



Thermostat System with Air Lifter Vessel

All about Winpact Fermentation and Cell Cultivation System

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

Winpact 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, colorful 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 is equipped with a full connection device to connect to any PC for real-time recording and control within the vessel.





Our Guarantees to You



Serving our customers. We care about what you care about and we are dedicated to gaining your confidence. Major Science uses our best efforts to provide for 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 break new ground 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 customer customers' feedback in order to ensure the best quality of products and services from the placing of your order to its delivery.

Staying green. As a company with multiple distributors selling our products to various parts of the world, we take on the corporate social responsibility of being a good global citizen in ensuring the protection of our environment.

User-friendly instruments. Even in the complicated world of biotechnology, Major Science can still offer equipment that is straightforward and convenient to operate. We provide touch-screen, colorful interface whenever possible and all applications are easy to navigate.

INNOVATIVE CULTIVATION SOLUTIONS



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Fermentation and Cell Cultivation Systems

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Accessory Items

Standard Accessory Items

- 18 pH Probe
- 19 DO Probe
- 20 Temperature Probe
- 21 Antifoam Probe

22 Brushless Motor

23 Impeller

Optional Accessory Items

24 ORP Probe

25 External Pump

26 O₂ Enrichment Module

27 Consumable Parts



Major Science Company Introduction

Who we are

Winpact is a product brand under Major Science, an innovative, R&D-based manufacturer supplying a broad product portfolio to the life sciences market. 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 numerous laboratories. Headquartered in Saratoga, California, Major Science provides products and services to biotechnology companies, academic institutions and government research labs across the world.

Major Science is consistently delivering cutting-edge instruments for the bioindustry that cover nearly all of your laboratory needs. Our products are divided into either general instruments or fermentation systems. Major Science's general instruments include electrophoresis system, gel documentation system, thermoblock reactor, stirring water bath, shaker, incubator, and peristaltic pump. For cell cultivation solutions, the Winpact product family offers a range of fermentation systems and includes many of the most widely applied bench top-sized instruments for the life sciences.

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 or download the corporate brochure from our website.

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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 fermentation and cell cultivation product lines.

2005 Built up global awareness.

2008 Founded branch offices overseas.

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 subjects of life sciences to provide an effective source of instrumentation.

Fermentation & Cell Cultivation Technology – cell culture, fermentation engineering

Electrophoresis System – nucleic acid and protein separation equipment

Gel Documentation System – gel imaging systems and quantification software

Stirring Water Bath – water baths with stirring and mixing mechanism with remote-control and real-time recording

Shaker – Digital 2D and 3D mixing instruments

MS Oven – A compact series of oven equipped with different shaking platforms, including rotisserie, orbital, rocking, reciprocal and vortex optional functions

Thermoblock Reactor – enzymatic reaction and temperature control with software, remote-control and real-time recording

Peristaltic Pump – various digital peristaltic pumps

Our Mission

Major Science is devoted to creating life sciences research instruments of the best quality and innovation. Our mission is to deliver integrated solutions to our customers and distribution partners through collaborative teamwork, thoughtful innovation, practical efficiency and outstanding service.

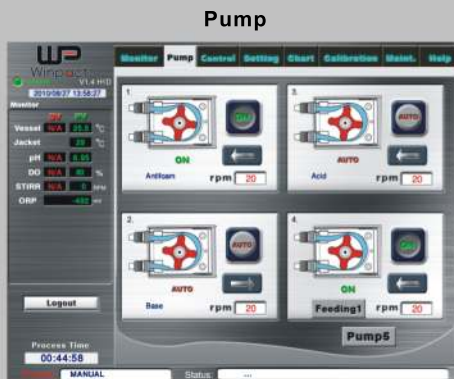
Our Goals

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 at wider applications of our products.

Creating innovative cell cultivation solutions is among one of our highest priorities. We will be adding to our fermentation system/bioreactor line vessels that are smaller in size, as well as bigger, pilot and production scale vessels. Along the same line, 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 optional devices that can be integrated with current systems. These include various vessel types and parts, accessories, and sub-systems. We will also embed the use of disposable systems that function with plastic instead of glass vessels.



Controller Layout



Controls the peristaltic pump speed and direction



Performs manual or automatic control of each parameter



Sets up a schedule for the automatic process



ABS Flame Retard Front Panel

10.4" Touch Screen

Power Switch

Air Flow Rotameter

NEW

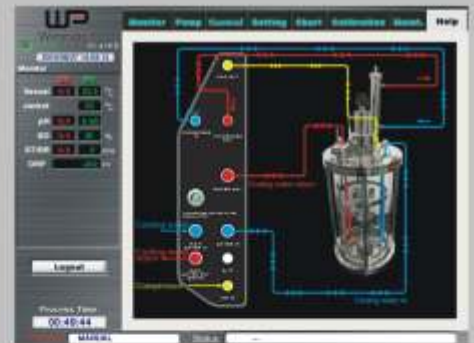
Features

- Colorful touch screen & graphical user interface
- Ethernet remote control function
- Flexible optional device selections
- Two types of temperature control system: Thermostat & Dry-heating
- Storage program: Up to 59,994 programs for different kind of conditions
- Log data storage: Up to 10 process monitoring data files
- Data export interface: USB port
- Quick connectors for easy operation



- Ethernet remote control
- No additional software required

Help



Provides information for operation

Chart



Records the trend of a fermentation process

Calibration







Performs sensor calibration

Maintenance



For service and maintenance

	Thermostat System (FS-01)		
	Double Jacketed Dish Bottom Vessel	Single Wall Dish Bottom Vessel	Air Lifter Vessel
	FS-V-A series	FS-V-B series	FS-V-C series
			
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 ○ Well ✗ Not Recommended



Dry Heating System (FS-02)

Single Wall Dish Bottom Vessel with Heating Blanket

Single Wall Plain Bottom Vessel with Heating Base Unit

FS-V-B series

FS-V-D series



	Dry Heating System (FS-02)	
	Single Wall Dish Bottom Vessel with Heating Blanket FS-V-B series	Single Wall Plain Bottom Vessel with Heating Base Unit FS-V-D series
Mammalian Cell Culture	○	○
Aerobic Microorganism Culture (Note 1)	✱	✱
Micro-aerobic Microorganism Culture (Note 2)	✱	✱
Anaerobic Microorganism Culture (Note 3)	✱	✱
Fragile Cell Culture (Note 4)	○	X
Photosynthesis Cell Culture (Note 5)	X	○
Plant Cell Culture	✱	X
Insect Cell Culture	○	X

Note:

1. Some Bacteria; Yeast; Fungi
2. Facultative culture for example, some Lactobacillus; for ethanol production
3. Same as note 2
4. This vessel is excellent for some cells are so fragile and easy shear by any type of mechanical impeller
5. Plant; Algae; Cyanobacteria (blue-green algae)

Thermostat System

Our FS-01 controller can operate with three types of vessel: double jacketed dish bottom vessel, single wall dish bottom vessel, and air lifter vessels. You can find the different monitor interfaces below.



FS-01

FS-V-A series



Double jacketed dish bottom vessel

FS-V-B series



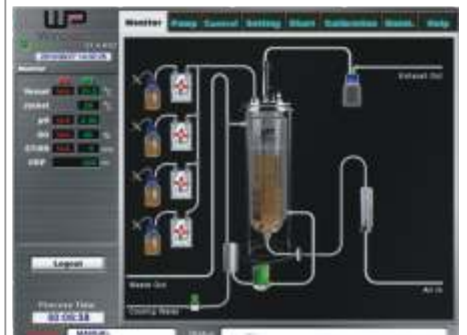
Single wall dish bottom vessel

FS-V-C series



Double jacketed air lifter vessel

Single wall air lifter vessel



Dry Heating System

Our FS-02 controller can operate with two types of vessel: single wall dish bottom vessel with heating blanket, and single wall plain bottom vessel with heating base unit. You can find the different monitor interfaces below.



FS-02

FS-V-B series



Single wall dish bottom vessel with heating blanket



FS-V-D series



Single wall plain bottom vessel with heating base unit



