1.5	Comb 30 sample, 1.5mm thick	50ul
MV-20-36MC-1.5	Comb 36 sample MC, 1.5mm thick	40ul
MV-20-48-1.5	Comb 48 sample, 1.5mm thick	30ul
MV-20-1-2	Comb 1 Prep, 1 Marker, 2mm thick	3000ul
MV-20-5-2	Comb 5 sample, 2mm thick	400ul
MV-20-10-2	Comb 10 sample, 2mm thick	200ul
MV-20-18MC-2	Comb 18 sample MC, 2mm thick	100ul
MV-20-24-2	Comb 24 sample, 2mm thick	80ul
MV-20-30-2	Comb 30 sample, 2mm thick	70ul
MV-20-36MC-2	Comb 36 sample MC, 2mm thick	50ul
MV-20-48-2	Comb 48 sample, 2mm thick	40ul

Complete Mini / Mini Wide / Maxi Electro Blot System

MEBM10 / MEBM10W

MEBM20

MV-10CBS / MV-10WCBS

MV-20CBS

Electro Blot Systems are primarily designed for wet electrophoresis of proteins, and offer a combination of increased capacity with economical features. Electro Blot Systems have increased capacity over standard systems. Up to five gel blot cassettes may be utilized at any time for Electro Blot Mini and Maxi, and up to three gel cassettes can be utilized for Electro Blot Mini Wide. This is especially useful in high throughput laboratories. A uniform electric field is provided by a high intensity coiled electrode and ensures uniform transfer across the blot surface. The cassette's open architecture that ensures the maximum blot area allows direct transfer of current. Its rigid construction that ensures contact between the gel and membrane is retained throughout the blot and an even pressure is maintained. These units are compatible with magnetic stirrers to aid heat dispersal and prevent pH drifts in the buffer due to incomplete buffer mixing. Each unit includes a cooling pack to further enhance transfer efficiency by removing excess heat. This also saves buffer for added economy.

The Complete Electrophoresis Systems include both modules for gel electrophoresis, electroblotting and accessories, to provide a complete Mini, Mini Wide or Maxi gel casting, running and electroblotting system. The electroblotting module includes three inter-locking cassettes and six fiber pads. A high intensity current is generated by coiled platinum electrodes. These features, in conjunction with the advanced cooling system allow for rapid electroblotting in as little as one hour.

For MEBM series Features

- Ideal for wet electroblotting of proteins – Western Blotting
- Hinged cassettes for added convenience
- Accommodates gel thickness from 0.25 to 3mm

For MV-CBS series Features

- Versatile: Interchangeable modules for slab gel and Electroblotting using a single universal buffer tank
- Hinged cassettes
- High intensity electrodes
- 3 or 4 blot capacity
- Rapid set-up cooling

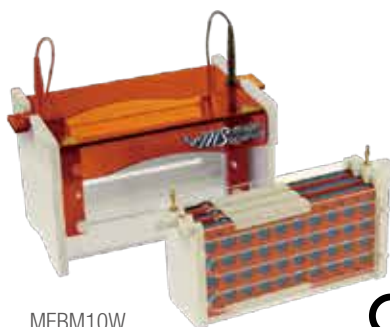
Mini / Mini Wide /Maxi Electro Blot System



MEBM10



MEBM20



MEBM10W

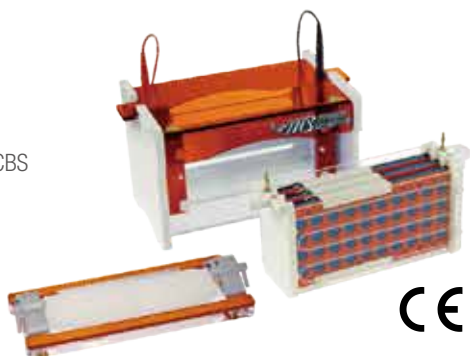


Complete Mini / Mini Wide /Maxi Electro & Blot System

MV-10CBS



MV-10WCBS

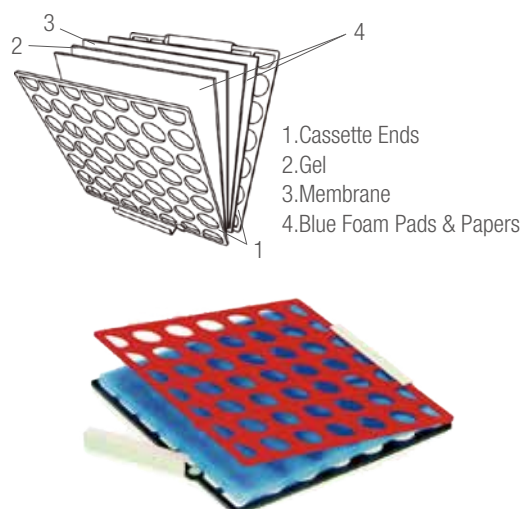


MV-20CBS



Specification

Cat. No.	MEBM10	MEBM10W	MEBM20
Dimension (WxLxH)	7.48"x5.12"x7.48" (190x130x190mm)	10.24"x6.3"x6.3" (260x160x160mm)	9.45"x6.3"x10.24" (240x160x260mm)
Gel dimension (WxL)	3.94"x3.94" (100x100mm)	7.87"x 3.94" (200x100mm)	7.87"x7.87" (200x200mm)
Maximum sample	5 Blots, 100x100mm	3 Blots, 200x100mm	5 Blots, 200x200mm 20 Blots, 100x100mm
Accomodate gel thickness	0.25 - 3mm	0.25 - 3mm	0.25 - 3mm
Buffer volume	600 - 2800ml	1000 - 1500ml	4300 - 6000ml
Ice cooling pack	Yes		
Material	Durable, leak proof environment for complete safety and long life		
Electrical safety	Lid can only be fastened in one way On removal, power is disconnected from buffer chamber		
Cassette type	Hinged cassette		



Double hinged cassettes for added convenience

Ordering Information

Cat. No.	Product Description
MEBM10	Electro Blot Mini, 10x10cm system for 5 cassettes, including 1 x tank and 1 x lid, 5 x cassettes, cooling pack and 12 x fiber pads
MEBM10W	Electro Blot Mini Wide, 20x10cm system for 3 cassettes, including 1 x tank and 1 x lid, 3 x cassettes, cooling pack and 6 x fiber pads
MEBM20	Electro Blot Maxi, 20x20cm system for 5 cassettes, including 1 x tank and 1 x lid, 5 x cassettes, cooling pack and 12 x fiber pads
MSB10C	Blot Mini cassette
MSB10WC	Blot Mini Wide cassette
MSB20C	Blot Maxi cassette
MSB10F	Fiber pads for Blot Mini - pack of 6
MSB10WF	Fiber pads for Blot Mini Wide - pack of 6
MSB20F	Fiber pads for Blot Maxi - pack of 6

MV-10CBS	Complete system for Mini Vertical Electrophoresis & Blotting, comprising:
	1x Mini Vertical unit, including:
	2x2mm thick notched glass plates
	2x2mm thick plain plates with 1mm thick bounded spacers, 1 x dummy plate
MV-10WCBS	2 x combs(1mm thick, 12 samples), 1 x casting base, silicone mat, cooling pack
	1 x Electroblotting module, including:
	1 x Internal electroblotting module
	4 x Compression cassette for gel size up to 100x100mm, 8 x fiber pads
MV-20CBS	Complete system for Mini Wide Vertical Electrophoresis & Blotting, comprising:
	1 x Mini Wide Vertical unit, including:
	2x4mm thick notched glass plates
	2x4mm thick plain plates with 1mm thick bounded spacers, 1 x dummy plate
MV-20CBF	2 x combs (1mm thick, 24 samples), 1 x casting base, silicone mat, cooling pack
	1 x Electroblotting module, including:
	1 x Internal electroblotting module
	3 x Compression cassette for gel size up to 200x100mm, 6 x fiber pads
MV-20CBF	Complete system for Maxi Vertical Electrophoresis & Blotting, comprising:
	1 x Maxi Vertical unit, including:
	2x4mm thick notched glass plates
	2x4mm thick plain plates with 1mm thick bounded spacers, 1 x dummy plate
MV-20CBF	2 x combs(1mm thick, 24 samples), 1 x casting base, silicone mat, cooling pack
	1 x Electroblotting module, including:
	1 x Internal electroblotting module
	3 x Compression cassette for gel size up to 200x200mm, 6 x fiber pads

Semi Dry Mini and Semi Dry Midi

MSD series

Semi Dry Mini offers rapid transfer times for DNA, RNA and protein blotting, typically 15 to 30 minutes. It can be used for all types of blotting, including Western, Southern and Northern blots. It features an uncomplicated buffer and set up procedure and is compatible with gel thickness from 0.25 up to 10mm. The unit is compatible with its respective vertical electrophoresis system. It only requires very low buffer volume, typically only a few milliliters of buffer per transfer. A screw down lid secures the blot sandwich and allows complete control of pressure ensuring even transfer. The electrodes, comprising of a platinum coated anode and stainless steel cathode, will exhibit practically no corrosion and provides many years of trouble free use. Uniform heat dispersion across the blot sandwich ensures stable transfer times and prevents heat induced sample loss or transfer distortions. It also allows viewing of the blot sandwich to ensure correct positioning and transfer is occurring correctly. Electrode plates are fully separated to prevent arcing or damage.



Semi Dry Mini and Semi Dry Midi

Features

- Low buffer consumption
- Rapid transfer time
- Western, Southern and Northern blots
- Screw down lid – Gels from 0.25 up to 10mm thick
- Uniform heat dispersion
- Long life electrodes



MSD series

CE

Specification

Cat. No.	MSD10	MSD20
Dimension (WxLxH)	6.3"x6.3"x2.76" (160x160x70mm)	10.24"x10.24"x2.76" (260x260x70mm)
Gel dimension (WxL)	3.94"x3.94" (100x100mm)	7.87"x7.87" (200x200mm)
Maximum sample	1 Blot, 80x85mm	1 Blot, 160x175mm 2 Blots, 160x85mm 4 Blots, 80x85mm
Buffer volume	5ml	20ml
Accomodate gel thickness	0.25-10mm	
Economic transfer	Yes	
Material	Durable, leak proof environment for complete safety and long life	

Cat. No.	MSD33	MSD50
Dimension (WxLxH)	12.99"x17.72"x2.76" (330x450x70mm)	10.24"x22.05"x2.76" (260x560x70mm)
Gel dimension (WxL)	12.99"x17.72" (330x450mm)	7.87"x19.69" (200x500mm)
Maximum sample	1 Blot, 330x450mm 2 Blots, 260x200mm 5 Blots, 160x175mm 10 Blots, 160x85mm 20 Blots, 80x85mm	1 Blot, 200x500mm 2 Blots, 260x200mm 2 Blots, 160x175mm 6 Blots, 160x85mm 13 Blots, 80x85mm
Buffer volume	75ml	50ml
Accomodate gel thickness	0.25-10mm	
Economic transfer	Yes	
Material	Durable, leak proof environment for complete safety and long life	

Ordering Information

Cat. No.	Product Description
MSD10	Semi Dry Mini, 10x10cm System
MSD20	Semi Dry Midi, 20x20cm System
MSD33	Semi Dry Midi Plus, 33x45cm System
MSD50	Semi Dry Midi Long, 20x50cm System

Comet Assay Tanks

MCOM series

The Comet Assay Tanks are available in four slide formats to study single cell gel electrophoresis (SCGE), a technique made popular by drug toxicology and carcinogenesis studies for the detection and quantitation of DNA damage in cells. Each tank's robust construction from ebony acrylic ensures that cells remain free of exposure to background light and DNA damage during electrophoresis, while a cooled central platform provides a convenient surface for slide preparation and control of slide temperature during the assay.



Features

- For single cell gel electrophoresis
- Minimise exposure to light and reduce background DNA damage
- High efficiency cooling for enhanced resolution samples from PCR and cloning



MCOM series



Specification

Cat. No.	MCOM10	MCOM20
Slide Capacity	10	20
Dimension (WxLxH)	6.69"x13.39"x3.54" (170x340x90mm)	12.2"x13.39"x3.54" (310x340x90mm)
Volume	0.15gal (550ml)	0.26gal (1000ml)
Recommended running conditions	25V / 300mA for 1h	

Cat. No.	MCOM40	MCOM80
Slide Capacity	40	80
Dimension (WxLxH)	12.99"x23.23"x3.54" (330x590x90mm)	13.39"x45.28"x3.54" (340x1150x90mm)
Volume	0.55gal (2100ml)	1.06gal (4000ml)
Recommended running conditions	25V / 300mA for 1h	

Ordering Information

Cat. No.	Product Description
MCOM10	Comet Assay Tank for 10 Slides
MCOM20	Comet Assay Tank for 20 Slides
MCOM40	Comet Assay Tank for 40 Slides
MCOM80	Comet Assay Tank for 80 Slides



Clinical Electrophoresis

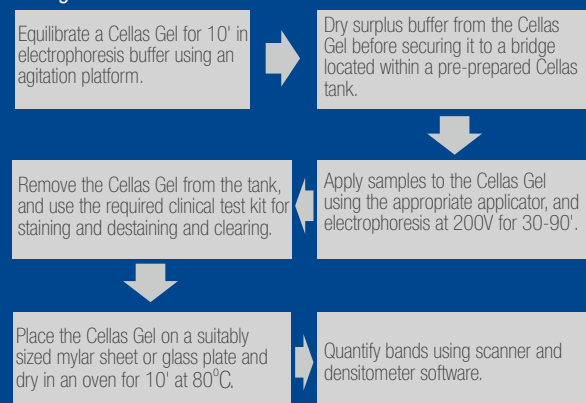
Cellulose Acetate Electrophoresis

ME-CELLAS

Cellulose Acetate Electrophoresis is an important technique in clinical diagnostics. This new range of cellulose acetate products offers a complete system solution for research and clinical cellulose acetate electrophoresis procedures. The Cellulose Acetate System is the ideal tank for both standard and wet cellulose acetate electrophoresis. This unit is designed for both routine and research requirements and is built to our high quality standard. The unit includes an adjustable support which enables easy and fast adjustment for different lengths of cellulose acetate strip.

Cellulose Acetate Gels – a new complete range of wet cellulose acetate gels is available. These have the advantage that they can be used for a wide variety of clinical electrophoresis applications including haemoglobin, serum proteins for monoclonal gammopathies, urine proteins, isoenzymes, lipo and glycoproteins.

Using Cellas Gel



Applicators : Variety of rapid sample applicators are available for a selection of applications:

- Two specimen applicator for semi micro samples on strips 250mm wide.
- Four specimen applicator for semi micro samples on strips 570mm wide.
- Four specimen applicator for Haemoglobin samples on strips 570mm wide.
- Six specimen applicator for samples on strips 570mm wide.

Features

- Compact high resolution systems for Clinical Electrophoresis
- Can accommodate cellulose acetate strips up to 24x20cm
- Complete range of cellulose acetate gels and kits
- Range includes densitometer, scanner and software
- Ideal for Clinical Electrophoresis Tests

Kits: Kits are available for multiple tests on serum proteins, haemoglobin, urine proteins and for immunofixation.

Bridges: Bridges are available in variety of formats for cellulose acetate sheets of dimension and for arched and horizontal Helena types of gels.



ME-CELLAS

Specification

Cat. No.	ME-CELLAS
Strip dimension (WxL)	9.45"x7.87" (240x200mm) max.
Dimension (WxL)	11.81"x11.81" (300x300mm)

Ordering Information

Cat. No.	Product Description
ME-CELLAS	Horizontal unit for Cellulose Acetate Electrophoresis

Accessories

Cat. No.	Product Description
ME-GEL2.514250	2.5x14cm, CellasGEL 250 micron, standard thickness, 100/pack
ME-GEL2.514200	2.5x14cm, CellasGEL 200 micron, standard thickness, 100/pack
ME-GEL2.514190	2.5x14cm, CellasGEL 190 micron, high resolution, 100/pack
ME-GEL5.714500	5.7x14cm, CellasGEL 500 micron, high volume, 25/pack
ME-GEL5.714250	5.7x14cm, CellasGEL 250 micron, standard thickness, 25/pack
ME-GEL5.714200	5.7x14cm, CellasGEL 200 micron, standard thickness, 25/pack
ME-GEL5.714190	5.7x14cm, CellasGEL 190 micron, high resolution, 25/pack

ME-APPS22	Applicator, 1x2-specimen semi-micro, for CellasGEL strip size 2.5x14cm
ME-APPS4SP	Applicator Semi-micro 4 for 0.9ul volume applied/ 9mm – First type
ME-APPS4	Applicator Semi-micro 4 for 1.2ul volume applied/ 9mm – First type
ME-APPS6	Applicator Semi-micro 6 for 0.7ul volume applied/ 7mm – First type
ME-APPM8	Applicator Micro 8 for CellasGEL
ME-APPM8M	Applicator Micro 8 for CellasGEL/Myl
ME-APPS18	Applicator Semi-micro 18 for CellasGEL sheets 18.3x14cm and 18.3x17cm
ME-APPS18M	Applicator Semi-micro 18 for CellasGEL/Myl sheets 19.85 x 7.6cm

ME-BDG8.5L	CSLBDG8.5L Bridge 8.5cm for CellasGEL sheets 18.3x14cm
ME-BDG11L	CSLBDG11L Bridge 11cm for CellasGEL sheets 17x17cm
ME-BDG8.5S	CSLBDG8.5S Bridge 8.5cm (standard size for CellasGEL kits) for CellasGEL strips 5.7x14cm or 2.5x14cm
ME-BDG14RS	CSLBDG14RS Bridge 14cm for CellasGEL RS Wedge 5x18.5cm
ME-BDG11S	CSLBDG11S Bridge 11cm for CellasGEL strips 5.7x17cm
ME-BDGA	CSLBDGA Bridge for in arched position electrophoresis
ME-BDGH	CSLBDGH Bridge for horizontal position electrophoresis Helena type
ME-DENS	TurboScan software densitometer (excludes computer and scanner)
ME-SCAN	Flatbed scanner for TurboScan software

Dot and Slot Blotters

MDHM series

MSHM series

Four different sample number of hybridization manifolds are available: two types of dot blotters and two types of slot blotters. Typical applications include clone screening with DNA / RNA probes in Southern / Northern blots and immunological screening with antibodies in Western blots. Those units incorporate precision lapped surfaces to ensure uniform blotting membrane contact and a leak-proof gasket. These prevent lateral transfer of samples and smudging by ensuring that a complete vacuum is formed. Six thumbscrews ensure even and tight sealing for fastening samples. Dot blotters are available in 48 and 96 well versions and slot blotters in 24 and 48 well.



Easy assembly

Features

- Low cost
- Simple construction
- Easy assembly
- Four sample configuration
- Alpha-numeric sample identification



MDHM-48



MDHM-96



Specification

Cat. No.	MDHM-48	MDHM-96
Dimension (WxLxH)	2.36"x3.74"x3.94" (60x95x100mm)	2.36"x4.13"x5.51" (60x105x140mm)
Membrane size required	4.76"x1.73" (121x44mm)	4.33"x2.91" (110x74mm)
Configuration	3x16	8x12
Size of well	6mm diameter, 12mm deep	
Vacuum required	600mg Hg 0.8 BAR with cold trap	

Cat. No.	MSHM-24	MSHM-48
Dimension (WxLxH)	2.36"x2.91"x3.27" (60x74x83mm)	2.36"x3.74"x3.94" (60x95x100mm)
Membrane size required	4.76"x1.73" (121x44mm)	4.76"x1.73" (121x44mm)
Configuration	2x12	3x16
Size of well	6x0.5mm, 12mm deep	
Vacuum required	600mg Hg 0.8 BAR with cold trap	

Ordering Information

Cat. No.	Product Description
MDHM-48	48-Well Dot Blot
MDHM-96	96-Well Dot Blot
MSHM-24	24-Well Slot Blot
MSHM-48	48-Well Slot Blot



Dot Blotter

Slot Blotter

Denaturing Gradient Electrophoresis

MV20-WAVE-DGGE

The MV-20-WAVE-DGGE is a complete system for DNA mutation analysis. It is fully equipped with temperature control unit, stirrer, and gradient mixer and casting accessories to perform specific mutation analysis applications. A powerful microprocessor controlled PID temperature control unit enables various mutation detection techniques to be undertaken between ambient temperature and 70°C, while the simple four screw design of the WAVE insert accelerates set up of denaturing PAGE gels. The flexibility provided by the modular design of the MV-20-WAVE-DGGE and its wide range of accessories enables laboratories to switch quickly and easily between different mutation detection techniques, thereby maximizing throughput and screening efficiency. A maximum 96-sample throughput allows detection of as many mutations within a couple hours, alleviating many of the bottlenecks associated with screening for DNA mutations.



MV20-WAVE-DGGE

Features

- Maximum 96-sample throughput
- Large format – 20x20cm glass plates
- Use with 100ml gradient mixer to make two 1mm parallel denaturing gradient gels
- Compatible with microplates and thermal cycler blocks
- Ideal for detection of single base changes and polymorphisms in genomic cloned and amplified DNA fragments

Specification

Cat. No.	MV20-WAVE-DGGE
WAVE electrophoresis insert and tank	
Max. number of gels	2 per run
Plate dimension (WxH)	7.87"x7.87" (200x200mm)
Active gel dimension (WxH)	6.3"x6.89" (160x175mm)
Thicknesses	0.75, 1, 1.5 and 2mm
Max. sample capacity	96 samples; 48 per gel
Standard combs	2x1mm 24-sample
Available combs	1, 5, 10, 18 MC, 24, 36 MC, 48; as per MV20WAVE and Maxi units
Max. buffer volume	2.25gal (8.5L)
Dimension (WxLxH)	15.94"x6.69"x1.73" (405x170x440mm)
Weight	Approx. 17.6lb (8kg)
Temperature control unit	
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
Safety	Fluid-level float switch; isolated; IEC 1010/CE
Stored temperature values	4
Heater power at 230V/110VAC	1.4/1.3kW
Electrical power at 230V/100VAC	1.5/1.4kW (50-60Hz)
Recommended power supply MP-500V	
Rated Voltage	500V
Current	800mA
Power	300 W
Gradient mixer	
Total volume	100ml
Volume of reservoir & mixing chambers	50ml
Internal diameter of outlet port	2mm



Ordering Information

Cat. No.	Product Description
MV20-WAVE-DGGE-110	Complete denaturing gradient gel electrophoresis system, 20x20cm; includes: temperature control unit, cam casting base, glass plates with 1mm bonded spacers, 2x24-sample combs and gradient mixer, 110V
MV20-WAVE-DGGE-220	Complete denaturing gradient gel electrophoresis system, 20x20cm; includes: temperature control unit, cam casting base, glass plates with 1mm bonded spacers, 2x24-sample combs and gradient mixer, 220V
MV20-WAVE-DGGETC-110	MV20-WAVE-DGGE-110 temperature control unit
MV20-WAVE-DGGETC-220	MV20-WAVE-DGGE-220 temperature control unit
MGM-100	Gradient mixer, 100ml

Flatbed IEF System

MIEF

The Flatbed IEF System has been designed to perform all flat bed IEF techniques, including wick-based electrophoresis with horizontal and hand-cast IEF gels, and focusing with IPG strips. The unit includes a large cooling platform which offers increased strip capacity and active gel area. Uniform cooling of the platform is achieved using a large ceramic plate that may be connected to any standard chiller via quick-fit connectors for enhanced gel or strip cooling. An optional rehydration tray is also available for overnight rehydration of up to twelve IPG strips before use.



Specification

Cat. No.	MIEF
Max. strip length	9.45" (260mm)
Max. gel dimension	10.24"x10.24" (260x260mm)
Dimension	(WxLxH) 21.65"x13.78"x3.94" (550x350x100mm)

Ordering Information

Cat. No.	Product Description
MIEF	Flatbed IEF system for IEF strips and gels
WCC-100	Winpact chiller for electrophoresis systems

Features

- For IPG strip and IEF gel applications
- Large cooling platform area
- Pick and place easy to position electrodes
- Grid for accurate electrode alignment
- Rehydration tray also available



WCC-100

Gradient Formers

MGM series

Five different sizes of Gradient Former, 15, 25, 50, 100 and 500ml are available. The smaller sizes, 15ml and 25ml are ideal for the preparation of centrifugation gradient by using sucrose or cesium chloride solutions. The larger sizes, 50ml, 100ml, and 500ml are mainly used for the preparation of linear polyacrylamide gel gradients. The gradient formers are made from a single acrylic block, except for the 500ml gradient former, which is made from acrylic tubes. They all consist of two chambers, a reservoir and a mixing chamber, with an interconnecting valve. A second valve regulates the output flow from the mixing chamber, except MGM-500. A magnetic stirring bar is placed in the mixing chamber to maintain a constant gradient. All of the products have a flat base to be placed on a magnetic stirrer. They also have a support rod, which can be used to fix the gradient formers to a retort stand for extra stability.

Features

- Low cost
- Simple construction
- Easy assembly
- Well gradient performance

Cool Cube

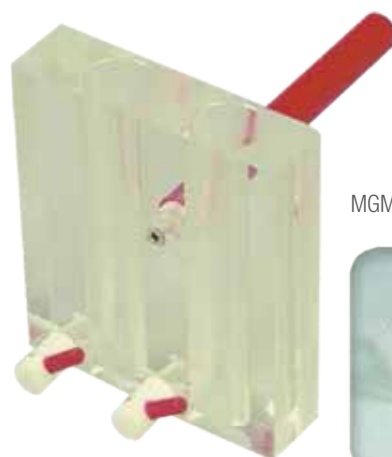
MS-COOLCUBE

The Cool Cube is designed to help you store your precious samples safely on lab bench without worrying about the degradation caused by temperature increment. The Cool Cube maintains temperature at approximately 0 °C for up to four hours. Simply place the Cool Cube in a freezer overnight and it will be ready to use.

One side of the Cool Cube could be used for a convenient PCR workstation for 12 standard 1.5/2.0ml microtubes with one 96 well PCR plate, or with 12x0.2ml strips or 96x0.2ml tubes. The other side of the cube may be used to hold up to 36 standard 1.5/2.0ml microtubes.

Features

- Maintains 0°C for up to 4 hours
- Holds both microtubes and a PCR plate
- Can be used as a PCR workstation



MGM series



Simple construction

Ordering Information

Cat. No.	Product Description
MGM-15	For 15ml gradient former
MGM-25	For 25ml gradient former
MGM-50	For 50ml gradient former
MGM-100	For 100ml gradient former
MGM-500	For 500ml gradient former



MS-COOLCUBE



Specification

Cat. No.	MS-COOLCUBE
Temperature	4°C for up to 4 hours
Capacity	36x1.5ml
	96x0.2ml
	12x0.2ml PCR strips
	1x96 well PCR plate
Dimension	(WxLxH) 5.59"x5.59"x2.5" (142x142x63.5mm)
Weight	1.98lb (900g)
Material	Durastar Polymer

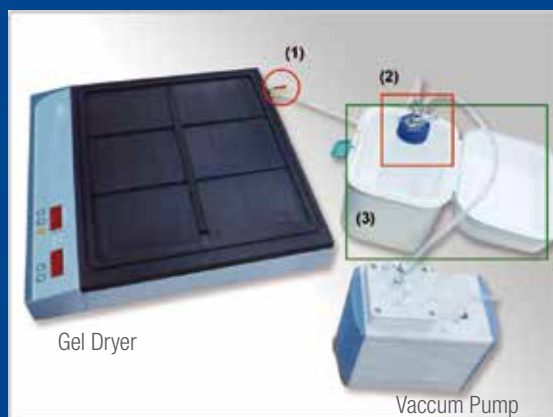
Ordering Information

Cat. No.	Product Description
MS-COOLCUBE	Coolcube storage rack

Midi Gel Dryer

MG series

The microprocessor of the Midi Gel Dryer controls temperature from ambient +5°C to 90°C with a timer from 0 to 999 minutes to heat gels from the base plate while connected to a vacuum pump to remove the moisture and dry gels homogeneously. The surrounding groove design and sealing silicon rubber mask ensure optimal sealing when connecting to a vacuum pump.



1. Remember to turn the red valve on when start sucking from inlet port of vacuum pump.
2. Remember to prepare a vessel/bottle which has 2 ports for outlet and inlet to gather the fluid.
3. A container with some ice will help cooling down the temperature in the bottle. In addition, it also helps reducing the chemical odor.

*All images are for reference only, actual products might differ from the pictures above.

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

*Technical specification subject to change without notice.



2 digital LED displays

Features

- Drying area (LxW): 8.27"x12.20" (210x310mm) or 13.78"x17.72" (350x450mm)
- Microprocessor for temperature control
- User temperature calibration
- Timer with alarm
- 2 digital LED displays



MG-2131



MG-3545



Specification

Product name	MG-2131	MG-3545
Drying area (WxL)	12.20"x8.27" (310x210mm)	17.72"x13.78" (450x350mm)
Display	Two of 4 digital LED	
Control	Digital Microprocessor Controller	
Temperature control range	Ambient to 90°C	
Temperature increment	0.1°C	
Temperature uniformity at 37°C	within 0.2°C	
Temperature calibration	Yes	
Timer	9999 (min)	
Operating temperature	Ambient to 40°C	
Weight	Approx. 19.8lb (9.0kg)	Approx. 33.0lb (15.0kg)

Ordering Information

Cat. No.	Product Description
MG-2131-110/220	Midi 21x31cm Gel Dryer
MG-3545-110/220	Midi 35x45cm Gel Dryer

Accessories

Cat. No.	Product Description
MG-2131-MAT	Polythylene filter mat 21x31cm
MG-3545-MAT	Polythylene filter mat 35x45cm
MG-2131-SR	Silicon Rubber 27x37cm
MG-3545-SR	Silicon Rubber 41x53cm



Amplification/PCR

Thermal Cycler, PCR Workstation

Major Science provides a reliable and promising PCR/amplification instrument line to suit your everyday polymerase chain reaction needs. From sanitary PCR station that protects the working area from cross-contamination to state-of-art high performance Thermal Cycler, this product range is perfect to use in any lab.

Amplification/PCR

Thermal Cycler

60-61

- ❖ Major Cycler

PCR Workstation

62-63

- ❖ UV Sterilization Cabinet
- ❖ Mini UV Sterilization Cabinet



*All images are for reference only, actual products might differ from the images.

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

*Technical specification subject to change without notice.

Major Cyclor

CYCLER-25

Major Cyclor is an automated instrument designed for application in hot start thermal cycling reactions with additional reverse transcription (RT) program function, it is simple and convenient to run one-step RT by combining the RT program with a stored amplification reaction. Another feature of Major Cyclor is the flexible program editing, which allows researchers to set up an amplification program containing different temperature ramping conditions within individual loops. Major Cyclor also offers the flexibility to create an advanced amplification program which could increase/decrease temperatures and hold time for an assigned step from cycle to cycle. The small size and competitive pricing make it suitable for a personal instrument ownership.



25(5x5)x0.2ml tube

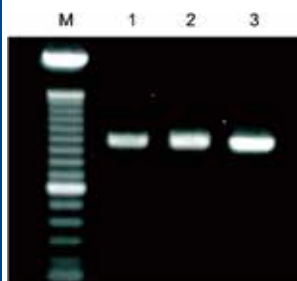
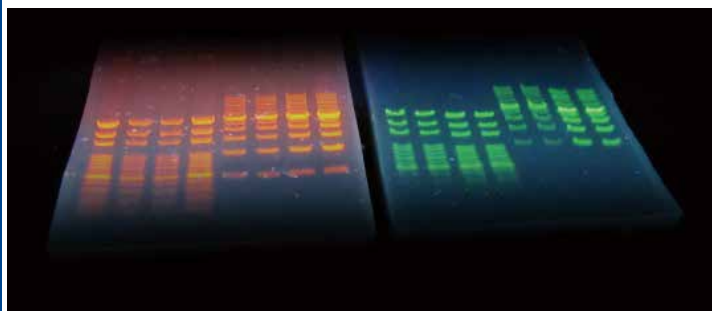
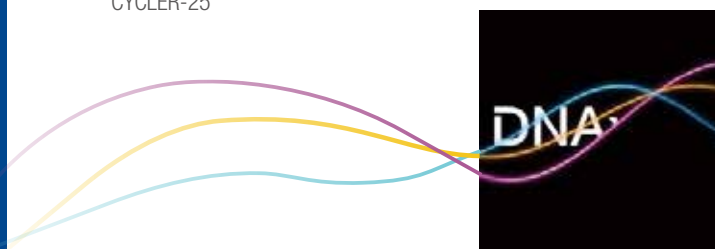
Features

- Microprocessor control with digital performance
- Wide temperature control range and great temperature controlling performance
- LCD display
- Self pressure adjusting heating lid
- User friendly and powerful program performance
- RT program
- Link up to 5 loops for one program
- Up to 9 steps for each loop
- Up to 99 cycles for each loop



CYCLER-25

CE



Reverse Transcription and amplification of 900bp Japanese Encephalitis Virus (JEV) envelope protein fragment from JEV RNA using Major Cyclor RT and amplification program

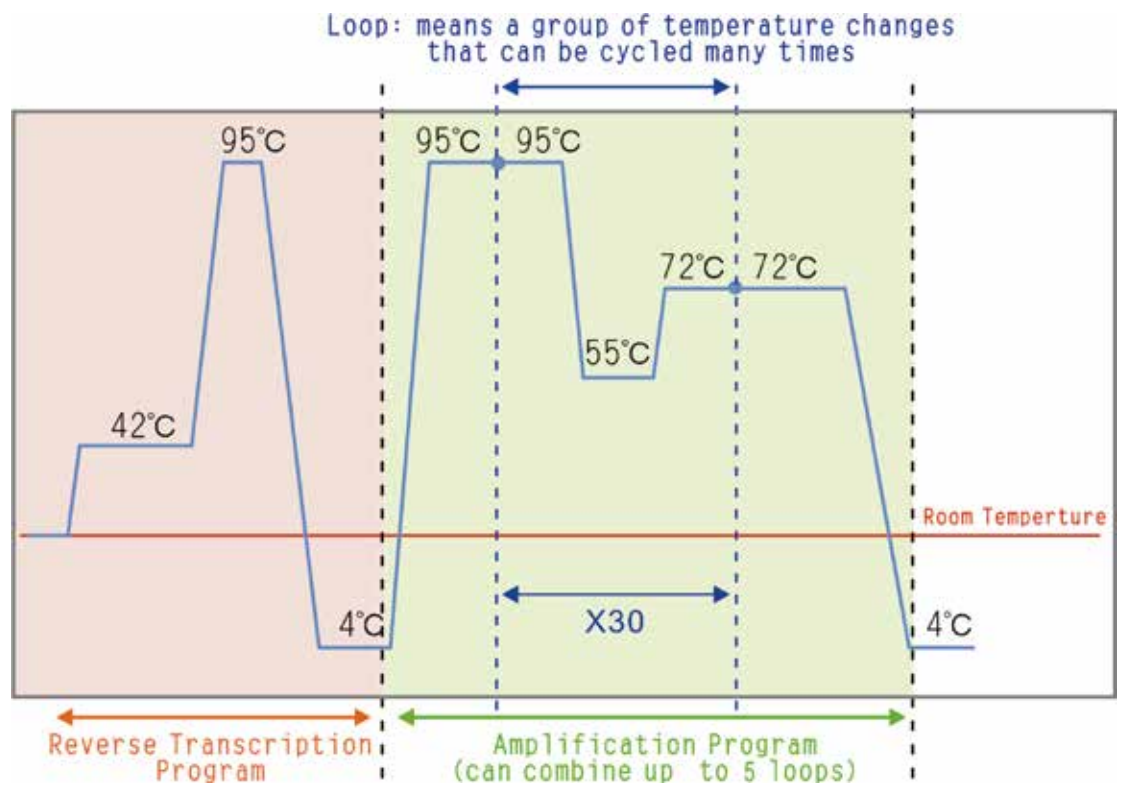
M. DNA marker
1. 0.1µg RNA template
2. 0.5µg RNA template
3. 1.0µg RNA template

Specifications

Cat. No.	CYCLER-25
Sample capacity	25(5x5)x0.2ml tube
Temperature control range	4°C to 110°C
Lid temperature control range	ambient + 5°C to 110°C
Block homogeneity	20°C to 72°C $\leq \pm 0.3^\circ\text{C}$; 95°C: $\leq \pm 0.4^\circ\text{C}$
Control accuracy	$\pm 0.2^\circ\text{C}$
Heating rate	approx. $3^\circ\text{C} / \text{s}$
Cooling rate	approx. $2^\circ\text{C} / \text{s}$
Display	2.6" LCD
Program	Reverse transcription program
	Link program: multi-loop available; up to 5
	Step per Loop: up to 9
	Cycle number: up to 99
	Program storage: up to 100
	Increment and decrement temperature per step on each cycle
Increment and decrement time per step on each cycle	Yes
Rated voltage	110V / 220V selectable
Dimension (WxLxH)	(WxLxH) 7.87"x12.62"x7.48" (200x320.5x190mm)
Weight	Approx. 18.9lb (8.6kg)

Ordering Information

Cat. No.	Product Description
CYCLER-25	Major Cycler, 25 wells



UV Sterilization Cabinet

MS-UVCAB

For MS-UVCAB

The UV Sterilization Cabinet provide a convenient area for setting up PCR reactions in a nucleic acid free environment thus preventing PCR reaction contamination. Acting effectively as a low cost alternative to a clean room, the powerful UV light on the cabinets emits UV light to denature any nucleic acids in 5 to 30 minutes, making them inactive for amplification. The cabinet incorporates safety features to prevent user exposure to UV light.

The UV light have timer control and also provided with safety switches on the cabinets doors which turn off the UV light when opened.

The cabinets also act as an efficient shield of beta radioactive emissions and can therefore be safely used with isotopes such as ³²P.

White light within the system provides excellent visibility when working within the cabinets.

Features

- Inactivates nucleic acids in 5 to 30 minutes
- Doors fitted with safety switches
- Complete with four powerful, timer controlled UV bulbs
- Efficient decontamination of the complete work surface
- Suitable for work with ³²P



MS-UVCAB



Specification

Cat. No.	MS-UVCAB
UV light	4x15W
White light	15W
Dimension	(WxLxH) 22.05"x 6.54"x30.31" (560x420x770mm)
Weight	41.9lb (19Kg)
Cabinet material	Acrylic

Ordering Information

Cat. No.	Product Description
MS-UVCAB	UV Sterilization Cabinet with timer, four UV light and white light, no tray
MS-TL4	Liners - 68x54cm, PK/25 (FOR CABINET)
MS-TW4	General Purpose Tray (white) - 68x54cm
MS-TY4	Radiation Hazard Tray (yellow) - 68x54cm

Mini UV Sterilization Cabinet

MS-UVCABMINI

For MS-UVCABMINI

The Mini UV Sterilization Cabinet has all the benefits from the UV Sterilization Cabinet but with smaller in size which is the perfect solution for laboratories constrained by space and budget. A reduced height and footprint allows the Mini UV Cabinet to fit snugly and conveniently to any small areas within the lab.



MS-UVCABMINI

Specification

Cat. No.	MS-UVCABMINI
UV light	4x15W
White light	15W
Dimension	(WxLxH) 22.05"x13.78"x20.08" (560x350x510mm)
Weight	26.46lb (12Kg)
Cabinet material	Acrylic

Ordering Information

Cat. No.	Product Description
MS-UVCABMINI	Mini UV Sterilization Cabinet with timer, UV light and white light, no tray
MS-TL4	Liners - 68x54cm, PK/25 (FOR CABINET)
MS-TW4	General Purpose Tray (white) - 68x54cm
MS-TY4	Radiation Hazard Tray (yellow) - 68x54cm



MS-TW4



Timer for convenient operation



Easy side access

Features

- Inactivates nucleic acids in 5 to 30 minutes
- Doors fitted with safety switches
- Complete with four powerful, timer controlled UV bulbs
- Efficient decontamination of the complete work surface
- Suitable for work with 32P



Gel Documentation System

Major Science offers a wide range of Gel Documentation System specifically designed to fit researchers' specifications and budgets. Gel Documentation System are offered for a wide range of applications depending on the system and camera configurations. This product line also includes UV Transilluminators and UV / Blue light transilluminators for all your imaging needs. All products feature user-friendly operation, compact sizing and outstanding functions.

More blue light technology instruments are introduced to the category of blue light, Page 82-91

Gel Documentation System

Imaging System

66-75

- ❖ SmartView Pro Imager
- ❖ SmartView Pro Imager, CCD
- ❖ SmartView Pro Imager, CMOS
- ❖ SmartView Simple Imager System
- ❖ Compact Digimage System
- ❖ Digimage System

Transilluminator

76-79

- ❖ SmartView Transilluminator
- ❖ UV Transilluminator



*All images are for reference only, actual products might differ from the images.

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

*Technical specification subject to change without notice.

SmartView Pro Imager

UVCI-2300 / UVCI-2400

MS UVCI-2300/2400, the truly standalone Gel Imaging System, delivers incredible image and sharpness with power of the exceptional close-up monochrome 2.0 mega-pixel CCD camera, and get you ready for beautifully discriminable DNA/Protein gel images in the spaciouly intuitive 10.4" interface with color touch-screen. Our innovative systems are expandable with white and blue light plates coupled with versatility of camera Filters, no matter it's an EtBr or EtBr-free operations, simply tab to view. Many post-imaging features like drawer-type platform and UV Protection Shield are added to your convenience for gel excision.



Control Interface

Features

- 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 (UVCI-2300 only)
- Optional trans white light and blue light plates (UVCI-2300 only)
- Exclusively designed for EtBr-free operation gel doc system (UVCI-2400 only)
- Optional trans white light plates

2.0 MP CCD Camera



UVCI-2300 / UVCI-2400

FC CE



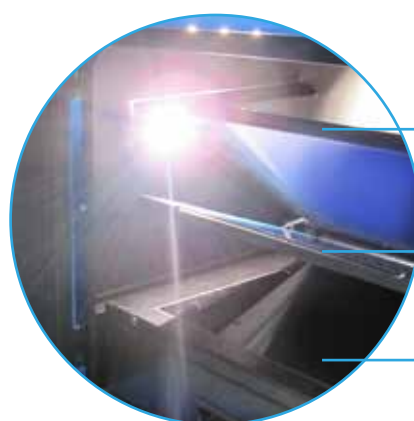
System setup

Default setting



UV light protection warning

Batch file management



White Light Plate
(Flip type)

Blue Light Plate
(Flip type)

UV Transilluminator
(Drawer type)

Specifications

Model	SmartView Pro 2300	SmartView Pro 2400
Cat. No.	UVCI-2300	UVCI-2400
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)	Optical EtBr Filter / Optical SYBR Green Filter / Orange Amber Filter *Ordered Separately	Orange Amber Filter *Ordered Separately
Image storage	Built-in 14GB Memory (3000 tiff images storage) and USB flash	
Cabinet	Pull out, sliding transilluminator	
Field of view(WxL)	10.24"x8.26" (260x210mm)	
Dimension (WxLxH)	16.1"x15.9"x36" (410x405x915mm)	
Weight	Approx. 62.8lbs. (28.5kg)	Approx. 56lbs. (25.4kg)
Display	10.4" color touch screen, 800x600	
Viewing window	Built-in UV viewing window	Built-in blue viewing window
Window Filter	Amber Filter embedded in viewing window (580nm)	
Light source	Built-in drawer type UV Transilluminator 312(302)nm	Built-in drawer type blue transilluminator 470nm
Optional accessory	Epi white light	
	White Light Plate (power built-in)	
	Blue light plate (power built-in) 470nm	N/A
Saved image	Max. 16bit	
Grayscale	12bit, 0-4095 gray levels	
Safety	CE, FCC	
Rated voltage	100-240V~, 50/60Hz	



UVCI-2300-EB



UVCI-2300-SG



UVCI-2300-F4

Ordering Information

Cat. No.	Product Description
UVCI-2300	SmartView Pro 2300 Imager System, UV light version
UVCI-2400	SmartView Pro 2400 Imager System, Blue light version

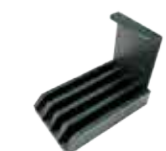
* All filters have to be ordered separately.

Accessories

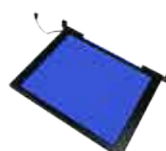
Cat. No.	Product Description
UVCI-2300-EB	SmartView EtBr Filter, 610nm (for UV)
UVCI-2300-SG	SmartView SYBR Green Filter, 520nm (for UV)
UVCI-2300-F4	SmartView Amber Filter, 580nm (for blue light)
UVCI-2313	SmartView Pro UV Protection Shield, for 2300 series
UVCI-2314	SmartView Pro Lens Filter Stand, can hold up to 4 lens filters, for 2300 & 2400 series
UVCI-2300-BL	Blue Light Plate for SmartView Pro 2300 series
UVCI-2300-WL	White Light Plate 21x26cm for SmartView Pro 2300 & 2400 series
MJC-8-STYLUS-00000	Stylus Pen



UVCI-2313



UVCI-2314



UVCI-2300-BL



UVCI-2300-WL



Viewing via window



Viewing via screen



Viewing window



MJC-8-STYLUS-00000



Blue Light Plate (UVCI-2300)



White Light Plate

SmartView Pro Imager, CCD

UVCI-2100

The SmartView Pro 2100 is simply the upgraded version of our 1000 series. The SmartView Pro 2100 offers all same great features except the 2.0 megapixel CCD camera to provide image with sharper sensitivity, and less exposure time. All the accessories are shared between 1000 series and 2000 so it's easy and simple to use. All great features such as pre-focused lens, safety UV door and 1D analysis software are all included as standard. Enjoy the most compact CCD imaging system for all of your laboratory work.



White Light Plate for protein analysis



Epi-blue light for optional light source

Features

- High resolution CCD camera
- PC integration with real time image
- Capture/Analysis software included
- Pull out UV Transilluminator for easy gel cutting
- Easy installation, ready to use right out of the box
- Pre-focused lens allow one touch image capture
- Variety of optional accessories available
- UV safety cut-off switch when door is open
- CE and FCC certification

2.0 MP CCD Camera



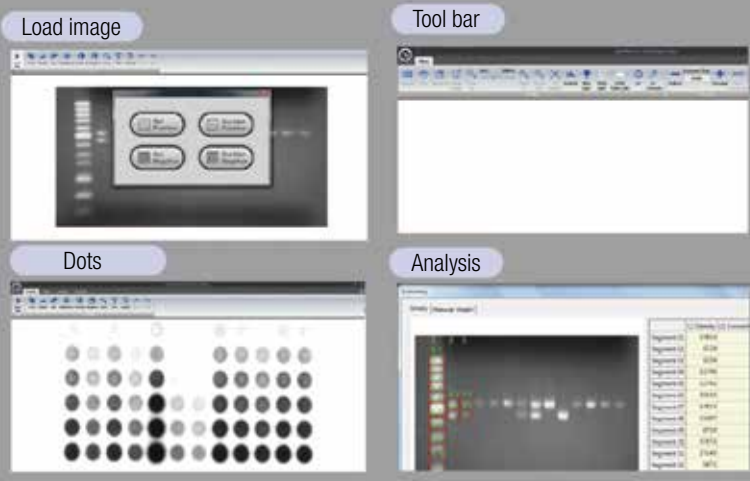
UVCI-2100



FC CE

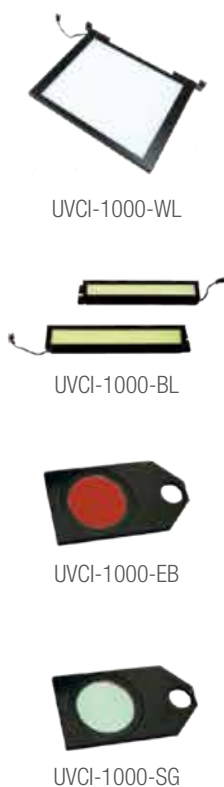
MS 1D Analysis Software(Cat. No. MBE-IMG-SW)

PC Version



PC is not included

Specifications



Model	SmartView Pro 2100
Cat. No.	UVCI-2100
UV light	Built-in drawer type UV Transilluminator 312(302)nm
Camera	1/1.8" interline UXGA monochrome progressive 2.0MP CCD
Pixels size	4.4 μ m x 4.4 μ m
Lens (camera)	6mm, F1.2
Camera video output	12-bit
Filter (camera)	Optical EtBr Filter / Optical SYBR Green Filter / Yellow Amber Filter / Orange Amber Filter *Ordered separately
Image storage	PC
Software support	Window 10 / 8 / 7 (64bit & 32bit) / XP / Vista
Cabinet	Pull out, sliding transilluminator
Field of view (WxL)	10.24"x8.26" (260x210mm)
Dimension (WxLxH)	16.1"x15.9"x22.4" (410x405x570mm)
Weight	Approx. 54.0lbs. (24.5kg)
Display	LED indicator light
Viewing window	Built-in UV viewing window
Window Filter	Built-in Viewing Window Amber Filter 560nm
Light	White light (standard)
Optional accessory	White Light Plate (power built-in)
	Blue light (power built-in) 470nm
Safety	CE, FCC
PC connection	USB port
Wi-Fi format	N / A
1 D analysis software	Cat. No. MBE-IMG-SW included
Saved image	Max. 16bit

* iPad and PC not included

Ordering Information

Cat. No.	Product Description
UVCI-2100	SmartView Pro 2100 Imager System, standard version
UVCI-2101	SmartView Pro 2100 Imager System, standard version, high UV performance

* All filters have to be ordered separately.

Accessories

Cat. No.	Product Description
UVCI-1000-WL	White Light Plate for SmartView Pro Imager System, for 1000 & 2000 series
UVCI-1000-BL	Blue Light Module for SmartView Pro Imager System, for 1000 & 2000 series
UVCI-1000-EB	Optical EtBr Filter 620nm for SmartView Pro & Simple Imager System
UVCI-1000-SG	Optical SYBR Green Filter 520nm for SmartView Pro & Simple Imager System
UVCI-1000-F1	Viewing Window Amber Filter 560nm for SmartView Pro
MBE-IMG-F3	SmartView Amber Filter 560nm
MBE-IMG-F4	SmartView Amber Filter 580nm
UVCI-1001	Blue Light Module Package A, includes Blue Light Module and SmartView 560nm Amber Filter
UVCI-1002	Blue Light Module Package B, includes Blue Light Module and SmartView 580nm Amber Filter
UVCI-1003	SmartView Pro UV Protection Shield, for 1000 & 2000 series
UVCI-1004	SmartView Pro Lens Filter stand, for 1000 & 2000 series
MBE-G-Y1	Amber Filter Glasses (optional)



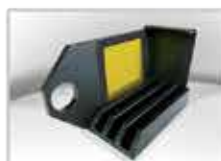
Easy installed by
magnetic design



UV Protection
Shield



Easily gel
cutting
design with UV



Up to 4 Filters



Easily placed
by magnet
near camera



Viewing
window

SmartView Pro Imager, CMOS

UVCI-1000 series

The SmartView Pro Imager System provides two different models for you to choose. The SmartView Pro 1100 provides the basic feature and standard operation whereas the SmartView Pro 1200 provides the Wi-Fi feature compatibility with tablets(iPad, OS, Android, Windows).



UVCI-1100

UVCI-1200



UVCI-1200 LCD touch screen

Features

- High resolution 5.0 megapixel monochrome camera
- PC integration with real time Image
- Capture/Analysis software included
- Pull out UV Transilluminator for easy gel cutting
- Easy installation, ready to use right out of the box
- Pre-focused lens allow one touch image capture
- Variety of optional accessories available
- UV safety cut-off switch when door is open
- Wireless module for cable free environment (Wi-Fi version only)
- CE and FCC certification

5.0 MP Monochrome Camera



UVCI-1200



Wi-Fi connection
for wire-free lab
environment

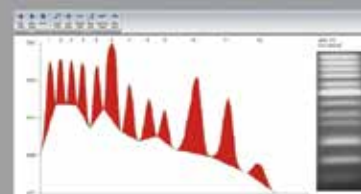
MS 1D Analysis Software(Cat. No. MBE-IMG-SW)

PC Version

Load image



Quantify



Define region



Analysis



iPad Version



PC is not included



UVCI-1000-WL



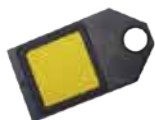
UVCI-1000-BL



UVCI-1000-EB



UVCI-1000-SG



MBE-IMG-F3



MBE-IMG-F4



UVCI-1003



UVCI-1004



MBE-G-Y1

Specifications

Model	SmartView Pro 1100 (Standard version)	SmartView Pro 1200 (Wi-Fi version)
Cat. No.	UVCI-1100	UVCI-1200
UV light	312(302)nm	
Camera	(2592x1944) , 10bit scientific grade sensor 5.0MP	
Pixels size	2.2 μ m x 2.2 μ m	
Lens (camera)	6mm, F1.2	
Camera video output	12-bit	
Filter (camera)	Optical EtBr Filter / Optical SYBR Green Filter / Yellow Amber Filter / Orange Amber Filter *Ordered separately	
Image storage	PC	Portable device (iOS or android) and PC
Connection	USB to PC	Wi-Fi to portable device and PC
Software support	Window 10 / 8 / 7 (64 & 32bit) / XP / Vista	Windows 10 / 8 / 7/(64 & 32bit)/XP/Vista, Tablets
Cabinet	Pull out, sliding transilluminator	
Field of view (WxL)	10.24"x8.26" (260x210mm)	
Dimension (WxLxH)	16.1"x15.9"x22.4" (410x405x570mm)	
Weight	Approx. 54.0lbs. (24.5kg)	
Display	LED	LCD
Viewing window	For gel observation	
Window Filter	Amber Filter (standard) 560nm	
Light	White light (standard)	
Optional accessory	White Light Plate (power built-in)	
	Blue light (power built-in) 470nm	
Safety	CE, FCC	
USB port	for PC connection	For maintenance purpose only
1 D analysis software	Cat. No. MBE-IMG-SW included	

* iPad and PC not included

Ordering Information

Cat. No.	Product Description
UVCI-1100	SmartView Pro 1100 Imager System, standard version
UVCI-1200	SmartView Pro 1200 Imager System, wifi version
UVCI-1101	SmartView Pro 1100 Imager System, standard version, high UV performance
UVCI-1201	SmartView Pro 1200 Imager System, wifi version, high UV performance

* All filters have to be ordered separately.

Accessories

Cat. No.	Product Description
UVCI-1000-WL	White Light Plate for SmartView Pro Imager System, for 1000 & 2000 series
UVCI-1000-BL	Blue Light Module for SmartView Pro Imager System, for 1000 & 2000 series
UVCI-1000-EB	Optical EtBr Filter 620nm for SmartView Pro & Simple Imager System
UVCI-1000-SG	Optical SYBR Green Filter 520nm for SmartView Pro & Simple Imager System
MBE-IMG-F3	SmartView Amber Filter 560nm
MBE-IMG-F4	SmartView Amber Filter 580nm
UVCI-1003	SmartView Pro UV Protection Shield, for 1000 & 2000 series
UVCI-1004	SmartView Pro Lens Filter Stand, for 1000 & 2000 series
MBE-G-Y1	Amber Filter Viewing Glasses (optional)



Sliding
transilluminator



Easy installed
by magnetic
design



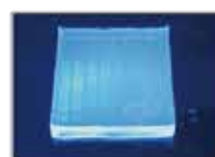
Easily gel
cutting
design
with UV



Up to 4 Filters



Easily placed
by magnetic
near camera



Optional
blue light
device

SmartView Simple Imager System

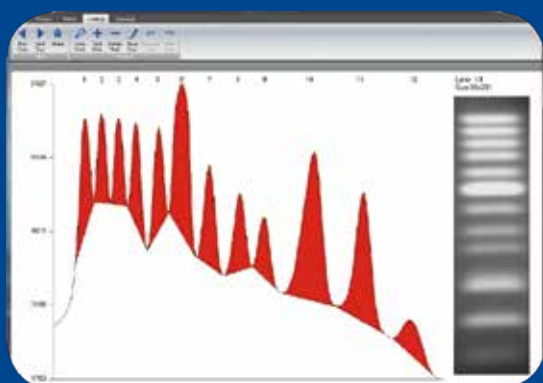
MUV-IMG series

Major Science offers SmartView Simple Imager System for your UV or blue light Transilluminator. This unit is designed for extremely light in weight and compact in size.

For any lab with limited budget and lab space, the SmartView Simple Imager System is definitely your top choice of selection. It is compatible with most of the transilluminators on the market. (for any maximum viewing size less than 260x210mm)

The system comes with two models for your selection.

Digital camera model gives your mobility and Scientific camera gives you Image capture and analysis capability right from your computer.



Gel image analysis software included for SmartView Simple (MUV-IMG-CM)

Features

- Extremely light weight and compact in size
- 12.1 megapixel digital camera and 5.0 megapixel scientific grade camera for selection
- PC required for scientific grade camera model (image capture software included)
- Optical amber Filter special designed for blue light viewing (560nm or 580nm)
- Optical Filters available upon ordering (for EtBr or SYBR)
- Gel capture/Analysis software included FREE of charge (when purchasing with 320 Imager System)



Wi-Fi function

MUV-IMG-CA



MUV-IMG-CM



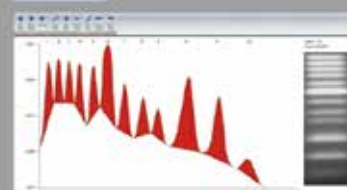
MS 1D Analysis Software (Cat. No. MBE-IMG-SW)

PC Version

Load image



Quantify



Tool bar



Analysis



PC is not included



MUV-IMG-CA-01



MUV-IMG-CM-01



MBE-IMG-CM-03



UVCI-1000-EB



UVCI-1000-SG



MBE-IMG-F3



MBE-IMG-F4



MBE-201

Specifications

Model	MUV-IMG-CA (SmartView simple 310)	MUV-IMG-CM (SmartView simple 320)
Camera	12.1MP digital camera , Wi-Fi function	5.0MP ,10bit scientific grade camera
Special features	Camera with built-in Wi-Fi	Analysis software included
Aperture	f/1.8(W) - f/2.8(T)	6mm, max. f/1.2
Shutter speed	15 - 1/4000 sec.	30 - 0.01 sec.
Storage media	SD memory card, Wi-Fi to PC	PC
Dimension (WxLxH)	9.29"x12.48"x16.38" (236x317x416mm)	
Weight	Approx. 3.1lbs. (1.4kg)	
Max. viewing size	10.24"x8.27" (260x210mm)	
Filter (camera)	Optical EtBr Filter and SYBR Green Filter *Ordered separately	
Software support	N / A	Windows 10 / 8 / 7/(64 & 32bit)/XP/Vista
1 D analysis software	N / A	Cat. No. MEB-IMG-SW included

Ordering Information

Cat. No.	Product Description
MUV-IMG-CA	SmartView Simple 310 Imager System, with 12.1MP digital camera with built-in Wi-Fi
MUV-IMG-CM	SmartView Simple 320 Imager System, with 5.0MP scientific grade camera
MUV-IMG-CA-01	SmartView 310 holder kit, includes hood and camera adaptor
MUV-IMG-CM-01	SmartView 320 holder kit, includes hood and camera adaptor
MBE-IMG-CM-03	5.0MP scientific grade camera, lens and USB cable

* All filters have to be ordered separately.

MUV-IMG-CA is offered as a complete system for the user to perform image capture, including:

- 1 x digital camera
- 1 x lens adaptor
- 1 x memory card



LENS-01



Accessories

Cat. No.	Product Description
UVCI-1000-EB	Optical EtBr Filter (620nm) for SmartView Pro & Simple Imager System
UVCI-1000-SG	Optical SYBR Green Filter (520nm) for SmartView Pro & Simple Imager System
MBE-IMG-F3	SmartView Amber Filter, 560nm
MBE-IMG-F4	SmartView Amber Filter, 580nm
MBE-201	Rubber Flap

Bundle Packages

Cat. No.	Product Description
MUV21-CP-02	Complete package of MUV21-312 Transilluminator and SmartView simple 310 Imager System
MUV21-CP-03	Complete package of MUV21-312 Transilluminator and SmartView simple 320 Imager System
MUV26-CP-02	Complete package of MUV26-312 Transilluminator and SmartView simple 310 Imager System
MUV26-CP-03	Complete package of MUV26-312 Transilluminator and SmartView simple 320 Imager System
MUVB-111-CP-02	Complete package of SmartView 111 Transilluminator and SmartView simple 310 Imager System
MUVB-111-CP-03	Complete package of SmartView 111 Transilluminator and SmartView simple 320 Imager System



MUV21-CP-02 /
MUV26-CP-02



MUV21-CP-03 /
MUV26-CP-03



MUVB-111-CP-02



MUVB-111-CP-03

Compact Digimage System

UVDI series

The Compact Digimage System is a complete and compact gel documentation system with a digital control panel. The system uses a digital camera for image capture. The system is equipped with a built-in UV Transilluminator and a large 8" TFT colorful screen for gel observation. Its side access design provides a safe and convenient way for the user to recover agarose gel bands. For a low budget and limited space, the Compact Digimage System can be operated without a computer. A variety of images can be captured including: agarose and other fluorescent gels, colorimetric gels, autoradiography film, and blotting membrane. A safety switch is equipped to turn off the UV Transilluminator automatically when the front door is opened. Files can be saved in a variety of formats, including RAW format, for transfer to a computer for storage and analysis. The Digimage System can also directly connect to any BNC thermal printer for printing the result immediately.



High resolution 8" TFT screen

Features

- 12.1 megapixel digital camera
- High resolution 8" TFT screen
- Digital control panel
- Compact chamber and lightweight
- Multi focus area selection
- Built-in UV Transilluminator
- Can be operated computer free
- Connect port for thermal printer
- Inner 2x3 W white light LED
- Safety door switch
- Multi power source
- Optional gel analysis software package available
- Universal rated voltage: 100-240V

UVDI series



UVDI-CB series



UVDI series is offered as a complete system for the user to perform image capture, including:

- 1 x Compact Digimage System chamber
- 1 x digital camera
- 1 x DC coupler
- 1 x lens adaptor
- 1 x 8" color TFT screen
- 1 x memory card
- 1 x memory card reader
- 1 x built-in UV transilluminator



DI-WLA3 (297x400mm)
DI-WLA4 (210x297mm)
DI-WLA5 (105x150mm)

PC is not included



Viewing window



Convenient access



Digital control panel

Specifications

Camera	
Type	5 x optical / 4 x digital zoom digital camera
Effective pixels	Approx. 12.1 megapixels
Sensor	1/1.7" high-sensitivity CMOS
Maximum aperture	f/1.8 (W) - f/2.8 (T)
Shutter speed	15 - 1/4000 sec.
Filter	+3 close up Filter (Standard) and EtBr or SYBR Green Filter(optional)
Storage media	SD memory card
Computer interface	USB 2.0 Hi-speed (mini-B jack)
Video out	NTSC / PAL

UV Transilluminator	
Wavelength	254 / 312 (302) / 365nm
Filter size	8.27"x8.27" (210x210mm)
Light source	6 tubes, 8W/tube
Filter	Long life Filter
Intensity switch	High (100%) / Low (70%) Intensity switch (Single wavelength mode only)

Darkroom	
Multi-power source	For camera, inner white LED, TFT screen
Inner white light	2 white LED, 3W/LED
Safety device	Safety door switch
Side access	For cutting gels
Dimension (WxLxH)	13.19"x21.26"x18.50" (335x540x470mm)
Chamber material	Painted metal
Rated voltage	110V - 220V
Weight	Approx. 44.0lb (20.0kg)

8" TFT Screen	
Type	8" TFT crystal screen
Resolution	800x600 pixels
Brightness	350cd / m ²
Constant ratio	300 : 1
Display mode	NTSC / PAL / SECAM mode auto switching

Ordering Information

Cat. No.	Product Description
UVDI-254	Compact Digimage System with 12.1MP digital camera and built-in 254nm UV Transilluminator
UVDI-312	Compact Digimage System with 12.1MP digital camera and built-in 312 (302)nm UV Transilluminator
UVDI-365	Compact Digimage System with 12.1MP digital camera and built-in 365nm UV Transilluminator
UVDI-254/365	Compact Digimage System with 12.1MP digital camera and built-in 254 & 365nm UV Transilluminator
UVDI-254/312	Compact Digimage System with 12.1MP digital camera and built-in 254 & 312 (302)nm UV Transilluminator
UVDI-CB-254	Compact Digimage System with 12.1MP digital camera and built-in 254nm UV Transilluminator, w/o digital camera
UVDI-CB-312	Compact Digimage System with 12.1MP digital camera and built-in 312 (302)nm UV Transilluminator, w/o digital camera
UVDI-CB-365	Compact Digimage System with 12.1MP digital camera and built-in 365nm UV Transilluminator, w/o digital camera
UVDI-CB-254/365	Compact Digimage System with 12.1MP digital camera and built-in 254 & 365nm UV Transilluminator, w/o digital camera
UVDI-CB-254/312	Compact Digimage System with 12.1MP digital camera and built-in 254 & 312 (302)nm UV Transilluminator, w/o digital camera

*UVDI-CB series excludes 12.1 megapixel digital camera, DC coupler, 2GB memory card and memory card reader.

* All filters have to be ordered separately.

Accessories

Cat. No.	Product Description
DI-CLEB	Close up lens and EtBr Filter for Compact Digimage System
DI-CLSG	Close up lens and SYBR Green Filter for Compact Digimage System
DI-CL	Close up lens for Compact Digimage System
DI-EB58-1	EtBr Filter for Compact Digimage System
DI-SG58-1	SYBR Green Filter for Compact Digimage System
DI-DR-80	DC coupler
DI-WLA3-110/220	White Light Plate 297x400mm (110 / 220V)
DI-WLA4-110/220	White Light Plate 210x297mm (110 / 220V)
DI-WLA6-110/220	White Light Plate 105x150mm (110 / 220V)
DI-UNSCAN-IT	Basic gel analysis software package
MUV-T254	8W 254nm UV lamp
MUV-T312	8W 312 (302)nm UV lamp
MUV-T365	8W 365nm UV lamp
MUV-F21-254/365	21x21cm Filter for built-in 254/365nm UV Transilluminator (with stainless steel frame)
MUV-F21-312	21x21cm Filter for built-in 312(302)nm UV Transilluminator (with stainless steel frame)

Digimage System

DI-01

The Digimage System is a simple, compact gel documentation system with a rear digital control panel. It contains the Canon powershot G16, a digital camera with a superb resolution of 12.1 megapixels. The image is viewed from a large 8" TFT colorful screen with monitor purpose only. For a lab with limited space and low budget requirements, the Digimage System is definitely your top choice since it's computer-free operation. A variety of images can be captured including: agarose and other fluorescent gels, colorimetric gels, auto radiography film, and blotting membrane. A safety switch is equipped to turn off the UV Transilluminator automatically when the front door is opened. Files can be saved in a variety of formats, including RAW format, for transfer to a computer for storage and analysis. The Digimage System can also directly connect to any BNC thermal printer for printing the result immediately.



High resolution 8" TFT screen

Features

- 12.1 megapixel digital camera
- High resolution 8" TFT screen
- Digital control panel
- Compact chamber and lightweight
- Multi focus area selection
- Built-in UV Transilluminator
- Can be operated computer free
- Connect port for thermal printer
- Inner 2x3 W white light LED
- Safety door switch
- Multi power source
- Optional gel analysis software package available
- Universal rated voltage: 100-240V



DI-HD

DI-01

DI-01



DI-01 is offered as a complete system for the user to perform image capture, including:

- 1 x Digimage System hood
- 1 x digital camera
- 1 x DC coupler
- 1 x lens adaptor
- 1 x 8" color TFT screen
- 1 x memory card
- 1 x memory card reader



PC is not included



MUV21-CP-01/
MUV26-CP-01



MUVB-111-CP-01

Specifications

Camera	
Type	5 x optical / 4 x digital zoom digital camera with built-in Wi-Fi
Effective pixels	Approx. 12.1 megapixels
CCD	1/1.7" high-density CCD; total pixels 15.0 million
Maximum aperture	f/1.8 (W) - f/2.8 (T)
Shutter speed	15 - 1/4000 sec.
Filter	+3 close up Filter (Standard) EtBr or SYBR Green Filter(optional)
Storage media	SD memory card
Computer interface	USB 2.0 Hi-speed (mini-B jack) or Wi-Fi connection
Video out	NTSC / PAL
Darkroom	
Multi-power source	For camera, inner white LED, TFT screen
Inner white light	2 white LED, 3W/LED
Safety device	Safety door switch
Dimension (WxLxH)	11.41"x8.66"x12.60" (290x220x320mm)
Rated voltage	110V - 240V
Weight	Approx. 13.4lb (6.1kg)
8" TFT Screen	
Type	8" TFT crystal screen
Resolution	800x600 pixels
Brightness	350cd / m ²
Constant ratio	300 : 1
Display mode	NTSC / PAL / SECAM mode auto switching

Ordering Information

Cat. No.	Product Description
DI-01	Digimage System with 12.1 megapixels digital camera
DI-HD	Digimage System hood without digital camera

*DI-HD excludes 12.1 megapixel digital camera, DC coupler, memory card and memory card reader

* All filters have to be ordered separately.

Accessories

Cat. No.	Product Description
DI-CLEB	Close up lens and EtBr Filter for Digimage System
DI-CLSG	Close up lens and SYBR Green Filter for Digimage System
DI-CL	Close up lens for Digimage System
DI-EB58-1	EtBr Filter for Digimage System
DI-SG58-1	SYBR Green Filter for Digimage System
DI-DR80	DC coupler
DI-WLA3-110/220	White Light Plate 297x400mm (110 / 220V)
DI-WLA4-110/220	White Light Plate 200x300mm (110 / 220V)
DI-WLA6-110/220	White Light Plate 105x150mm (110 / 220V)
DI-UNSCAN-IT	Basic gel analysis software package



DI-WLA3 (297x400mm)
DI-WLA4 (210x297mm)
DI-WLA5 (105x150mm)

Bundle Package

Cat. No.	Product Description
MUV21-CP-01	Complete package of MUV21-312 Transilluminator and Digimage System
MUV26-CP-01	Complete package of MUV26-312 Transilluminator and Digimage System
MUVB-111-CP-01	Complete package of SmartView 111 Transilluminator and Digimage System

SmartView Transilluminator

MUVB-100 series

SmartView Transilluminator is the next generation of the illuminator for your lab. Combining the blue light and UV light, this equipment allows you to work either using blue light or UV light with your samples.

The Epi-Blue light proportionally emits your sample to give excellent fluorescence for you to view the nucleic acid bands. As the single or dual wavelength UV light allows you to induce stronger signals.

Moreover, since blue light is within visible light spectrum, it simply provides just enough energy to induce the signals without endangering operator' safety.

In addition, this two-in-one system provides you additional convenience to work on any of your sample with UV light with or blue light simultaneously without moving your gel back and forth. SmartView Transilluminator is the ultimate source for any of your lab practice.



Built-in blue LED module provides flexibility in DNA stain selection

Features

- Built-in blue light LED module with UV light
- Single or dual wavelength models available for different application purposes
- Adjustable UV protection cover for better viewing angle efficiency
- Industrial leading long life UV Filter
- Fast start up without flickering to instantaneously illuminate tubes
- High/Low intensity switch to minimize DNA degradation
- High efficiency reflector provides optimum use of UV light



MUVB-100



Dye Application Guide

Cat. No.	UV Light	Blue Light
SYBR® green I (DNA)	✓	✓✓
SYBR® green II (RNA)	✓	✓✓
SYBR® Gold	✓	✓✓
Midori green direct	✓	✓✓
Hydra green™ safe DNA dye	✓	✓✓
HD green™ DNA stain	✓	✓✓
Novel juice	✓	✓✓
SafeView DNA stain	✓✓	✓✓
SYBR® safe	✓	✓✓
Midori green	✓	✓✓
Midori green advanced	✓	✓✓
Gelgreen™	✓	✓✓
GelRed™	✓✓	✓
Ethidium bromide	✓✓	
Serva DNA stain clear G	✓✓	
HealthView™	✓✓	

✓✓ Excellent

✓ Good

Specifications

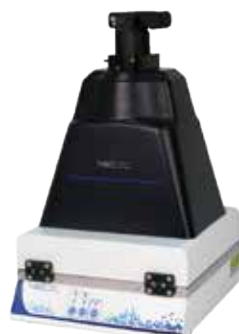
Model	Cat. No.	Type	Wavelength	UV Light Source (1tube / 8W)
SmartView 111	MUVB-111	Single	312(302)nm	5 tubes
SmartView 112	MUVB-112	Single	254nm	5 tubes
SmartView 113	MUVB-113	Single	365nm	5 tubes
SmartView 114	MUVB-114	Single	312(302)nm (high performance)	5 tubes
SmartView 121	MUVB-121	Dual	254nm / 312(302)nm	4 tubes / 5 tubes
SmartView 122	MUVB-122	Dual	254nm / 365nm	5 tubes / 4 tubes
SmartView 123	MUVB-123	Dual	254nm / 312(302)nm (high performance)	4 tubes / 5 tubes



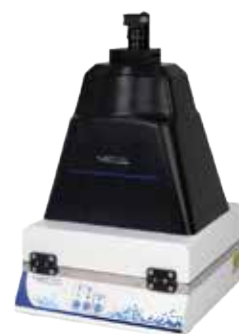
MBE-G-Y1



MUVB-111-CP-01



MUVB-111-CP-02



MUVB-111-CP-03

Specifications

Model	SmartView
Filter size	(WxL) 21 x 21 cm
Intensity switch	High (100%) / Low (70%) intensity switch for single wavelength model
Fast response	High quality starter to light up the tubes instantaneously and cause no blinking
Blue light source	1W x 18 lamps
UV resistance plastic cover	(WxL) 225x260 mm (Transparent)
Blue light resistance plastic cover	(WxL) 225x260 mm (Orange)
Dimension	(WxLxH) 340x286x176 mm
Rated voltage	100-230V~ ,50/60Hz, 2A
Weight	Approx. 11.2kg

Ordering Information

Cat. No.	Product Description
MUVB-111	SmartView 111 Transilluminator with blue light and built-in UV, single wavelength 312(302)nm
MUVB-112	SmartView 112 Transilluminator with blue light and built-in UV, single wavelength 254 nm
MUVB-113	SmartView 113 Transilluminator with blue light and built-in UV, single wavelength 365 nm
MUVB-114	SmartView 114 Transilluminator with blue light and built-in UV, single wavelength 312(302) nm, high performance
MUVB-121	SmartView 121 Transilluminator with blue light and built-in UV, dual wavelength 254/312(302)nm
MUVB-122	SmartView 122 Transilluminator with blue light and built-in UV, dual wavelength 254/365nm
MUVB-123	SmartView 123 Transilluminator with blue light and built-in UV, dual wavelength 254/312 (302)nm, high performance

* For different single wavelength models. please consult with your regional manager.

* All filters have to be ordered separately.

Accessories

Cat. No.	Product Description
MBE-G-Y1	Amber Filter Viewing Glasses (optional)

Bundle Packages

Cat. No.	Product Description
MUVB-111-CP-01	Complete package of SmartView 111 Transilluminator and Digimage System
MUVB-111-CP-02	Complete package of SmartView 111 Transilluminator and SmartView Simple 310 Imager System
MUVB-111-CP-03	Complete package of SmartView 111 Transilluminator and SmartView Simple 320 Imager System
MUVB-114-CP-01	Complete package of SmartView 114 Transilluminator and Digimage System
MUVB-114-CP-02	Complete package of SmartView 114 Transilluminator and SmartView Simple 310 Imager System
MUVB-114-CP-03	Complete package of SmartView 114 Transilluminator and SmartView Simple 320 Imager System



UV light applied



Blue light applied



Removable amber Filter

UV

Transilluminator

MUV series

The bench-top UV Transilluminator series offers the researcher uniform and intense sources of ultraviolet light (radiation) with a compact footprint. Their special design emits either one or dual intensity excitation UV wavelengths for back-illumination of transparent fluorescent materials. 254nm, 312 (302)nm, 365nm, 254 & 365nm, and 254 & 312 (302)nm modes are available for different applications. There are two choices of Filter size viewing dimensions, 26x21cm and 21x21cm for different user requirements. The 365nm mode is offered for easily viewing gels under long wave for extended periods of time avoiding photo nicking damage. The 254nm mode is used to irradiate samples. The 312 (302)nm mode is suggested for general gel operating. The single wavelength modes have a high intensity / low intensity switch equipped. All bench-top transilluminator modes are compact, lightweight and economical.

Now a high performance model, 312 (302)nm UV Transilluminator with a strong lighting and longer life time tubes, was introduced for the requirement.



Adjustable UV protection cover

Features

- 254nm or 312 (302)nm or 365nm or 254/365nm or 254/312 (302)nm modes available
- 26x21cm or 21x21cm view dimension
- High intensity / low intensity switch for single wavelength model
- Adjustable UV protection cover for better viewing angle efficiency
- High performance models available
- Long life time Filter



MUV-21 series



MUV-26 series



Specification

Model	MUV26 series	MUV21 series
Wavelength	254 / 312 (302) / 365nm	
Filter size	10.24"x8.27" (260x210mm)	8.27"x8.27" (210x210mm)
Light source	6 tubes, 8W/tube	
Filter	Long life Filter	
	High efficiency reflector	
Intensity switch	High (100%)/Low (70%) intensity switch for single wavelength mode	
Fast start up	New high quality starter to simultaneously illuminate tubes, when switched on and no blink	
UV resistant plastic cover	(WxL) 12.99"x9.84" (330x250mm)	
Dimension (WxLxH)	13.39"x11.61"x3.94" (340x295x100mm)	
Weight	Approx. 16.5lb (7.5kg)	
Rated voltage	110V/220V	

Ordering Information

Cat. No.	Product Description
MUV21-254	21x21cm Transilluminator for 254nm
MUV21-312	21x21cm Transilluminator for 312 (302)nm
MUV21-312H	21x21cm Transilluminator for 312 (302)nm, high performance
MUV21-365	21x21cm Transilluminator for 365nm
MUV21-254/365	21x21cm Transilluminator for 254 and 365nm
MUV21-254/312	21x21cm Transilluminator for 254 and 312 (302)nm
MUV21-254/312H	21x21cm Transilluminator for 254 and 312 (302)nm, high performance
MUV26-254	26x21cm Transilluminator for 254nm
MUV26-312	26x21cm Transilluminator for 312 (302)nm
MUV26-312H	26x21cm Transilluminator for 312 (302)nm, high performance
MUV26-365	26x21cm Transilluminator for 365nm
MUV26-254/365	26x21cm Transilluminator for 254 and 365nm
MUV26-254/312	26x21cm Transilluminator for 254 and 312 (302)nm
MUV26-254/312H	26x21cm Transilluminator for 254 and 312 (302)nm, high performance

Bundle Packages

Cat. No.	Product Description
MUV21-CP-01	Complete package of MUV21-312 Transilluminator and Digimage System
MUV21-CP-02	Complete package of MUV21-312 Transilluminator and SmartView simple 310 Imager System
MUV21-CP-03	Complete package of MUV21-312 Transilluminator and SmartView simple 320 Imager System
MUV26-CP-01	Complete package of MUV26-312 Transilluminator and Digimage System
MUV26-CP-02	Complete package of MUV26-312 Transilluminator and SmartView simple 310 Imager System
MUV26-CP-03	Complete package of MUV26-312 Transilluminator and SmartView simple 320 Imager System



MUV21-CP-01/ MUV26-CP-01



MUV21-CP-02/ MUV26-CP-02



MUV21-CP-03/ MUV26-CP-03



Blue Light Technology

The amazing and newly innovated SafeBlue product series utilize the power of blue light, which allows you to run your standard electrophoresis experiment with immediate and outstanding results and not compromising your safety and protection. Blue light technology allows you to view your DNA/RNA bands without causing photonicking damage to your samples. SafeBlue system comprises the SafeBlue Illuminator, SafeBlue Electrophoresis System and SafeBlue Imager Systems. All three products are completely compatible with each other. Different accessories are also available should you need expansion or replacements.

Blue Light Technology

SafeBlue System

84-89

- ❖ SafeBlue Illuminator / Electrophoresis System
- ❖ SafeBlue Imager System / Darkroom Viewer

Blue Light Illuminator

90-91

- ❖ Mini SafeBlue Electrophoresis System
- ❖ BluView Transilluminator



*All images are for reference only, actual products might differ from the images.

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

*Technical specification subject to change without notice.

SafeBlue Illuminator / Electrophoresis System

MBE-150 MBE-150-PLUS

For MBE-150

The innovative SafeBlue Illuminator is an unit with combination of a small power supply with Blue Light Illuminator. The system emits blue LED light which allows you to view your DNA/RNA bands without worrying about the harmful UV damage to your samples and eyes. SafeBlue Illuminator could also be used as a simple Blue Light Illuminator to cut your samples from gels.

For MBE-150-PLUS

The SafeBlue Electrophoresis System also uses Blue LED Light to allow for immediate visualization of DNA/RNA bands while running agarose electrophoresis gel. The complete system comes with three different sizes of gel trays for your convenience of use, 15x7cm, 15x10cm and 15x15cm. The system is RoHS and CE compliant for environmental and safety concerns. Different accessories are also available for user to select.

Features

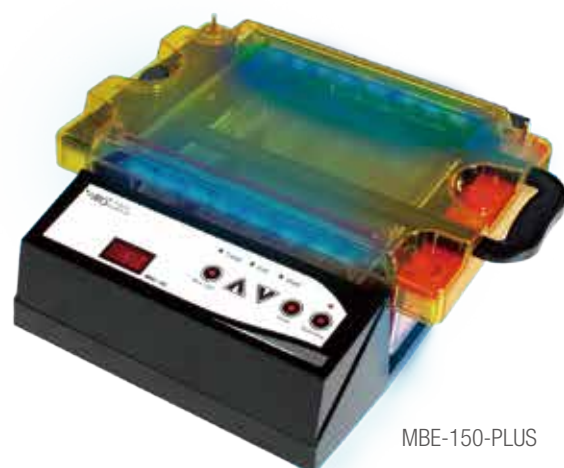
- **Innovative** — a complete 4-in-1 system (run, view, capture and cut gel) with simple and easy set up on the image capture/analysis software.
- **Convenient** — run as you see, real time visualization on your DNA/RNA band migration
- **Compact** — footprint smaller than most UV transilluminator, easy to move and ideal for limited bench top space
- **Economical** — an inexpensive imager system with scientific or digital camera. Multiple accessories are also available to increase experimental efficiency
- **Safe** — 470nm blue light less invasive than UV light
- **Flexible** — UV tray adaptors available, compatible with MJ-105 or Mupid 2.
- **Versatile** — support gel trays 15x15cm or smaller
- **Compatible** — MBE-IMG combo with as Image System
- **Optimized performance** — SYBR series DNA/RNA stains, Novel Juice and Midori Green series
- **Simple** — DNA/RNA recovery method

MBE-150



MBE-150 includes:

- 1 x SafeBlue Electrophoresis System Base Unit
- 1 x Power adaptor
- 1 x Power cord

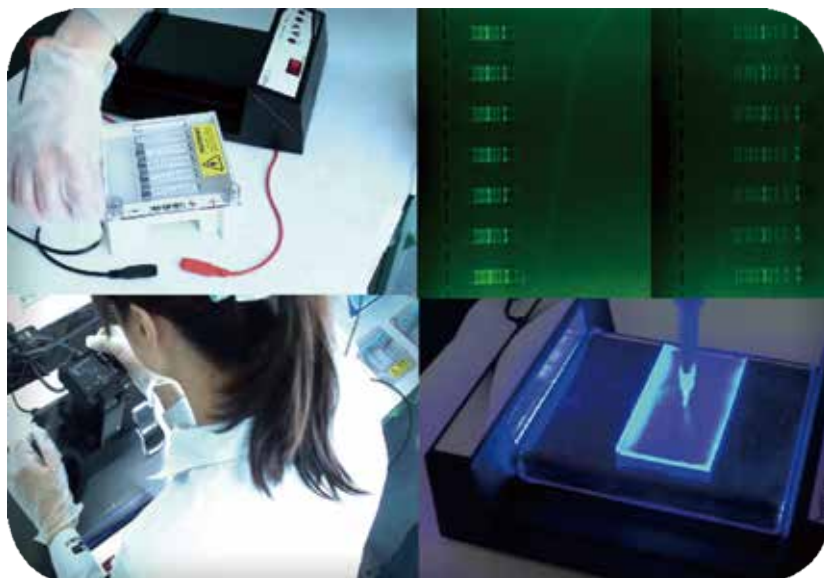


MBE-150-PLUS

MBE-150-PLUS includes:

- 1 x SafeBlue Electrophoresis System Base Unit
- 1 x SafeBlue Electrophoresis Tank
- 1 x Filter lid
- 1 x Power cord
- 1 x 15x7cm UV tray
- 1 x 15x10cm UV tray
- 1 x 15x15cm UV tray
- 2 x 20 sample combs (1mm thick)
- 2 x UV tray casting dams





4 in 1 feature allows you to run as you see in real-time motion

Specification

Cat. No.	MBE-150
Output voltage / Inc.	10-150V / 1V
Output current / Inc.	10-300mA / 1mA
Max. power	30W
Operating mode	Constant Voltage or Current
Timer	999 (min) with alarm / Continuous
Safety device	No load detection
Crossover	Yes
Blue light wavelength	470nm
Operating temperature	Ambient to 40°C
Dimension	(WxLxH) 11.54"x7.87"x3.15" (293x200x80mm)
Weight	Approx. 2.4lb (1.1kg)
Material	Polycarbonate housing and aluminum base plate
Power adaptor	Input: 100-240VAC, 50/60Hz, 1.4A Output: 15VDC, 4.0A, 60W max.
Cat. No.	MBE-TANK
Dimension (WxLxH)	10.43"x6.89"x3.54" (265x175x90mm)
Gel dimension (WxL)	5.91"x2.76" (150x70mm), 5.91"x3.94" (150x100mm), 5.91"x5.91" (150x150mm)
Maximum sample	70 for 2.76"x5.91"x2.76"(150x70mm) Tray (2x35 sample combs)
	140 for 5.91"x5.91"x3.94"(150x100mm) Tray (4x35 sample combs)
	210 for 8.27"x5.91"x5.91"(150x150mm) Tray (6x35 sample combs)
Buffer volume	500ml
Material	Acrylic (Injection molded construction) Durable, leak proof environment for complete safety and long life
Cassette type electrode	Inexpensive, easy to replace
Electrical safety	Lid can only be fastened in one way Upon lid removal, power is disconnected from buffer chamber
Rapid casting gel	Use casting dams
Cat. No.	MBE-LID-Y1
Dimension (WxLxH)	6.93"x10.55"x1.38" (176x268x35mm)
Filter type	Amber filter (for dyes selection please refer to comparison table for various nucleic acid stain performance, page 87)
Lid filter wiper	Used to remove condensation
Material	Polycarbonate

Ordering Information

Cat. No.	Product Description
MBE-150	SafeBlue Illuminator
MBE-150-PLUS	SafeBlue Electrophoresis System, including SafeBlue Illuminator, electrophoresis gel tanks, Amber Filter lid, image enhancer film and red/black cable

Accessories

Cat. No.	Product Description
MBE-G-Y1	Amber filter viewing glasses (optional)
MBE-UV15-TH01	ME15-UV15 Tray Holder, 2 cuts , cut size 109.5x60.5mm (for MJ-105 trays)
MBE-UV15-TH02	ME15-UV15 Tray Holder, 1 cut , cut size 130.5x122.5mm
MBE-TANK-01	SafeBlue electrophoresis gel tank image enhancer film
MBE-150-02	SafeBlue gel cutting tray
MBE-150-3	SafeBlue Illuminator platform protective film
MBE-LID-Y1	MBE-150 lid with Amber Filter
MBE-150-CABLE	MBE-150 red/black cables
MBE-150-01	SafeBlue Imager System, dark room viewer
MBE-TLC	Package of MBE-TANK, MBE-LID-Y1 and MBE-150-CABLE
MBE-TANK	Electrophoresis Tank for SafeBlue (without lid and Red/black cables)
NAS01	Midori Green Direct DNA stain, 1ml
NAS02	Novel Juice DNA stain, 1ml

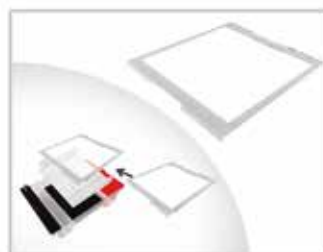
* For more information of MBE-IMG-CA/CM, please refer to SafeBlue Imager System.



MBE-G-Y1



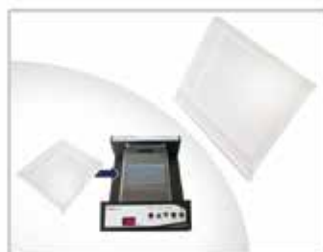
ME15-UV15-TH01



ME15-UV15-TH02



MBE-TANK-01



MBE-150-02



MBE-150-3



MBE-LID-Y1



MBE-150-CABLE



MBE-150-01



MBE-TLC



MBE-TANK



MBE-150-01

Bundle Packages

Cat. No.	Product Description
MBE-CP-01	SafeBlue Electrophoresis System complete set with 210 Imager System
MBE-CP-02	SafeBlue Electrophoresis System complete set with 220 Imager System

*For more information please refer to [Page 88-89](#)

Bundle Packages



MBE-CP-01

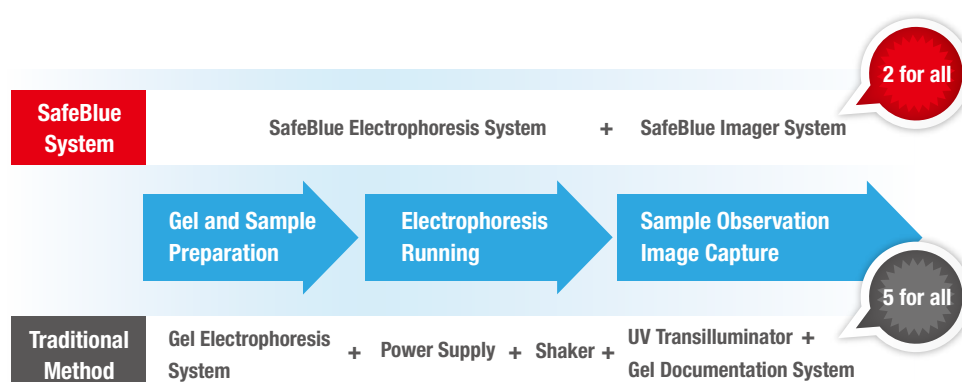


MBE-CP-02

Comparison table for various nucleic acid stain performance

Nucleic Acid Stain	Performance	Experimental Protocol		
		Pre-staining	Post Staining	Sample Staining
SYBR® Green I (DNA)	Excellent	✓	✓	✓
SYBR® Green II (RNA)	Excellent		✓	✓
SYBR® Gold	Excellent	✓	✓	
Midori Green Direct	Excellent			✓
Hydra Green™ Safe DNA Dye	Excellent	✓	✓	
HD Green™ DNA Stain	Excellent	✓	✓	
Novel Juice	Excellent			✓
SafeView DNA Stain	Well	✓		
SYBR® Safe	Well	✓	✓	
Midori Green	Well	✓	✓	
Midori Green Advanced	Well	✓	✓	
GelGreen™	Well	✓	✓	
GelRed™	NR	✓	✓	
Ethidium Bromide	NR	✓	✓	
Serva DNA Stain Clear G	Well	✓	✓	
HealthView™	Well	✓		

NR= Not recommended



Innovative Electrophoresis System

1. Early detection of running error (run as you see)
2. No more gel-transfer, gloves free!
3. Saves you time for gel staining & destaining
4. Compact in size (no large lab area required)

SafeBlue

Imager System/ Darkroom Viewer

MBE-IMG series

The SafeBlue Imager System offers three selections for your convenience and preference. The compact digital camera allows you to take pictures from the camera and stores in the memory card without any hassle. The portable and light design allows you to carry it with ease. The 5MP scientific grade camera provides an excellent image to your laptop through the USB connection whereas the digital camera type offers computer free operation. The darkroom viewer provides a darkroom environment for you to view the migrating DNA with ease. The SafeBlue Imager System completes the SafeBlue electrophoresis series for all your needs - from gel casting, gel electrophoresis to gel documentation; all in one system. The complete SafeBlue Imager System not only saves your lab bench space, but also provides excellent portability to move from lab to lab.

PC Requirement:

- Processor: 1.8GHz Pentium® IV or equivalent AMD Athlon® processor
- Memory: 512MB required
- Storage: 1GB
- Media: CD-ROM drive
- Connectivity: 1 port USB 2.0
- Video: 1280x800 resolutions
- Operating System: Windows® 7 SP1/ Windows® Vista SP1 / Windows® XP SP3 / Windows® 8
- Printer: USB printer or thermal printer (optional)



Easy handling and set up for gel imaging

Features

- Light weight and space saving design
- Ready to use out of the box; just connect and capture
- Two camera types available: choose digital camera or scientific grade camera
- Designed for SafeBlue Electrophoresis System to complete cast, run, and capture
- Gel analysis software also included for FREE. (Only applies to scientific grade camera model)
- PC-free for digital camera model. PC required for scientific camera model.

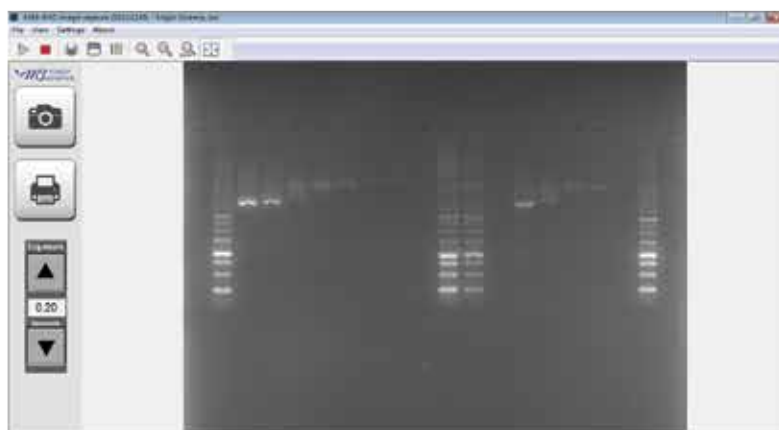


MBE-IMG-CA

MBE-IMG-CM



*Note: PC not included.



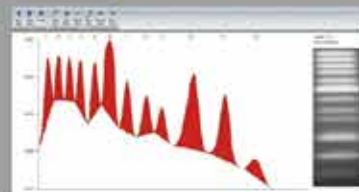
MS 1D Analysis Software(Cat. No. MBE-IMG-SW)

PC Version

Load image



Quantify



Define region



Analysis



PC is not included



MBE-IMG-CA-01



MBE-IMG-CA-02



MBE-IMG-CM-01



MBE-IMG-CM-02



MBE-IMG-CM-03



MBE-IMG-F3



MBE-IMG-F4



MBE-G-Y1



LENS-01

Specification

SafeBlue Imager System 210 Digital Camera	
Type	5 x optical / 4 x digital zoom digital camera with built-in Wi-Fi
Effective pixels	Approx. 12.1 megapixels
Maximum aperture	f/1.8 (W) - f/2.8 (T) or Aperture f/number / f1.8-f18.0(w), f/2.8-f/8.0(T)
Shutter speed	1 - 1/4000 sec.
Storage media	SD memory card
Computer interface	USB 2.0 Hi-speed (mini-B jack) or Wi-Fi connection
Video out	NTSC / PAL mode switchable



SafeBlue Imager System 220 Scientific Grade Camera	
Resolution	2592x1944pixels
Video output format	Raw 8/10/12bit
FPS (Frame Per Second)	5 frames Max. Frame Rate: 14fps
Sensitivity	1.4V / lux-sec
PC Software file format	BMP, JPEG, TIFF, PNG
PC Software exposure range	30 - 0.01sec.
Focal length	6mm
Maximum relative aperture	F1.2
Grayscale	12bit, 0-4095 gray levels
Dynamic range	70.1DB

SafeBlue Imager System Dark Room

Camera holder material	POM (Polyoxymethylene) Aluminum alloy
Darkroom material	ABS (Acrylonitrile Butadiene Styrene)
Darkroom dimension	(WxLxH) 13.4"x7.68"x15.75" (340x195x400mm)
Amber filter ordered separately	Yellow Amber Filter / Orange Amber Filter
Weight	Approx. 1.8lb (0.8kg), including a camera

Ordering Information

Cat. No.	Product Description
MBE-IMG-CA	SafeBlue 210 Imager System with 12.1 megapixel digital camera and hood kit
MBE-IMG-CM	SafeBlue 220 Imager System with 5.0 megapixel scientific grade camera and hood kit
MBE-150-01	SafeBlue Imager System, dark room viewer
MBE-IMG-CA-01	SafeBlue 210 Hood Kit, includes camera adapter, and hood
MBE-IMG-CA-02	SafeBlue 210 Holder Kit, includes camera adapter
MBE-IMG-CM-01	SafeBlue 220 Hood Kit, includes camera adapter, and hood
MBE-IMG-CM-02	SafeBlue 220 Holder Kit, includes camera adapter
MBE-IMG-CM-03	5.0 megapixel scientific grade camera, lens and USB cable
MBE-IMG-F3	SafeBlue Amber Filter, 560nm or Yellow Amber Filter
MBE-IMG-F4	SafeBlue Amber Filter, 580nm or Orange Amber Filter
MBE-G-Y1	Amber filter viewing glasses
LENS-01	Lens adapter for digital camera

Bundle Packages

Cat. No.	Product Description
MBE-CP-01	SafeBlue Electrophoresis System complete set with 210 Imager System
MBE-CP-02	SafeBlue Electrophoresis System complete set with 220 Imager System

*For more information please refer to [Page 84-85](#)



MBE-150-01



MBE-CP-01



MBE-CP-02

Mini SafeBlue Electrophoresis System

MBE-100 series

The Mini SafeBlue System is the new member to the family. It consists of all the great features from the MBE-150 series but smaller in size, more economical and better performance. The Mini SafeBlue System offers flexibility in the electrophoresis tank selection and accommodates up to 13cm in tank width, so it can easily fit in our ME10 or ME7 series tank to perform run and view. The built-in fans on the tank lid helps reduce the vapor condensation, so the result can be seen more easily and clearly. The Mini SafeBlue System is perfect to run small numbers of PCR samples and performs quick result for immediate visualization.

Features

- Convenient — run as you see DNA migration
- Compact — footprint smaller than most UV transilluminator, easy to move and ideal for limited bench space
- Economical — an inexpensive imager system with scientific or digital camera; multiple accessories are also available to increase experimental efficiency
- Safe — 470nm wavelength blue light less invasive than UV light
- Flexible — UV tray adaptors available, compatible with MJ-105 or mupid 2
- No harmful effects of UV:
 1. Non-carcinogenic, safe for operator
 2. Significantly minimize sample degradation than UV

BluView Transilluminator

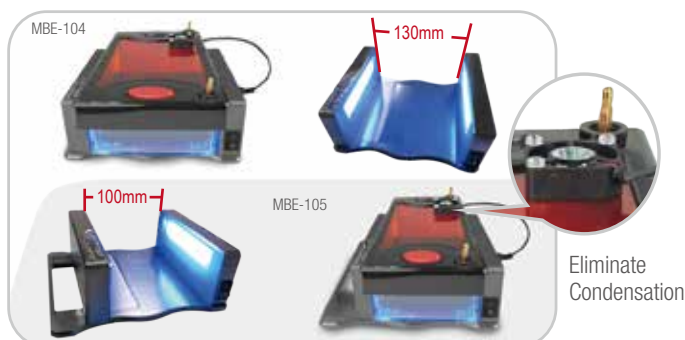
MBE-200

The BluView Transilluminator is packed with powerful 470nm blue LED light to enhance while maintaining environmentally safe to you and the mother Earth. With the gel illumination or gels stained by safe dyes imaging size of 15.4x15.4cm, you could fit any midi to small size gel on top of the transilluminator. Attached a 580nm filter lid allows you to view the sample within any angle available, adjustable hinge prevents any glare or reflection might affect your visibility.

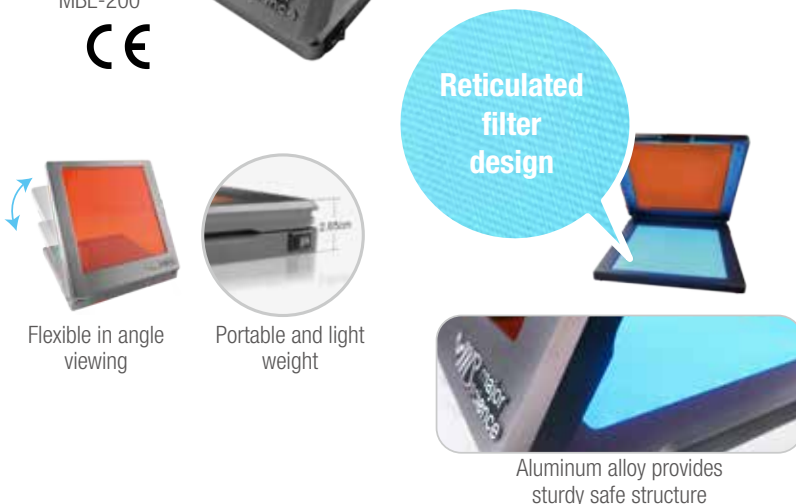
The BluView Transilluminator is also compatible with our imaging systems such as Digimage System and SmartView Simple Imager Systems.

Features

- Light weight, easy to carry in between labs
- Aluminum alloy casing design
- Low heat dispersion
- Energy saving product
- 470nm blue light for safe human contact



Flexible width for different sizes of electrophoresis tank (Midi plus and Midi plus-1 series)



Specification

Cat. No.	MBE-100	MBE-200
Illuminator base design	Adjustable base	Flat bed
Material	Aluminum alloy	Aluminum alloy
Power	AC Input: 100-240V~, 50/60Hz, 2A	AC Input: 100-240V~, 50/60Hz, 2A
	DC Input: +12V/5A, 60W Max.	DC Input: +12V/5A, 60W Max.
Blue light wavelength	470nm	470nm
Dimension	(WxLxH) 6.75"x6.18"x2.28" (171.4x157x58mm)	(WxLxH) 7.87"x7.87"x1.12" (200x200x28.7mm)
Weight	Approx. 3.3lb (1.52kg)	Approx. 3.3lb (1.52kg)
Filter viewing surface dimension	N /A	6.0"x6.0" (15.3x15.3cm)

Ordering Information

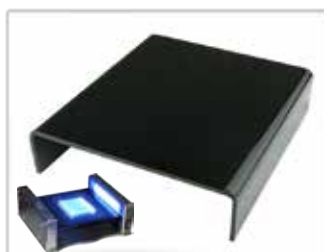
Cat. No.	Product Description
MBE-104	Package of MBE-100, MBE-102, MBE10-TANK, ME10-TANK-01 and MBE-150-CABLE
MBE-105	Package of MBE-100, MBE-103, MBE7-TANK, ME7-TANK-01 and MBE-150-CABLE
MBE-200	BluView Transilluminator, 470nm

Accessories

Cat. No.	Product Description
MBE-101	Observation tray for Mini SafeBlue Illuminator
MBE-102	Lid with 580nm Amber Filter and evaporation fan for Midi plus-1 Horizontal Electrophoresis system (ME10-7-10)
MBE-103	Lid with 580nm Amber Filter and evaporation fan for Midi plus Horizontal Electrophoresis system (ME7-7-10)
MBE-100	Mini SafeBlue Illuminator, 470nm
MBE7-TANK	ME7-7-10 Electrophoresis tank only, without Lid and Red / Black Cable
MBE10-TANK	ME10-7-10 Electrophoresis tank only, without Lid and Red / Black Cable
ME7-TANK-01	Image enhancer film for ME7-7-10 tank, black
ME10-TANK-01	Image enhancer film for ME10-7-10 tank, black
MBE-G-Y1	SafeBlue Amber Filter viewing glasses, 560nm
MBE-150-CABLE	Red / black cable for SafeBlue electrophoresis tank
MBE-201	Rubber flap



MBE-G-Y1



MBE-101



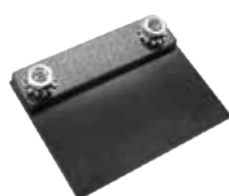
MBE-102



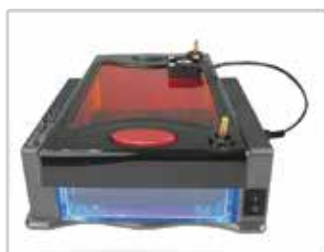
MBE-103



MBE-150-CABLE



MBE-201



MBE-104



MBE-105



ME7-TANK



ME10-TANK



ME7-TANK-01



ME10-TANK-01



Mixer/Temperature Control

Dry Bath, Incubator, Shaker, Stirring Water Bath

Major Science designs and manufactures a comprehensive range of mixing and temperature control equipments for use in the fields of analytical, diagnostic, and research laboratory. Designed with the user's needs in mind, our full product portfolio includes dry bath incubators, ovens, shakers, and water baths. This inter-related line features consistent performance, long durability, and outstanding stability.

Mixer/Temperature Control

Dry Bath Incubator

94-107

- ❖ Mini Heating Dry Bath Incubator
- ❖ Mini Cooling Dry Bath Incubator
- ❖ Genius Dry Bath Incubator
- ❖ Elite Dry Bath Incubator
- ❖ Ultimate Dry Bath Incubator
- ❖ Dry Bath Block & Beads

Incubator

108-111

- ❖ MS Oven
- ❖ MS Hybridization Oven
- ❖ MS Orbital Shaking Oven
- ❖ MS Hybridization Shaking Oven, Orbital
- ❖ MS Hybridization Shaking Oven, Reciprocal
- ❖ MS Hybridization Shaking Oven, Vortex

Shaker

112-115

- ❖ MS Orbital Shaker
- ❖ MS Reciprocal Shaker
- ❖ MS Rocking Shaker
- ❖ MS Waver Shaker

Stirring Water Bath

116-117

- ❖ 10L Stirring Water Bath
- ❖ 20L Stirring Water Bath

*All images are for reference only, actual products might differ from the pictures above.

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

*Technical specification subject to change without notice.

Model Selection Guide

Cat. No.	MO-AOR	MO-ARC	MO-AVT	MO-A01	MO-AOR-02	MO-ARK
Rotisserie function	Yes			N/A		Yes
Rotisserie speed / Inc.	5-100rpm / 1rpm			N/A		5-100rpm / 1rpm
Shaker motion	Orbital clockwise / counterclockwise	Reciprocal	Vortex motion	N/A	Orbital clockwise / counterclockwise	Rocking*
Shaker speed	0-200rpm	5-100rpm	50-1500rpm	N/A	0-200 rpm	5-100rpm

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



Orbital



Reciprocal



Rocking



Vortex



Rotation



Heating

Mini Heating Dry Bath Incubator

MD-MINI

The MS Mini Dry Bath incorporates innovative ideas of compactness, performance and versatility. This palm-sized yet powerful device is designed to maximize benchtop space and enhance research productivity with ultra-precise temperature control. The interchangeable ability of heating blocks in various size permits accommodation of versatile tube sizes. Moreover, turn it into a water bath or bead bath with optional metallic thermal beads.



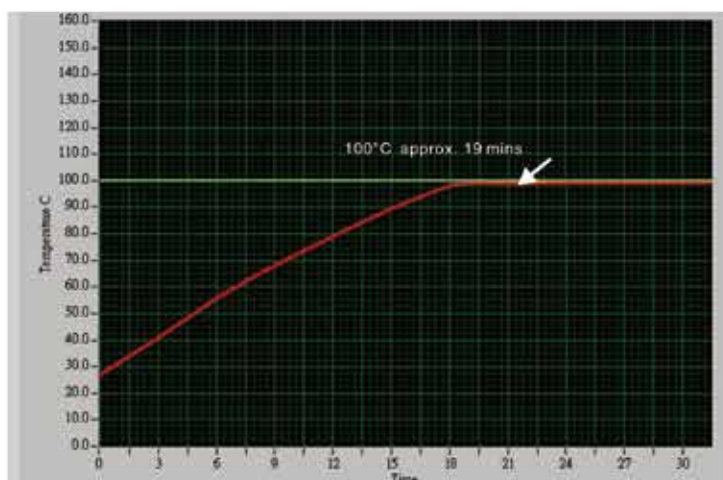
Clear block cover ensures temperature uniformity

Features

- Small size, fits in your palm
- User temperature calibration
- Single molded chamber, no cracks or welds
- PTFE coated chamber resists stains
- Can be used as a mini water bath or bead bath
- Outstanding heating rate
- Different sizes of heating block available for selection
- Clear cover to ensure temperature uniformity
- Optional in-car power adaptor provides portability on the road



FCCE
MD-MINI



■ Temp. set value: 100°C
 ■ Initial temp. value: 28°C
 Block model: MD-MINI-B02
 Process time: Approx. 19mins (with lid)



Specifications

Cat. No.	MD-MINI
Display	LED
Power	50W
Dimension	(WxLxH) 6.02"x4.92"x3.82" (153x125x97mm)
Controller	Digital microprocess controller
Heating chamber	Molded waterproof aluminum alloy coated with PTFE
Temperature control range	5°C above ambient to 100°C
Temperature increment	0.1°C
Temperature uniformity at 37°C	± 0.20°C
Temperature accuracy at 37°C	± 0.25°C
Temperature calibration	Yes
Timer	9999 (min) / Continuous
Safety	Leak proof heating chamber
	Over temperature protection
Operating temperature	Ambient to 40°C
Special feature	Used as water bath or bead bath
Block material	Aluminum alloy
Block type	Standard and customized type are available
Rated voltage	100V-240V
Weight	Approx. 1.3lb (0.6kg)
Blocks	
Block material	Aluminum alloy
Dimension	(WxLxH) 1.85"x2.80"x1.26" (47x71x32mm) or 1.85"x2.80"x2.95" (47x71x75mm)
Block lifter well	Yes
Thermometer well	Yes

Ordering Information

Cat. No.	Product Description
MD-MINI	Mini Heating Dry Bath Incubator; without block

Accessories

Cat. No.	Product Description
MD-MINI-B01	For 0.2ml tube (PCR strip tube), 32 wells, ϕ 6.35mm, depth 19mm, (WxLxH) 47x71x32mm
MD-MINI-B02	For 1.5ml tube, 12 wells, ϕ 10.8mm, depth 28.5mm, (WxLxH) 47x71x32mm
MD-MINI-B03	For 15ml tube, 6 wells, ϕ 17.3mm, depth 70mm, (WxLxH) 47x71x75mm
MD-MINI-B04	For 50ml tube, 2 wells, ϕ 29.2mm, depth 72mm, (WxLxH) 47x71x75mm
MD-MINI-B05	For 0.5ml tube, 12 wells, ϕ 8.0mm, depth 25mm, (WxLxH) 47x71x32mm
MD-MINI-B06	For 2.0ml or 1.5ml tube, 12 wells, ϕ 11.0mm, depth 30mm, (WxLxH) 47x71x32mm
MD-MINI-B07	For 1.5ml tube, 12 wells, ϕ 10.9mm, depth 30mm, (WxLxH) 47x71x32mm
MS-BL95-E	Block Lifter, 95mm length, with E-type retaining rings
MD-MINI-LID	MD-MINI lid, (WxLxH) 83x58.5x31.5mm
MD-MINI-CAR-ADAPTER	Car adapter for MD-MINI and MC-02 series, 1.5M

*For more information please refer to [P104-107](#)



MD-MINI-LID



MD-MINI-CAR-ADAPTER

Mini Cooling Dry Bath Incubator

MC-02 series

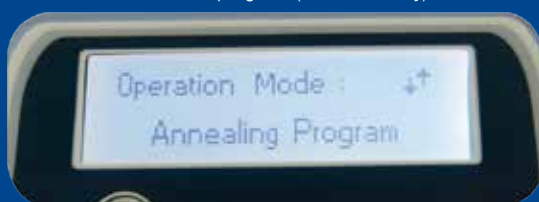
The product line Mini Cooling Dry Bath Incubator is the mini-series of our ultimate dry bath. It is designed to meet the requirement of accurate temperature control, ease of data transferring and programming, small foot print and ease of use. Experience the exceptional heating/cooling rate with quick start feature and the portability to work your sample on the road! Perfect instrument can be used in QC process such as in food industry.



Can be used as a bead bath



Quick start program (MC-0203 only)



Annealing program (MC-0203 only)

Features

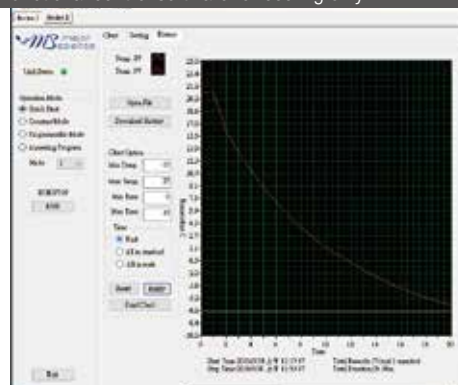
- Small size, fits in your palm
- User temperature calibration
- Single molded chamber, no cracks or welds
- PTFE coated chamber resists stains
- Can be used as a mini water bath or bead bath
- Outstanding heating rate
- Different sizes of aluminum alloy block available for selection
- Clear cover to ensure temperature uniformity
- Quick start program (only MC-0203)
- Annealing program (only MC-0203)
- Optional in car power adaptor provides portability on the road



MC-02 series



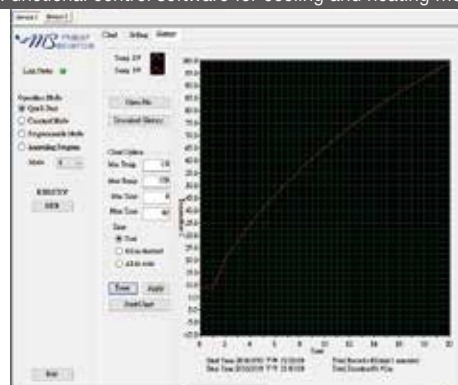
Functional control software for cooling only



MC-0201/ MC-0203

- Temp. set value: -6°C
- Initial temp. value: 20.6°C
- Block type: MD-MINI-B02
- Process time: Approx. 20mins

Functional control software for cooling and heating models



MC-0203

- Temp. set value: 100°C
- Initial temp. value: 9°C
- Block type: MD-MINI-B02
- Process time: Approx. 20mins

with block

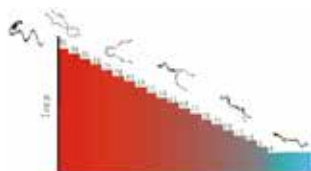


with water



with beads





Annealing Program

Initial Temp.	95.0
Descending Temp.	5.0
Holding Time.	5
Final Temp.	4.0



As a water bath

Specifications

Cat. No.	MC-0201	MC-0203
Display	LCD	
Power	max. 60W	
Dimension	(WxLxH) 5.31"x5.98"x7.28" (135x152x185mm) (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 20°C	30°C below ambient temperature (minimum -10°C) to 100°C
Temperature increment	0.1°C	
Temperature uniformity at 37°C	± 0.2°C	
Temperature accuracy at 37°C	± 0.25°C	
Temperature calibration	Yes	
Heating rate	N/A	Max. 5°C per min
Cooling rate	Max. 4°C per min	
Timer	9999 (min)	
Cooling/ Heating parts	Peltier	Peltier / Heating element
Operation mode	Constant operation: constant temperature (-10°C to 20°C);	Constant operation: constant temperature (-10°C to 100°C);
	N / A	Program operation: 1-4 steps and up to 9 cycles
	N / A	Annealing program
	N / A	Quick start program: 4°C, 16°C, 37°C, 56°C, 95°C pre-set
Safety	Leak proof heating chamber	
Operating temperature	Ambient to 40°C	
Special feature	Can be used as water bath or bead bath incubator	
Block material	Aluminum alloy	
Block type	Standard (MD-MINI) and customization upon request	
PC Connection	USB	
Weight	Approx. 2.9lb (1.3kg)	

Ordering Information

Cat. No.	Product Description
MC-0201	Mini Cooling Dry Bath Incubator, 200 series, cooling only, without block
MC-0203	Mini Cooling Dry Bath Incubator, 200 series, programmable cooling and heating; without block



MD-MINI-LID



MD-MINI-CAR-ADAPTER

Accessories

Cat. No.	Product Description
MC-0200-SW	Functional control software for Mini cooling Incubator series, including a USB cable
MD-MINI-B01	For 0.2ml tube (PCR strip tube), 32 wells, ϕ 6.35mm, depth 19mm, (WxLxH) 47x71x32mm
MD-MINI-B02	For 1.5ml tube, 12 wells, ϕ 10.8mm, depth 28.5mm, (WxLxH) 47x71x32mm
MD-MINI-B03	For 15ml tube, 6 wells, ϕ 17.3mm, depth 70mm, (WxLxH) 47x71x75mm
MD-MINI-B04	For 50ml tube, 2 wells, ϕ 29.2mm, depth 72mm, (WxLxH) 47x71x75mm
MD-MINI-B05	For 0.5ml tube, 12 wells, ϕ 8.0mm, depth 25mm, (WxLxH) 47x71x32mm
MD-MINI-B06	For 2.0ml or 1.5ml tube, 12 wells, ϕ 11.0mm, depth 30mm, (WxLxH) 47x71x32mm
MD-MINI-B07	For 1.5ml tube, 12 wells, ϕ 10.9mm, depth 30mm, (WxLxH) 47x71x32mm
MS-BL95-E	Block Lifter, 95mm length, with E-type retaining rings
MD-MINI-LID	MD-MINI lid, (WxLxH) 83x58.5x31.5mm
MD-MINI-CAR-ADAPTER	Car adapter for MD-MINI and MC-02 series, 1.5M

*For more information please refer to [P104-107](#)

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. The microprocessor controller offers highly accurate temperature control, rapid heating and excellent stability. The temperature can be set in increments of 0.1°C from 5°C above ambient to 150°C. An optional temperature probe is available to place directly in samples. A timer can be set from 1- 999mins. The MD series can be used as a mini water bath or bead bath. Optional Function Control software allows the dry bath incubator to perform real-time data recording through a PC.



Can be used as a water bath

Features

- Digital microprocessor offers precise performance control
- Highly accurate temperature control and broad control range
- Rapid heating rate
- Digital LED display & timer
- User temperature calibration
- Molded aluminum alloy chamber
- Function control software available



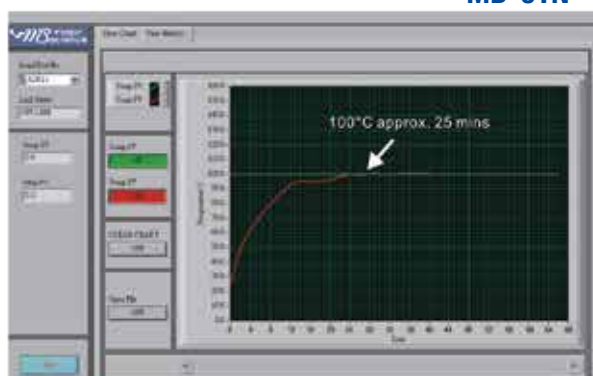
MD-01N



MD-02N

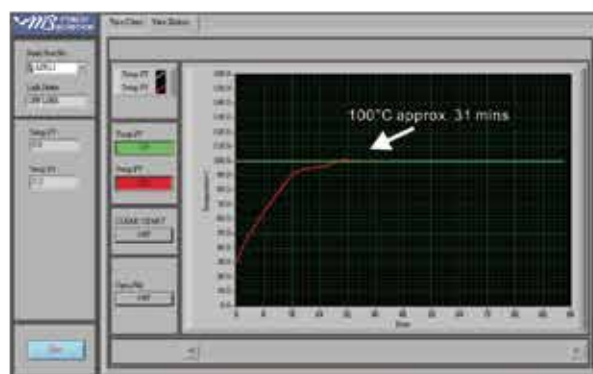


MD-01N



- Temp. set value: 100°C
- Initial temp. value: 25°C
- Block model: MD-B1.5
- Process time: Approx. 25mins

MD-02N



- Temp. set value: 100°C
- Initial temp. value: 30°C
- Block model: MD-B1.5
- Process time: Approx. 31mins

Specifications



with beads



with water



with block



MD-01N / MD-02N
with MD-P01



MD-P01

Cat. No.	MD-01N (Single Block)	MD-02N (Dual Block)
Display	LED	
Power	125W	200W
Dimension	(WxLxH) 7.87"x11.73"x3.15" (200x298x80mm)	
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 at 37°C	±0.2°C	
Temperature accuracy at 37°C	±0.2°C	
Temperature calibration	Yes	
Timer	999 (min) / Continuous	
Safety	Leak proof heating chamber	
	Over temperature protection	
	SSR failure detection	
Operating temperature	Ambient to 40°C	
Special feature	Can be used as water bath or bead bath incubator	
Block material	Aluminum alloy	
Block type	Standard and customized types are available	
PC Connection	RS232	
Rated voltage	110V / 220V	
Weight	Approx. 4.6lb (2.1kg)	Approx. 6.2lb (2.8kg)
Blocks		
Block material	Aluminum alloy	
Dimension	(WxLxH) 3.11"x4.09"x1.97" (79x104x50mm)	
Block lifter well	Yes	
Thermometer well	Yes (except microplate blocks)	

Ordering Information

Cat. No.	Product Description
MD-01N-110/220	Genius Dry Bath Incubator (One block unit); without block
MD-02N-110/220	Genius Dry Bath Incubator (Dual block unit); without block
MD-P01	Thermocouple
MD-RS232	RS 232 cable
MD-PCSW	Function control software package
MD-PCSW-R	Function control software package; including a RS232 cable

Accessories

Cat. No.	Product Description
MD-MP01-S	For microplate; titerplate (Plain Block for Single Block unit only)
MD-MP01-D	For microplate; titerplate (Dual Block unit only)
MD-MP02-S	For 96 wells deep microplate or PCR plate (for Single Block unit only)
MD-MP02-D	For 96 wells deep microplate or PCR plate (for Dual Block unit only)
MD-B0.2	For 0.2ml tube, 64 wells (or 0.2ml PCR strip tube for 8 wells x 8)
MD-B0.5	For 0.5ml tube, 20 wells
MD-B1.5	For 1.5ml tube, 20 wells
MD-B0.5+1.5	Combination: for 0.5ml tube, 12 wells; and for 1.5ml tube, 12 wells (on the same side)
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-B13	Well size 13mm, 20 wells
MD-B17	For 15ml centrifuge tube, 12 wells
MD-B20	Well size 20mm, 12 wells
MD-B25	Well size 25mm, 6 wells
MD-B29	For 50ml centrifuge tube, 4 wells

*For more information please refer to [P104-107](#)

Elite Dry Bath Incubator

EL series

The Elite Dry Bath Incubator comes in single or dual block modes along with a comprehensive set of interchangeable blocks. It is designed for a variety of applications, including restriction digest, denaturing DNA, BUN, melting agar, coagulation studies, hybridization and hot start thermo-cycled reaction. Elite Dry Bath is recognized as the finest, fastest heating and smallest foot print dry bath incubator. In addition, the aluminum blocks can be removed for the use of a mini water bath or a bead bath. The temperature setpoint can be set in increments of 0.1°C from 5°C above ambient to 150°C. Optional PC control software allows the dry bath incubator to perform real time data recording through a PC.



Can be used as a bead bath

Features

- Digital microprocessor controller confers performance and precise control
- Broad temperature control range & guaranteed uniformity
- Excellent heating rate
- Large LCD screen for instant observation
- User temperature calibration
- Can be used as a water bath or bead bath
- Molded aluminum alloy chamber
- Optional PC Control software available

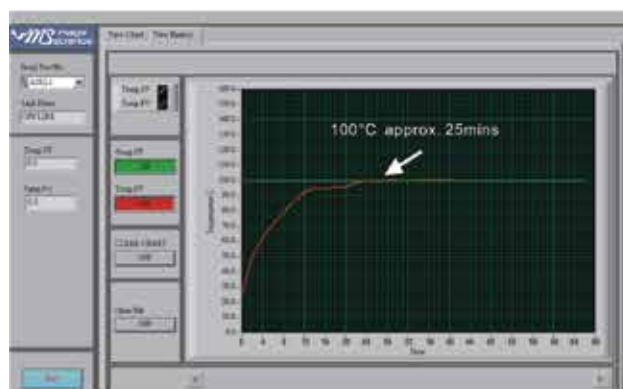


EL-01



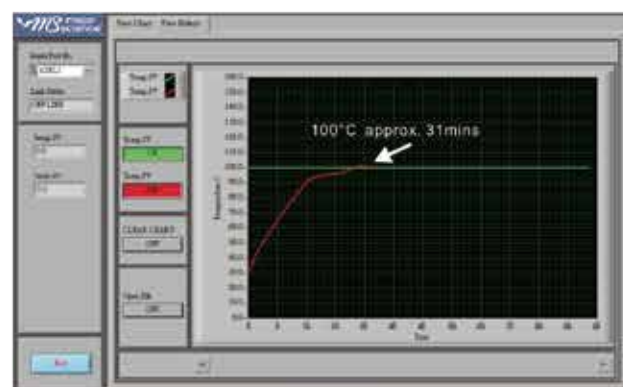
EL-02 **CE**

EL-01



- Temp. set value: 100°C
- Initial temp. value: 25°C
- Block model: MD-B1.5
- Process time: Approx. 25mins

EL-02



- Temp. set value: 100°C
- Initial temp. value: 30°C
- Block model: MD-B1.5
- Process time: Approx. 31mins

Specifications

Cat. No.	EL-01 (Single Block)	EL-02 (Dual Block)
Display	LCD	
Power	125W	200W
Dimension (WxLxH)	5.98"x5.91"x5.31" (152x150x135mm)	5.98"x9.06"x5.31" (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 at 37°C	± 0.2°C	
Temperature accuracy at 37°C	± 0.2°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)
Blocks		
Block material	Aluminum alloy	
Dimension	(WxLxH) 3.11"x4.09"x1.97" (79x104x50mm)	
Block lifter well	Yes	
Thermometer well	Yes (except microplate blocks)	



with beads



with water



with block

Ordering Information

Cat. No.	Product Description
EL-01-110/220	Elite Dry Bath Incubator (One block unit); without block
EL-02-110/220	Elite Dry Bath Incubator (Dual block unit); without block

Accessories

Cat. No.	Product Description
MD-RS232	RS 232 cable
MD-PCSW	Function control software package
MD-PCSW-R	Function control software package; including a RS232 cable
MD-MP01-S	For microplate; titerplate (Plain Block for Single Block unit only)
MD-MP01-D	For microplate; titerplate (Dual Block unit only)
MD-MP02-S	For 96 wells deep microplate or PCR plate (for Single Block unit only)
MD-MP02-D	For 96 wells deep microplate or PCR plate (for Dual Block unit only)
MD-B0.2	For 0.2ml tube, 64 wells (or 0.2ml PCR strip tube for 8 wells x 8)
MD-B0.5	For 0.5ml tube, 20 wells
MD-B1.5	For 1.5ml tube, 20 wells
MD-B0.5+1.5	Combination: for 0.5ml tube, 12 wells; and for 1.5ml tube, 12 wells (on the same side)
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-B13	Well size 13mm, 20 wells
MD-B17	For 15ml centrifuge tube, 12 wells
MD-B20	Well size 20mm, 12 wells
MD-B25	Well size 25mm, 6 wells
MD-B29	For 50ml centrifuge tube, 4 wells

*For more information please refer to [P104-107](#)

Ultimate Dry Bath Incubator

MC-01 series

Two models of Ultimate Dry Bath Incubator are available with different heating and cooling profiles, along with a broad selection of interchangeable blocks. Both models are designed for a variety of applications including ligation, restriction digest, denaturing DNA, BUN, melting agar, coagulation studies, hybridization and hot start thermo-cycled reaction. The built-in 2.6" LCD screen permit instant viewing and selection of operation modes: constant, programmable and annealing. The microprocessor controller offers performance, precise control as well as rapid heating and cooling efficiency with excellent stability. The temperature can be set in 0.1°C increments, from -10°C to 100°C. Optional PC control software is available for real time data logging.



Can be used as a water bath

Features

- Digital microprocessor offers performance and precise control
- Broad temperature control range & guaranteed uniformity
- Highly efficient heating & cooling rates
- Large LCD screen for easy selection of operation modes and setting inputs
- User temperature calibration
- Also a mini water bath and bead bath
- Optional PC control software available

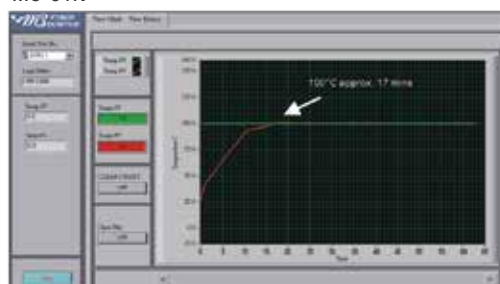


MC-01N

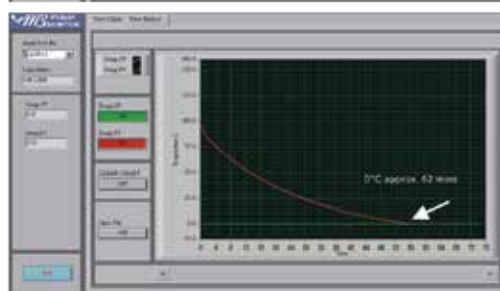
MC-01S



MC-01N

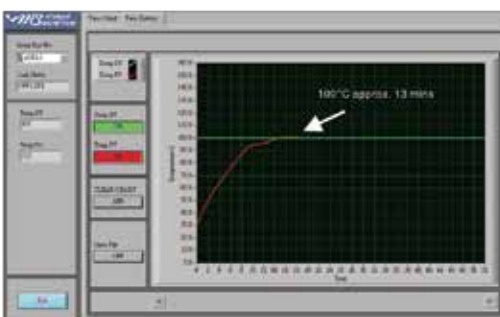


■ Temp. set value: 100°C
■ Initial temp. value: 25°C
Block model: MC-B0.2+0.5+1.5
Process time: Approx. 17mins

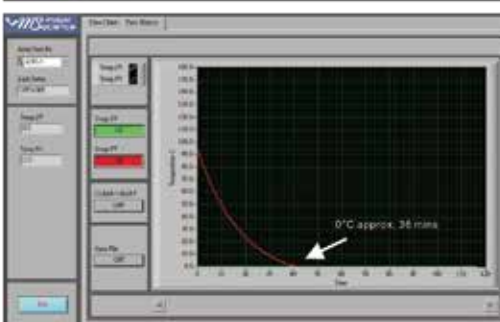


■ Temp. set value: 0°C
■ Initial temp. value: 100°C
Block model: MC-B0.2+0.5+1.5
Process time: Approx. 62mins

MC-01S



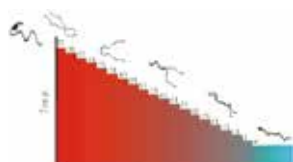
■ Temp. set value: 100°C
■ Initial temp. value: 28°C
Block model: MC-BS0.2+0.5
Process time: Approx. 13mins



■ Temp. set value: 0°C
■ Initial temp. value: 100°C
Block model: MC-BS0.2+0.5
Process time: Approx. 36mins

Ordering Information

Cat. No.	Product Description
MC-01N-110/220	Ultimate Dry Bath Incubator;without block
MC-01S-110/220	Ultimate plus Dry Bath Incubator;without block
MD-RS232	RS 232 cable
MC-PCSW	Function control software package
MC-PCSW-R	Function control software package; including a RS232 cable



Annealing Program

Initial Temp.	95.0
Descending Temp.	5.0
Holding Time.	5
Final Temp.	4.0



with water



with beads



with block

Specifications

Cat. No.	MC-01N	MC-01S
Chamber dimension (WxLxH)	5.11"x3.54"x1.97" (130x90x50mm)	5.11"x3.54"x1.18" (130x90x30mm)
Display	2.6" LCD	
Power	400W	
Dimension	(WxLxH) 7.87"x11.61"x5.51" (200x295x140mm)	
Controller	Digital microprocess controller	
Heating 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 uniformity at 37°C	± 0.2°C	
Temperature accuracy at 37°C	± 0.2°C	
Temperature calibration	Yes	
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	
Safety device	Leak proof heating chamber	
Operating temperature	Ambient to 40°C	
Special feature	Can be 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. 17.6lb (8kg)	
Blocks	Ultimate MC Block	Ultimate plus MC Block
Dimension (WxLxH)	3.54"x5.08"x1.81" (90x129x46mm)	3.54"x5.08"x1.18" (90x129x30mm)
Block material	Aluminum alloy	
Block lifter well	Yes	
Thermometer well	Yes (except microplate blocks)	

Accessories

Cat. No.	Product Description
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)
	One Ultimate Dry Bath Incubator can insert 2ea of half block
MC-B0.5H	(1/2) half block for 0.5ml tube, 15 wells
	One Ultimate Dry Bath Incubator can insert 2ea of half block
MC-B1.5H	(1/2) half block for 1.5 or 2ml tube, 15 wells
	One Ultimate Dry Bath Incubator can insert 2ea of half block
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

*For more information please refer to **P104-107**

Dry Bath Block & Beads

Metallic Thermal Beads Mini Dry Bath Blocks Dry Bath Blocks Ultimate Dry Bath Blocks

For Beads

Major Science offers you the 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. Not only our metallic thermal beads provide you far less conducive to contamination than a water bath when using in a dry bath incubator, the beads are also recyclable which brings you convenience to eliminate the routine use of harmful germicides and are more energy efficient than water. The metallic thermal beads also help to eliminate maintenance tasks such as emptying, cleaning, monitoring, and refilling the water bath to give you a more hassle-free environment in the lab. We specifically pack the beads in a standard pack for your ease of ordering.

For Blocks

The Dry Bath Blocks are designed for the MS Thermoblock Dry Bath Incubator. The precisely machined aluminum alloy blocks deliver efficient heat transfer and are suitable for microplate and various sizes of test tubes and centrifuge tubes ranging from 0.2ml to 50ml. In addition to the standard blocks, customized blocks are also available according to user's requirement.

Features: (for beads)

- Fully compatible with MS Dry Bath Incubators
- Keeps your equipment dry and protected from water-borne microbial contaminants
- Broad temperature range from -80°C to 350°C
- 50% more energy efficient than water bath
- High efficiency to warm, thaw, incubate and chill samples at constant temperatures
- Eliminates the hassle of emptying, cleaning and refilling water baths or changing blocks
- Support all shapes of labwares
- Stays clean and disinfects easily

Features: (for blocks)

- Precisely CNC machined aluminum alloy blocks
- R -curve edged block design
- Through Sand Blast Anodizing Surface treatment, it ensure a nice & smooth surface block with a longer durability
- Laser marked on the selected blocks



beads



Thermal Beads Specifications




Cat. No.	Product Description
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
Weight	3.6lbs per liter
Environment	Recyclable
	Non-toxic, non-vaporizing material
	No daily requirement for biocide use – no gray water
	Improves energy efficiency of standard water baths by over 50%

Ordering Information

Cat. No.	Product Description
MD-MINI-BD00	Metallic thermal beads for Mini dry bath incubator, for MD-MINI, 170g (Beads only)
MD-BD00	Metallic thermal beads for Genius and Elite dry bath incubator, for MD-01N and EL-01, 700g (Beads only)
MC-BD00	Metallic thermal beads for Ultimate dry bath incubator, for MC-01N, 900g (Beads only)

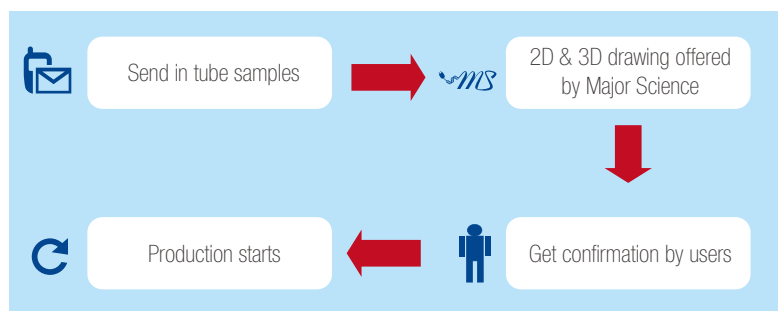
Aluminum alloy blocks

Specifications

Cat. No.	Mini Dry Bath Blocks	Dry Bath Blocks	Ultimate Dry Bath Blocks
Photo			
Used for	MD Mini Page 94 , Mini Cooler Page 96	EL series Page 100 , MD series Page 98	MC-01 series Page 102
Block lifter	included		
Product description	<p>The Mini Dry Bath Blocks are designed for both mini heating or cooling dry bath incubators. The precisely machined aluminum alloy blocks deliver efficient heat transfer and are suitable for PCR tubes in strip and various size of test tubes and centrifuge tubes ranging from 0.2ml to 50ml.</p>	<p>The Dry Bath Blocks are designed for the Elite Dry Bath Incubator and the Genius Dry Bath Incubator. The precisely machined aluminum alloy blocks deliver efficient heat transfer and are suitable for microplate and various size of test tubes and centrifuge tubes ranging from 0.2ml to 50ml.</p>	<p>The Ultimate Dry Bath Blocks are designed for the Ultimate Dry Bath Incubators. The precisely-machined aluminum alloy blocks, which are suitable for microplate and different sizes of test tubes and centrifuge tubes ranging from 0.2ml to 50ml, deliver efficient heating and cooling performance. In addition to the standard blocks, customized blocks are also available to broaden the applications of the Ultimate Dry Bath Incubator. MC Blocks are designed for Ultimate plus Dry Bath Incubator to provide even more efficient heating and cooling speed. Two standard block modes and customized blocks are available.</p>
Block material	Aluminum alloy		
Dimension (WxLxH)	<p>1.85"x2.8"x1.26" (47x71x32mm) for MD-MINI-B01/02/05/06/07</p> <p>1.85"x2.8"x2.95" (47x71x75mm) for MD-MINI-B03/04</p>	<p>3.43"x5.04"x2.45" (87x128x62.3mm) for MD-MP01-S</p> <p>4.09"x6.22"x1.97" (104x158x50mm) for MD-MP01-D/ MD-MP02-D</p> <p>3.43"x4.76"x2.74" (87x120.8x69.5mm) for MD-MP02-S</p> <p>3.11"x4.09"x1.97" (79x104x50mm) for standard blocks</p>	<p>3.5"x5.08"x1.81" (89x129x46mm) for standard blocks</p> <p>2.54"x3.5"x1.81" (64.5x89x46mm) for MC-B0.2H/0.5H/1.5H</p> <p>3.5"x5.08"x1.18" (89x129x30mm) for MC-B0.2+0.5/0.5+1.5</p>
Weight	<p>Approx. 0.5lb (0.24kg) for MD-MINI-B01/02/05/06/07</p>	N/A	
	<p>Approx. 1.0lb (0.46kg) for MD-MINI-B03/04</p>	N/A	
Block lifter well	Yes		
Thermometer well	Yes	Yes (except microplate blocks)	

*Customized blocks available.

Flow chart for customization process:



Laser marked on the selected blocks

Ordering Information

	Cat. No.	Product Description
Mini Dry Bath Blocks	MD-MINI-B01	For 0.2ml tube (PCR strip tube), 32 wells, ø 6.35mm, depth 17mm, (WxLxH) 47x71x32mm
	MD-MINI-B02	For 1.5ml tube, 12 wells, ø 10.88mm, depth 30mm, (WxLxH) 47x71x32mm
	MD-MINI-B03	For 15ml tube, 6 wells, ø 17.3mm, depth 70mm, (WxLxH) 47x71x75mm
	MD-MINI-B04	For 50ml tube, 2 wells, ø 29.0mm, depth 70mm, (WxLxH) 47x71x75mm
	MD-MINI-B05	For 0.5ml tube, 12 wells, ø 7.9mm, depth 25mm, (WxLxH) 47x71x32mm
	MD-MINI-B06	For 2.0ml or 1.5ml tube, 12 wells, ø 11.0mm, depth 30mm, (WxLxH) 47x71x32mm
	MD-MINI-B07	For 2.0ml or 1.5ml tube, 12 wells, ø 11.0mm, 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-MP01-D	For microplate; titerplate (Dual Block unit only)
	MD-MP02-S	For 96 wells deep microplate or PCR plate (for Single Block unit only)
	MD-MP02-D	For 96 wells deep microplate or PCR plate (for Dual Block unit only)
	MD-B0.2	For 0.2ml tube, 64 wells (or 0.2ml PCR strip tube for 8 wells x 8)
	MD-B0.5	For 0.5ml tube, 20 wells
	MD-B1.5	For 1.5ml or 2.0ml tube, 20 wells
	MD-B1.5V	For 1.5 V-shaped tube only, 20 wells
	MD-B0.5+1.5	Combination: for 0.5ml tube, 12 wells; and for 1.5ml tube, 12 wells (on the same side)
	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-B13	Well size 13mm, 20 wells
	MD-B17	For 15ml centrifuge tube, 12 wells
	MD-B20	Well size 20mm, 12 wells
	MD-B25	Well size 25mm, 6 wells
	MD-B29	For 50ml centrifuge tube, 4 wells
	MD-BD01	Single bead MD dry bath block, (WxLxH) 79 x104x76mm
	MD-BD02	Dual bead MD dry bath block, (WxLxH) 104 x158x76mm
	MS-BL95-E	Block Lifter, 95mm length with E-type retaining rings
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)
		One Ultimate Dry Bath Incubator can insert 2ea of half block
	MC-B0.5H	(1/2) half block for 0.5ml tube, 15 wells
		One Ultimate Dry Bath Incubator can insert 2ea of half block
	MC-B1.5H	(1/2) half block for 1.5 or 2ml tube, 15 wells
		One Ultimate Dry Bath Incubator can insert 2ea of half block
	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

Mini Dry Bath Blocks



MD-MINI-B01



MD-MINI-B02



MD-MINI-B03



MD-MINI-B04



MD-MINI-B05



MD-MINI-B06



MD-MINI-B07

Dry Bath Blocks



MD-MP01-S



MD-MP01-D



MD-MP02-S



MD-MP02-D



MD-B0.2



MD-B0.5



MD-B1.5/
MD-B1.5V



MD-B0.5+1.5



MD-B0.5/1.5



MD-B13



MD-B17



MD-B20



MD-B25



MD-29



MD-BD01



MD-BD02

Ultimate Dry Bath Blocks



MC-MP01



MC-MP02



MC-B0.5



MC-B1.5



MC-B0.5+1.5



MC-B0.2
+0.5+1.5



MC-B13



MC-B17



MC-B20



MC-B25



MC-B29



MC-B0.2H



MC-B0.5H



MC-B1.5H



MC-BS0.2+0.5



MC-BS0.5+1.5



MC-BD



MS-BL95-E

MS Hybridization Shaking Oven

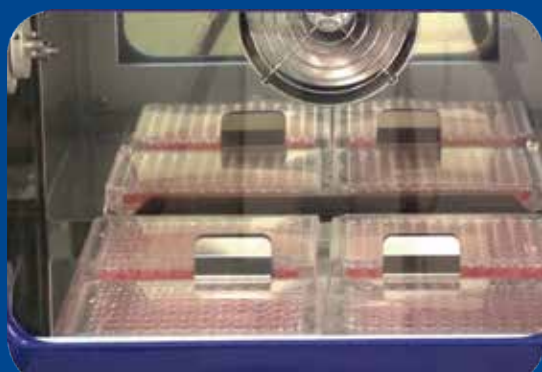
MO-AOR

MO-ARC

MO-AVT

The MS Hybridization Shaking Oven series is the advanced and newly renovated version of MS incubators. It comes with a fashionable front door design and touch screen interface. With excellent temperature accuracy and uniformity, users are able to perform temperature controlled mixing or reaction precisely.

The units are all equipped with built-in rotisserie function and select shaker motions: orbital/reciprocal/vortex. MS Oven series is ideal for nucleic acid hybridization and incubation such as Southern, Northern, and Western blot. Full accessories are also available upon request to meet different applications.



Features

- 3.5" Large display touch screen & graphical control interface
- User temperature calibration
- Broad temperature control range
- Timer with alarm function
- Safety device in the event of system malfunction
- Safety door switch device
- Full accessories available



MO-AOR



MO-ARC



MO-AVT





Stackable design

Specification

Cat. No.	MO-AOR	MO-ARC	MO-AVT
Display	3.5" 64K TFT display		
Controller	32-bits Microprocessor		
Control interface	Touch screen & graphical interface		
Rotisserie function	Yes		
Rotisserie speed / Inc.	5-100rpm / 1rpm		
Timer	9999 (min) with alarm / Continuous		
Shaker motion	Orbital clockwise / counterclockwise	Reciprocal	Vortex motion
Shaker speed	0-200rpm	5-100rpm	50-1500rpm
Temperature control range	Ambient +5°C to 85°C		
Temperature increment	0.1°C		
Temperature uniformity	± 0.2°C at 37°C		
Temperature accuracy	± 0.2°C at 37°C		
User temperature calibration	Yes		
Inner chamber dimensions	(WxLxH) 13.39"x8.86"x10.24" (340x225x260mm)		
Inner chamber volume	Approx. 5.28gal:1 (20L)		
Dimension	(WxLxH) 17.4"x18.19"x17.8" (442x462x452mm)		
Platform	(WxL) 10.63"x7.87" (270x200mm)		
Data logging	RS-232		
Weight	Approx. 63.9lb (29kg)		
Rated voltage	110V / 220V~ 50 / 60Hz (selectable)		
Construction	Painted iron metal with ABS front door		
Safety device	Safety door switch		
	Thermal safety switch		
	Auto shut off upon fan failure		
	Power failure auto recovery		

Ordering Information

Cat. No	Product Description
MO-AOR	MS Hybridization Shaking Oven, Orbital (w/o rotisserie), 110 / 220V
MO-ARC	MS Hybridization Shaking Oven, Reciprocal (w/o rotisserie), 110 / 220V
MO-AVT	MS Hybridization Shaking Oven, Vortex (w/o rotisserie), 110 / 220V

Accessories

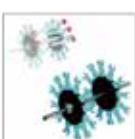
Cat. No	Product Description
MO-HY-8RT	40mm rotisserie for 8 tubes
MO-HY-16RT	50ml conical tube rotisserie for 16 tubes
MO-HY-24RT	15ml conical tube rotisserie for 24 tubes
MO-P2320	Additional 23x20cm platform for orbital and reciprocal shaker (with 4 of 10cm pillars)
MO-FH-125	1x125ml flask holder without platform
MO-FH-250	1x250ml flask holder without platform
MO-FH-500	1x500ml flask holder without platform
MO-FH-125-SET	8x125ml flask holders without platform (only for MO-AOR series / MO-ARC)
MO-FH-250-SET	5x250ml flask holders without platform (only for MO-AOR series / MO-ARC)
MO-FH-500-SET	4x500ml flask holders without platform (only for MO-AOR series/ MO-ARC)
MO-BT40x150	Glass tube 40x150mm (diameter x length)
MO-BT40x200	Glass tube 40x200mm (diameter x length)
MO-BT40x300	Glass tube 40x300mm (diameter x length)



MO-HY-8RT



MO-HY-16RT



MO-HY-24RT



MO-P2320



MO-FH-250-SET



MO-FH-500-SET



MO-BT series

MS Oven

MO-A01

MO-AOR-02

MO-ARK

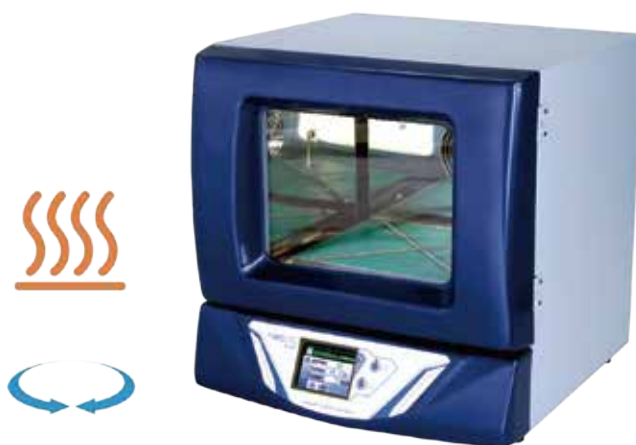
Major Science's Oven incubators feature a broad thermostatic control range and precise temperature uniformity to fulfil a variety of cell culturing and hematology applications. The compact size and stackable designs save valuable lab space and maximize productivity. The build-in color touch-screen provides hassle-free system operation and instant glance over experiments. With implemented safety features, the powerful MS Oven incubators assure a safe environment to the users as well as samples. Moreover, orbital shaking platform and rotisserie module are available in the select models to further save lab space and enhance productivity.



Touch screen & graphical control interface

Features

- Large color touch screen: 3.5" color display
- Touch-screen operation
- Temperature uniformity and accuracy: $\pm 0.2^{\circ}\text{C}$ at 37°C
- Broad temperature control range: ambient $+5^{\circ}\text{C}$ to 85°C
- User temperature calibration
- Timer with alarm function
- Safety door switch, thermal safety switch
- Power failure auto recovery
- Sturdy, stackable construction



MO-AOR-02

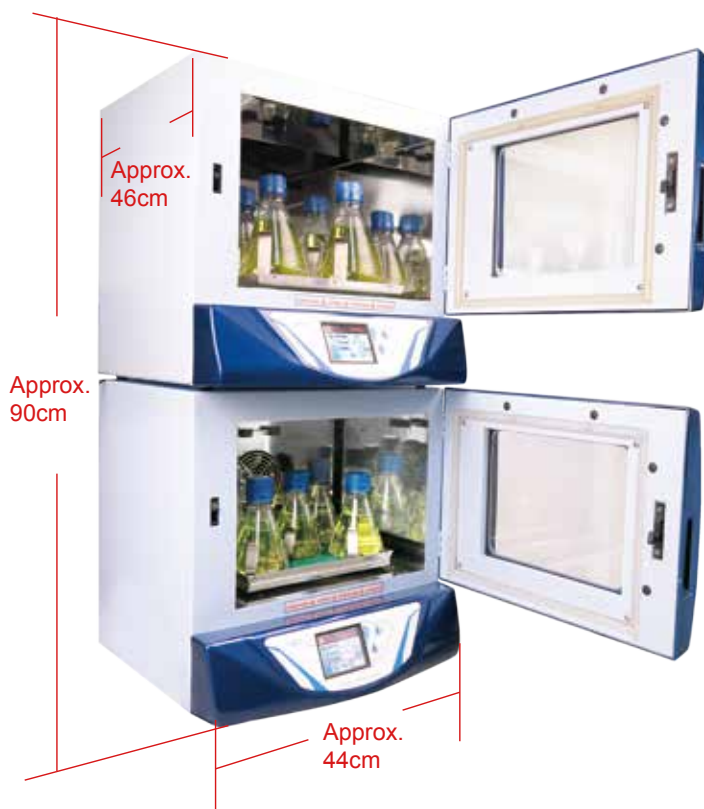


MO-A01

MO-ARK

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

FC CE



Specification

Cat. No.	MO-A01	MO-AOR-02	MO-ARK
Display	3.5" 64K color TFT display		
Controller	32-bits Microprocessor		
Control interface	Touch screen & graphical interface		
Rotisserie function	N/A		Yes
Rotisserie speed / Inc.	N/A		5-100rpm / 1rpm
Timer	9999 (min) with alarm / Continuous		
Shaker motion	N/A	Orbital clockwise / counterclockwise	Rocking*
Shaker speed	N/A	0-200rpm	5-100rpm
Temperature control range	Ambient +5°C to 85°C		
Temperature increment	0.1°C		
Temperature uniformity	± 0.2°C at 37°C		
Temperature accuracy	± 0.2°C at 37°C		
User temperature calibration	Yes		
Inner chamber dimensions	(WxLxH) 13.39"x8.86"x10.24" (340x225x260mm)		
Inner chamber volume	Approx. 5.28gal (20L)		
Dimension	(WxLxH) 17.4"x18.19"x17.8" (442x462x452mm)		
Platform	N/A	(WxL) 10.63"x7.87" (270x200mm)	
Data logging	RS-232		
Weight	Approx. 52.9lb (24kg)	Approx. 55.1lb (25kg)	Approx. 63.9lb (29kg)
Rated voltage	110 / 220V~ 50 / 60Hz (Selectable)		
Construction	Painted iron metal with ABS front door		
Safety device	Safety door switch		
	Thermal safety switch		
	Auto shut off upon fan failure		
	Power failure auto recovery		

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

Ordering Information

Cat. No	Product Description
MO-A01	Hybridization Oven with 2 layers of stainless steel mesh plates and 8 plate holders
MO-AOR-02	MS Orbital Shaking Oven, without rotisserie structure
MO-ARK	MS Hybridization Oven (w/o rotisserie & rocking shaker), 110 / 220V

Accessories

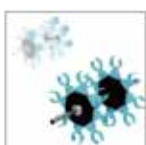
Cat. No	Product Description
MO-01-PF	1 layer of stainless steel mesh plate with 4 plate holders
MO-HY-8RT	40mm rotisserie for 8 tubes
MO-HY-16RT	50ml conical tube rotisserie for 16 tubes
MO-HY-24RT	15ml conical tube rotisserie for 24 tubes
MO-P2320	Additional 23x20cm platform for orbital and reciprocal shaker (with 4 of 10cm pillars)
MO-FH-125	1x125ml flask holder without platform
MO-FH-250	1x250ml flask holder without platform
MO-FH-500	1x500ml flask holder without platform
MO-FH-125-SET	8x125ml flask holders without platform
MO-FH-250-SET	5x250ml flask holders without platform
MO-FH-500-SET	4x500ml flask holders without platform
MO-BT40x150	Glass tube 40x150mm (diameter x length)
MO-BT40x200	Glass tube 40x200mm (diameter x length)
MO-BT40x300	Glass tube 40x300mm (diameter x length)



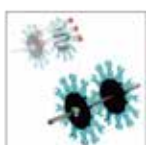
MO-01-PF



MO-HY-8RT



MO-HY-16RT



MO-HY-24RT



MO-SEESAW



MO-P2320



MO-FH-250-SET



MO-FH-500-SET



MO-BT series

MS Shaker

MS-NOR-30 / MS-NOR-3001

MS-NRC-30 / MS-NRC-3001

MS-NRK-30 / MS-NRK-3001

Three different shaking motions of MS Shaker series is provided for many general purpose shaking application in chemical and life sciences laboratories. The Orbital Shaker digitally controls clockwise and/or counter-clockwise orbits to create superb mixing efficiency. The Reciprocal Shaker features a horizontal (left to right) linear action to provide gentle to vigorous shaking motion. The Rocking Shaker provides a "12-degree" tilted angle rocking motion for variety of applications. All three models provides continuous or timed operation with integral electronic timer, LED display, audible signal for automatic switch-off timed control, interchangeable/stacking platforms. Reciprocal shaker can hold up to 15kg of weight whereas rocking and orbital shaker can hold up to 10kg(orbital) and 8kg(rocking), respectively.

For Anti-moisture model

The MS Anti-moisture Shaker series offers the same capabilities as our original MS shaker series with moisture protection coating. The moisture protection allows you to operate the shaker in cold-room or low temperature environment. An anti-moisture coating is applied on the electrical structure to minimize and prevent the forming of condensation when operating in & out of the cold room. Standard features and accessories from the MS shaker series apply to all three different models.



Heavy loading capacity (ex. MS-NRC-30)

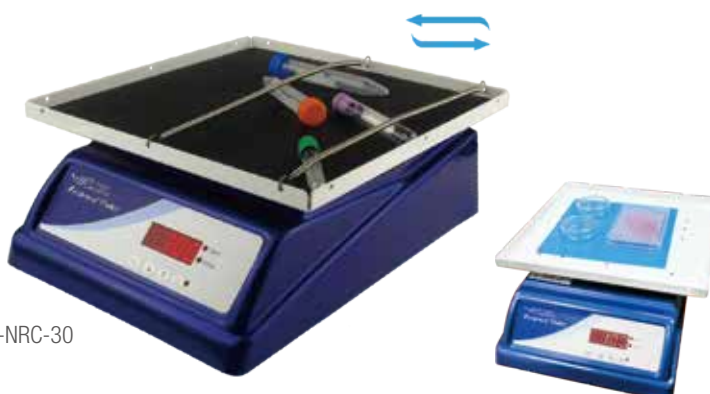
Features

- Continuous one way orbital shaking or two ways clockwise/ counter-clockwise orbital shaking
- Continuous or timed operation with auto shut-off
- Variable shaking speed, up to 200rpm
- Variety of accessories available
- Max. 17.6lb (8kg) loading capacity for MS-NRK-30
- Max. 22.0lb (10kg) loading capacity for MS-NOR-30
- Max. 33lb (15kg) loading capacity for MS-NRC-30
- Special anti-moisture coating allows smooth operation in cold room environment or CO₂ incubation
- Optional 30 x 30 cm platform available for your selection.

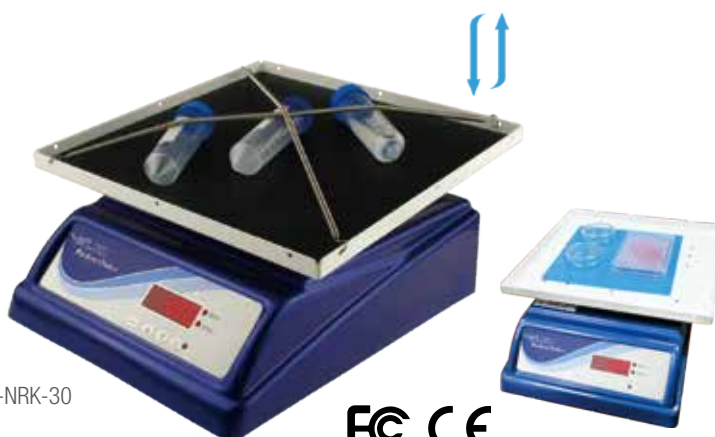
MS-NOR-30



MS-NRC-30



MS-NRK-30



FC CE



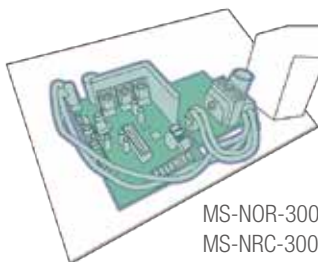
Variety of accessories available



Stacking platform



Maximum tilt angle 12° (MS-NRK-30)



MS-NOR-3001
MS-NRC-3001
MS-NRK-3001

Special coating allows anti-moisture for cold room operation

Platform capability of Flask Holders

Flask	Max. set of flask holder	
	MS-NOR-30	MS-NRC-30 MS-NRK-30
125ml	12	12
250ml	9	9
500ml	5	5
1000ml	4	4
2000ml	1	2

*When operating with second-tier platform, max. loading capacity may change.



MW-SP



MS-P3030



MS-DIMPLED-30



MS-FLAT-30



MO-FH-125



MO-FH-250



MO-FH-500



MO-FH-1000



MO-FH-2000



PPL-04-SI-SI-200-3

Specifications

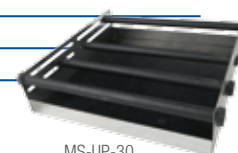
Cat. No.	MS-NOR-30(MS-NOR-3001*)	MS-NRC-30(MS-NRC-3001*)	MS-NRK-30(MS-NRK-3001*)
Motion	Orbital	Reciprocal	Rocking
Moving feature	Orbital action in one direction or two directions	Steady moving motion at 5rpm	
Bi-directional shaking	0.1~10 circle / 0.1 circle	N/A	
Maximum tilt angle	N/A	N/A	12°
Maximum stroke length	20mm	20mm	N/A
Controller	Digital microprocessor controller		
Speed/Inc.	0 ~ 200rpm / 1rpm	5 ~ 100rpm / 1rpm	
Timer	9999 (min) with alarm / Continuous		
Loading capacity	22.0lb (10kg)	33.0lb (15kg)	17.6lb (8kg)
Motor	Stepping motor	DC brushless type	
Operating temperature	Ambient to 40°C		
Platform dimension (WxL)	1.18"x1.18" (30x30cm)		
Platform material	Painted iron metal		
Stacking platform	Yes		
Dimension (WxLxH)	11.81"x12.2"x5.12" (300x310x130mm)		
Material	Flame retardant PC and painted iron metal bottom plates		
Weight	Approx. 15.4lb (7.0kg)		
Rated voltage	110V / 220V (selectable)		

* Anti-moisture coating

Ordering Information

Cat. No.	Product Description
MS-NOR-30	MS Orbital Shaker with 30x30cm platform with flat non-slip rubber mat, 110V / 220V
MS-NOR-3001	MS Orbital Anti-moisture Shaker with 30x30cm platform with flat non-slip rubber mat, 110V / 220V
MS-NOR-30-FH125	MS Orbital Shaker with 12x125ml flask holders
MS-NOR-30-FH250	MS Orbital Shaker with 9x250ml flask holders
MS-NOR-30-FH500	MS Orbital Shaker with 5x500ml flask holders
MS-NOR-30-FH1000	MS Orbital Shaker with 4x1000ml flask holders
MS-NRC-30	MS Reciprocal shaker with 30x30cm platform with flat non-slip rubber mat, 110V / 220V
MS-NRC-3001	MS Reciprocal anti-moisture shaker with 30x30cm platform with flat non-slip rubber mat, 110V/220V
MS-NRC-30-FH125	MS Reciprocal shaker with 12x125ml flask holders
MS-NRC-30-FH250	MS Reciprocal shaker with 9x250ml flask holders
MS-NRC-30-FH500	MS Reciprocal shaker with 5x500ml flask holders
MS-NRC-30-FH1000	MS Reciprocal shaker with 4x1000ml flask holders
MS-NRK-30	MS Rocking shaker with 30x30cm platform with flat non-slip rubber mat, 110V / 220V
MS-NRK-3001	MS Rocking anti-moisture shaker with 30x30cm platform with flat non-slip rubber mat, 110V / 220V
MS-NRK-30-FH125	MS Rocking shaker with 12x125ml flask holders
MS-NRK-30-FH250	MS Rocking shaker with 9x250ml flask holders
MS-NRK-30-FH500	MS Rocking shaker with 5x500ml flask holders
MS-NRK-30-FH1000	MS Rocking shaker with 4x1000ml flask holders
MW-SP	Strip springs (pack of 2), 265mm
MS-P3030	Additional 30x30cm platform with attachable 10cm pillars 8pcs and flat non-slip rubber mat
MS-DIMPLED-30	30x30cm dimpled mat
MS-FLAT-30	Non-slip rubber mat 30x30cm
MO-FH-125	1x125ml flask holder without platform
MO-FH-250	1x250ml flask holder without platform
MO-FH-500	1x500ml flask holder without platform
MO-FH-1000	1x1000ml flask holder without platform
MO-FH-2000	1x2000ml flask holder without platform
PPL-04-SI-SI-200-3	Sticky Pad 20x20cm
MS-UP-30	Universal adjustable platform, 30x30cm (Maximum capacity: 2x2L flasks)

*MS-UP-30 is compatible with MS-NRK, MS-NRC and MS-NOR series.



MS-UP-30

MS Waver Shaker

MW series

Waver Shaker offers optimal movement for the multiple stainings and washings involved in gel, blotting, microscopy and immunostaining applications. Its combination of vertical and horizontal orbital motion provides more rapid exchange of solvents and greater mixing efficiency.

Hybridization Water Bath is offered along with the Waver Shaker for wet hybridization, and it is even used as a shaking water bath. It is a digital controlled instrument equipped with a RS-232 port for data logging. It provides the temperature uniformity which hybridization processes requires.



Adjustable platform angle

Features

- Continuous or timed operation with automatic shut-off mechanism
- Variable shaking speed from 5 to 100rpm for mixing and washing action
- Two shaking movements in 2D or 3D
- Adjustable platform angle
- Interchangeable/stacking platform and extendable shelves available
- 33.0lb (15kg) loading capacity
- LED display for easy reading
- 4 digits red LED display
- High quality DC brushless motor
- Easy expandable shelf installation



MW-23

FC CE



MW-WB

Hybridization Water Bath

CE



MW-23-FH250



MW-23-FH500

Platform capability of Flask Holders

Flask	Maxi set of flask holder
125ml	9 / *12
250ml	9
500ml	9
1000ml	1 / *5

*Customized Specification

Specification



MW-SP



MW-P3333



MW-DIMPLED



MW-FLAT



MW-SL



MO-FH-125



MO-FH-250



MO-FH-500



MO-FH-1000



PPL-04-SI-SI-200-3

Cat. No.	MW-23
Motion	Orbital and Nutation(2D or 3D)
Controller	Digital microprocessor controller
Speed/Inc.	5 ~ 100rpm / 1rpm
Maximum tilt angle	8°
Timer	9999 (min) with alarm / Continuous
Loading capacity	33.0lb (15kg)
Motor	DC brushless type
Operating temperature	Ambient to 40°C
Platform dimension (WxL)	1.3"x1.3" (33x33cm)
Platform material	Painted iron alloy
Dimension (WxLxH)	12.99"x17.72"x11.02" (330x450x280mm)
Material	Painted iron metal
Weight	Approx. 22.0lb (10kg)
Rated voltage	110V / 220V (selectable)

Cat. No.	MW-WB
Display	4 Digital LED
Controller	Digital microprocessor controller
Bath temperature	Ambient to 95°C
Timer	9999 (min) with alarm / Continuous
Bath tank material	304 stainless steel
Bath inner dimensions (WxLxH)	9.45"x10.63"x1.97" (240x270x50mm)
Bath capability	Approx. 0.74gal (2.8L)
Operating temperature	Ambient to 40°C
Dimension (WxLxH)	11.81"x11.81"x11.42" (300x300x290mm)
Material	Painted iron metal
Lid material	Transparent acrylic material assembled with stainless steel construction
Data log	RS232
Weight	Approx. 15.4lb (7.0kg)
Rated voltage	110V / 220V

Ordering Information

Cat. No.	Product Description
MW-23	MS Waver Shaker with flat non-slip rubber mat, 110V / 220V
MW-23-FH250	MS Waver Shaker with 9x250ml flask holders
MW-23-FH500	MS Waver Shaker with 9x500ml flask holders
MW-WB-110/220	Hybridization Water Bath
MW-23-WB-110/220	MS Waver Shaker and Hybridization Water Bath
MW-SP	Strip springs (pack of 2), 265mm
MW-P3333	Additional 33x33cm platform with flat non-slip rubber mat (with 8 of attachable 10cm or 20cm pillars)
MW-DIMPLED	33x33cm dimpled mat
MW-FLAT	33x33cm non-slip rubber mat
MW-SL	Supporting leg (pack of 4)
MO-FH-125	1x125ml flask holder without platform
MO-FH-250	1x250ml flask holder without platform
MO-FH-500	1x500ml flask holder without platform
MO-FH-1000	1x1000ml flask holder without platform
PPL-04-SI-SI-200-3	Sticky Pad 20x20cm



Adjustable platform angle for 3D movement.

10L / 20L Stirring Water Bath

SWB series

The MS Stirring Water Bath series packed with built-in thermostatic baths is an innovative product line to provide precise temperature control and excellent mixing performance for a wide range of laboratory applications. The built-in stirring mechanism not only provides outstanding temperature uniformity, but also applies a stirring mixture function. The 10L or 20L stainless steel tank can operate flask(s) containing a moderate amount of solution simultaneously. Two single stirring mechanism models and two multi-stirring models are available for your preference.



Built-in magnetic stirring mechanism

Features

- Microprocessor control with digital performance for precise, accurate control
- Built-in magnetic stirring mechanism for water agitation, water temperature uniformity and medium solution mixing
- Stirring speed control
- LCD screen 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
- Data Logging software available

SWB-10L



Max. capability: 6 sets of 250ml flasks
4 sets of 500ml flasks

SWB-20L



Max. capability: 15 sets of 250ml flasks
8 sets of 500ml flasks





Concave lid design allows condensation flow back to the tank.



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



Water circulation function

- Magnetic agitator
- Stir bar

Specifications

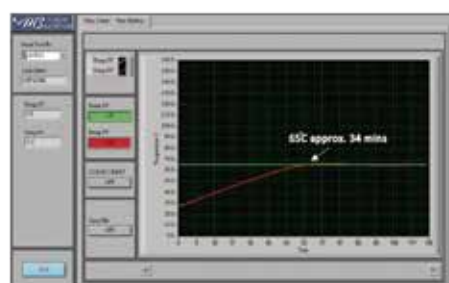
Cat. No.	SWB-10L-1	SWB-10L-2	SWB-20L-1	SWB-20L-3
Number of stirring mechanisms	1	2	1	3
Stirring speed	400-1500rpm (measured by percentage)			
Bath capacity	Approx. 2.64gal (10L)		Approx. 5.28gal (20L)	
Water circulation function	Yes			
Display	LCD			
Heating power	600W		800W	
Controller	Digital microprocessor controller			
Bath temperature	5 °C above ambient to 99 °C			
Temperature increment	0.1°C			
Temperature accuracy	+/- 0.2 °C at 37 °C			
Temperature calibration	Yes			
Timer	99 (hr): 59 (min) / Continuous			
Safety device	Warning indication on screen with alarm and automatic shut down			
Operating temperature	Ambient to 40 °C			
Bath Tank material	304 stainless steel			
Bath Inner dimension (WxLxH)	9.45"x11.81"x5.91" (240x300x150mm)		11.81"x19.69"x5.91" (300x500x150mm)	
Dimension (WxLxH)	10.04"x13.98"x9.45" (255x355x240mm) (without lid)		12.99"x21.26"x9.45" (330x540x240mm) (without lid)	
Rear drainage port	N / A		Yes	
Material	Painted iron metal			
Lid material	Polycarbonate with stainless steel handle			
Communication port	RS232			
Weight	Approx. 19.8lb (9kg)		Approx. 30.9lb (14kg)	
Rated voltage	110V / 220V			

Ordering Information

Cat. No.	Product Description
SWB-10L-1-110 / 220	10L Stirring Water Bath with 1 built-in stirring mechanism, lid included
SWB-10L-2-110 / 220	10L Stirring Water Bath with 2 built-in stirring mechanism, lid included
SWB-20L-1-110 / 220	20L Stirring Water Bath with 1 built-in stirring mechanism, lid included
SWB-20L-3-110 / 220	20L Stirring Water Bath with 3 built-in stirring mechanism, lid included

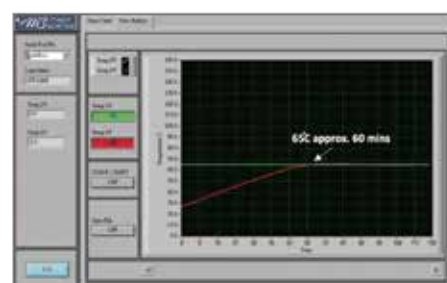
Accessories

Cat. No.	Product Description
SWB-LID10	Transparent lid for 10L Stirring Water Bath
SWB-LID20	Transparent lid for 20L Stirring Water Bath
SWB-RS232	RS 232 cable for data logging
SWB-DLSW	Data Logging software package
SWB-DLSW-R	Data Logging software package, include a RS 232 cable



SWB-10L series

■ Temp. set value : 65 °C
■ Initial temp. value : 17 °C
 Water volume : 5 liters
 Process time : Approx. 34mins



SWB-20L series

■ Temp. set value : 65 °C
■ Initial temp. value : 27 °C
 Water volume : 12 liters
 Process time : Approx. 60mins



Peristaltic Pump

The MS Peristaltic Pump series offers several digitally-controlled versions of the peristaltic pump for a variety of applications, which provide high accuracy of rpm performance. The MU-D series is the single pump head version, controlled by a microprocessor. The MFU series features a dual or tetrad pump heads, which perfectly fulfill high-volume demands with multi-tubing purposes.

Peristaltic Pump

Peristaltic Pump

120-121

- ❖ Digital Peristaltic Pump
- ❖ Dual and Tetrad Peristaltic Pump

*All images are for reference only, actual products might differ from the images.
*Please visit our website at www.majorsci.com for more product selection and detailed information.
*Technical specification subject to change without notice.



Digital Peristaltic Pump

MU-D series / MFU series

For MU-D series

MU-D Peristaltic Pump series is ideal for a variety of applications, which include filtration, circulation, sampling, chemical spraying, dispensing, transferring, feeding and filling. The easy-to-use pump head design accommodate several different silicon tubing sizes. This provides a great flexibility for a wide range of flow rates to be utilized when connecting with different sizes of tubings.

The MU-D series is also reversible providing better convenience and flexibility to the user. The digital control provides high accurate rpm performance.

MU-D01 pump is a digital controlled mode with a solid 50W brushless motor, and MU-D02 is designed with a higher horsepower, 100W for higher volume demands required.

MU-D03 pump is the most powerful pump in this series which packs with powerful pump head, allows the flow rate to up to 3.3 litre/min with thicker tubing (1.6mm).

Select the appropriate model for your lab with economical yet powerful enough peristaltic pump.

For MFU series

The Dual and Tetrad Peristaltic Pump are equipped with two and four peristaltic pumps respectively, and can be controlled separately. Digital microprocessor provides precise speed control; individual timer and alarm function are equipped with all standard pumps. The Dual and Tetrad Peristaltic Pump can be used for various applications such as filtration, circulation, sampling, chemical spraying, dispensing transferring, feeding and filling. The easy-to-use pump head design is also conveniently reversible for purging, allowing further flexibility in any experiment.

Features:(for MU-D series)

- Digital microprocessor control for precise speed control
- 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 for MU-D01
- Flow rate range from 0.3 to 2,280ml/min for MU-D02
- Flow rate range from 0.8 to 3,300ml/min for MU-D03
- 2-step programmable operation mode available

Features:(for MFU series)

- Compact size provides high portability
- Precise digital control for individual pump head
- High quality Verderflex Easy Load pump head
- Two or four pump head models available
- Allow individual control for each pump head
- Wide applications
- Reversible for purging purposes usage
- 2-step programmable operation mode available
- Expandable pump head for wider range of applications



MU-D01/MU-D02

MU-D03



Easy load pump head



Expandable pump head



MFU-01



MFU-02



Easy load pump head



Specifications

Cat. No	MU-D01	MU-D02	MU-D03	MFU-01	MFU-02
Controller	Digital microprocessor controller				
Motor	Brushless motor			Stepping motor	
Power	50W	100W			
Pump speed increment	20 - 300rpm / 1rpm	5 - 600rpm / 1rpm	20 - 300rpm /1rpm	Approx. 1 - 100rpm / 1rpm	
Max. pump speed	300rpm	600rpm	300rpm	Approx. 100rpm	
Variable flow rate	1.2 - 1,140ml/min	0.3 - 2,280ml/min	0.8 - 3,300ml/min	0.6 - 380ml/min	
Number of rollers	3		2	3	
Number of peristaltic Pumps	1(max. 2)		1	2	4
Operating temperature	Ambient to 40 °C				
Dimension (WxLxH)	7.87"x13.39"x5.12" (200x340x130mm)		9.45"x13.39"x 6.69" (240x340x170mm)	10.43"x13.39"x7.09" (265x340x180mm)	
Construction	Painted iron metal				
Weight	Approx. 12.5lb (5.7kg)		Approx. 13.4lb (6.2kg)	Approx. 12.6lb (5.7kg)	
Rated voltage	110V/220V	100V-240V	100V-240V	110V-240V	
Program	2-step Program (running & ceasing); Max. of timer: 99 (hr) : 59 (min) : 59 (sec)				

Ordering Information







Cat. No	Product Description
MU-D01	Digital Peristaltic Pump, 110 / 220V
MU-D02	Superior Digital Peristaltic Pump, 100V-240V
MU-D03	Supreme Digital Peristaltic Pump, 100V-240V

Cat. No	Product Description
MFU-01	Dual Peristaltic Pump
MFU-02	Tetrad Peristaltic pump
PWI-FS-01-00000000	Digital Peristaltic Pump connection cable for FS-01/02
PWI-FS-05-00000000	Digital Peristaltic Pump connection cable for FS-05
PWI-FS-06-00000000	Digital Peristaltic Pump connection cable for FS-06, FS-07

Accessories

Cat. No	Product Description
MU-PU1	Easy Load pump head for MU-D01 / MU-D02
MU-S13	Silicon tube I.D. 0.03 inch (0.8mm), 25ft
MU-S14	Silicon tube I.D. 0.06 inch (1.6mm), 25ft
MU-S16	Silicon tube I.D. 0.12 inch (3.1mm), 25ft
MU-S25	Silicon tube I.D. 0.19 inch (4.8mm), 25ft
MU-S17	Silicon tube I.D. 0.25 inch (6.4mm), 25ft
MU-S18	Silicon tube I.D. 0.31 inch (7.9mm), 25ft

Tubing Order 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
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)	



*Dual Pump Head available accommodate two silicon tubings with the same pump speed at the same time.

*To achieve maximum performance for MU-D03, please use tube size ID from 0.5mm to 8.0mm.



Thermostirrer

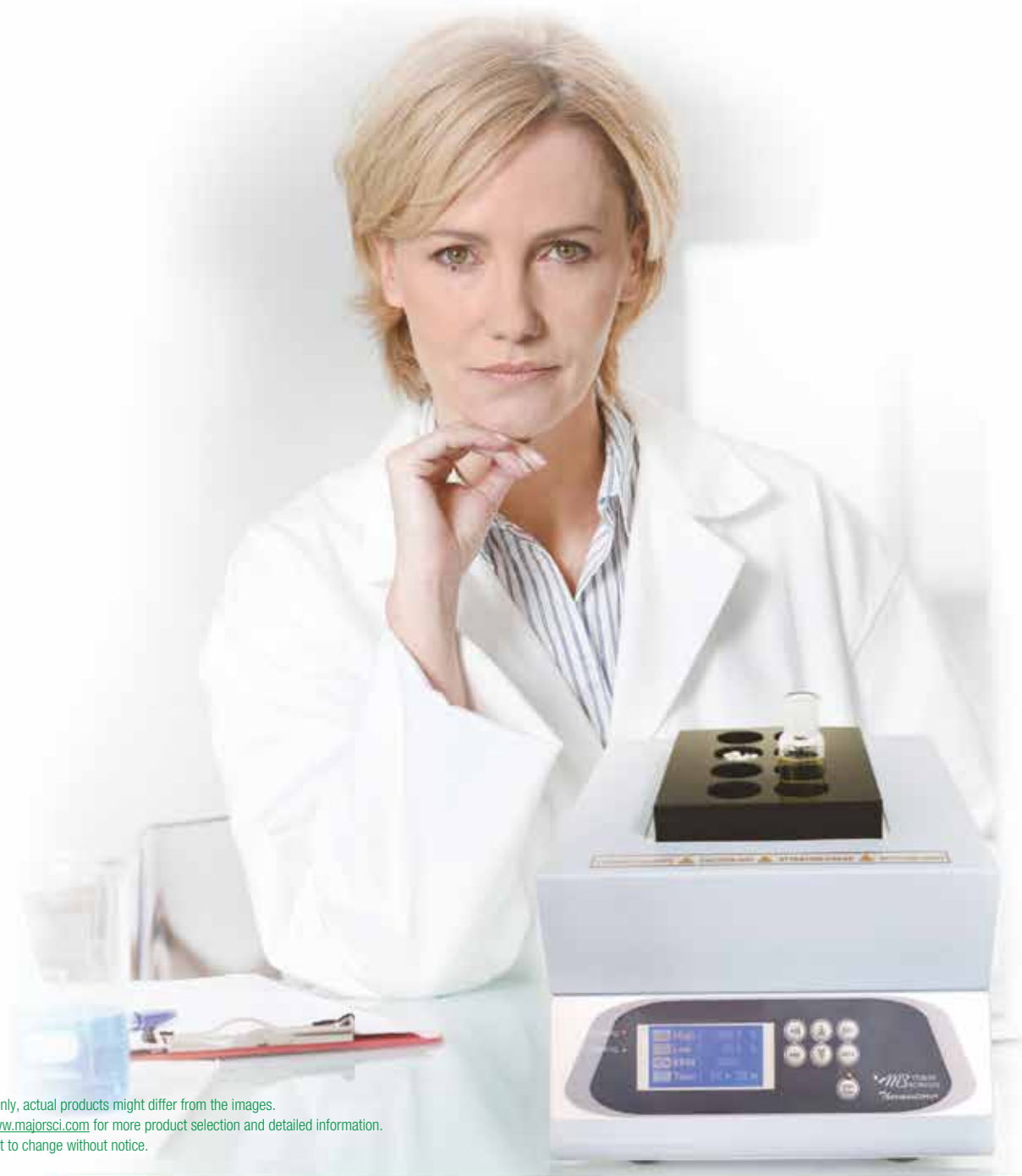
The Major Science Thermostirrer is equipped with built-in stirrers on the bottom of each well. Combined with excellent temperature control, the instrument is well-suited for a variety of applications, including synthesis of chemical compounds, denaturation, derivatization, combinatorial chemistry, sample concentration, enzyme assays and process optimization.

Thermostirrer

Thermostirrer

124-125

- ❖ Thermostirrer
- ❖ Remote Thermostirrer Module



*All images are for reference only, actual products might differ from the images.

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

*Technical specification subject to change without notice.

Thermostirrer

TS-8W / CM-M0512-001

Major Science Thermostirrers feature leading-edge speed performance and the broadest temperature control range to cover a variety of chemical and biological applications including synthesis of organic compounds, derivatization, drug solubility, protein crystallization and process optimization. Mixing efficiency is maintained uniformly across the sample wells due to independent magnets under each well and thus ensures consistency of experimental results. Furthermore, Major Science designed a remote thermostirrer module for studies that require a thermostatic mixer to function as a part of an automated process such as a polymer viscometers.

The Remote Thermostirrer Module allows you to set your own program with modbus PC connection and integrate with your own manufacture equipment. For more information with this module, please contact Major Science.



Functional control software package available

Features

- Microprocessor control with digital performance
- Brushless motor for individual well agitation
- Outstanding temp. control performance up to 200°C
- User temperature calibration
- Customization available
- Well-insulation around casework
- Over temperature protection
- LCD screen & timer (standalone model only)
- Highest stirring speed, 3500 rpm in the market



CE

TS-8W



User temperature calibration



Cooling System Connection Port



CE

CM-M0512-001
Remote Thermostirrer Module



Specifications

Cat. No.	TS-8W-110	TS-8W-220	CM-M0512-001
Controller	Digital microprocessor controller		
Display	2.6" LCD monochrome display		Remote
Motor	Brushless motor		
Number of position	8 wells (2x4) with individual magnetic stirrer or customized		6 wells with individual magnetic stirrer **
Well diameter	Ø29.5mm, 62mm depth **		Ø23mm, 44mm depth **
Stirring speed	500 - 3500rpm		500 - 2500 rpm
Temperature control range	5°C above ambient to 200°C		
Temperature increment	± 0.1°C		
Temperature uniformity	± 0.7°C @ 150°C		N/A *
Temperature accuracy	± 0.2°C @ 150°C		± 0.5°C @ 120°C
Temperature calibration	Yes		
Operating temperature	Ambient to 40°C		
Timer	99 (hr): 59 (min) / Continuous		
Block material	PTFE coating with individual magnetic		Anodic treatment without PTFE coating **
Data logging	RS 232 (Max. 2.5meter long)		
Safety	Insulated wells around casework		
	Leakage proof for heating chamber		
	Over Temperature protection		
Rated voltage	110V~; 50/60Hz	220V~; 50/60Hz	110V~ or 220V~; 50/60Hz
Dimension (WxLxH)	8.97"x11.7"x6.24" (230x300x160mm)		5.16"x11.68"x6.19" (132.5x299.5x158.9mm)
Weight	Approx. 18.74lb (8.5kg)		Approx. 11.05lb (5kg)
Power rating	110V for 6.3A	220V for 3.15A	110V for 6.3A 220V for 3.15A
Power	600W		
Vessel diameter	Max. 28.5mm or customized **		Max. 22mm **
Communication port	RS-232		Modbus RTU by RS-232

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

** Customized Specification.

Ordering Information

Cat. No.	Product Description
TS-8W-110	Thermostirrer 8wells, 110V
TS-8W-220	Thermostirrer 8wells, 220V
CM-M0512-001	Remote Thermostirrer Module 6wells, 220V~ / 110V~

Accessories

Cat. No.	Product Description
TS-8W-SW	Functional control and data logging software for Thermostirrer series. Including software CD and cable.



Innovative Life Sciences Tools

**US Office**

19959 Sea Gull Way
Saratoga, CA 95070 U.S.A.
T/ +1-408-366-9866
F/ +1-408-446-1107

Taiwan Office

No. 37, Wuquan 5th Road, Wugu Dist.,
New Taipei City 24888, Taiwan
T/ +886-2-2298-1055
F/ +886-2-2299-7871

India Office

No.12-13-104, St. No.3, Lane No.1,
Tarnaka, Secunderabad - 500017
Telengana, India
T/ +91-40-27001515
F/ +91-40-27001515