

INNOVATIVE CULTIVATION SOLUTIONS



1L Double Jacketed Dish
Bottom Vessel



1L Single Wall Dish
Bottom Vessel



Winpact One System

Winpact One Fermentation System

Controller Specifications

Control unit	Control panel	8" Color Touch-screen Interface		
	Communication port	Remote software control through Ethernet, up to 16 systems via PC software RS-485 port for system extension		
	Program Storage	Up to 59,994 programs		
	Data storage	Up to 100 process monitoring data files		
	Cabinet material	ABS front panel and painted iron housing		
	Dimension	Footprint: W x D = 9.84" x 20.08" (250mm x 510mm); Height: 19.69" (500mm)		
	Rated voltage	110V / 220V ; 50/60 Hz		
Aeration	Inlet Gas Flow-meter	0.5 - 5 LPM (1L)	0, 1 - 10 LPM (3,5 L)	0, 2 - 20 LPM (7, 10L)
	Sparger	Orifice ring		
	Baffle	Removable 316L stainless steel baffles		
Temperature	Heating	1. Thermostat: Built-in heat exchanger (400W heater, water circulation pump) 2. Dry heating		
	Cooling	Cooling coil and solenoid valve		
	Range	5°C (41°F) above coolant up to 60°C (140°F)		
	Probe	Platinum RTD probe (Pt 100), non-autoclavable		
	Control mode	Manual or Programmable 15 steps PID control		
Agitation	Drive	Removable top brushless motor		
	Speed Range	a. For extremely shear-sensitive cell line: 30-300 rpm b. For fermentation and cell cultivation: 30 - 1200 rpm (1-7L) 30 - 1000 rpm (10L)		
	Impeller	2 impellers for 1 L vessel and 3 impellers for 3 L and above Note: Customized impellers are available		
	Resolution	1 rpm increment		
	Control mode	Manual or Programmable 15 steps PID control		
pH	Range	2 -14 pH		
	Resolution	0.01 pH		
	Probe	Gel-filled electrode; Autoclavable		
	Control mode	Manual/ Acid start/ programmable 15 steps PID control, pH stat		
DO	Range	0 – 200%		
	Resolution	0.10%		
	Probe	Polarographic DO sensor; Autoclavable		
	Control mode	2-stage DO cascade response: (Manual or Process mode)		
		a. Increase or decrease agitation speed b. Oxygen Enrichment module(Optional) c. Gas Mixing Station module(Optional) Substrate feeding strategy		
ORP (optional for anaerobic condition)	Transmitter	-/+ 2000 mV		
	Resolution	1 mV		
	Probe	Gel-filled electrode; Autoclavable		
Foam	Probe	316L stainless steel detector with insulated PTFE tube; On/Off control, autoclavable, adjustable sensitivity control		
Peristaltic pump	Pump number	3 x built-in Watson Marlow ; 1x external pump (MU-D series required, optional)		
	Motor type	Precise stepping motor; minimum speed is 1 rpm		
	Speed range	0 – 65 rpm		
	Resolution	1 rpm		
	Control mode	Manual or Programmable 15 steps feeding control; pump can be assigned for Acid, Base, Antifoam and Substrate; flow rate & total volume calculation		
Exhaust	Device type	316L Stainless steel condenser		

Winpact One Fermentation System (FS-06 series)

USB port for easy data transfer

Special Features:

- Entry-level fermentation system
- Duo system, thermostat and dry heating combined in one
- Linux based system for stable and virus proof operation
- Extreme compact in size: W250 x H500 x D510 mm
- Compatible with any vessel types up to 10 liter
- Economic model for budget saving lab
- Connects up to 16 systems through remote software
- Customizable gas flow and mixing options
- Adjustable flow rate and speed for all 3 peristaltic pumps
- External pump option available
- Easy ordering package



Compatible with any vessel types up to 10 liter.

8" colored touch-screen

easy-push power switch



3 x assignable & adjustable peristaltic pumps

Adjustable air & O₂ flow meter

*Subjects in picture are not up to scale.

Ordering Information

Cat. No.	Product Description
FS-06-110/220	Winpact One Fermentation System Controller, 110V/220V
FS-06-A01P-110/220	Complete Winpact One Fermentation System for 1L Double Jacketed Vessel, 110V/220V
FS-06-A03P-110/220	Complete Winpact One Fermentation System for 3L Double Jacketed Vessel, 110V/220V
FS-06-A05P-110/220	Complete Winpact One Fermentation System for 5L Double Jacketed Vessel, 110V/220V
FS-06-A07P-110/220	Complete Winpact One Fermentation System for 7L Double Jacketed Vessel, 110V/220V
FS-06-A10P-110/220	Complete Winpact One Fermentation System for 10L Double Jacketed Vessel, 110V/220V
FS-06-B01P-110/220	Complete Winpact One Fermentation System for 1L Single Wall Dish Bottom Vessel, 110V/220V
FS-06-B03P-110/220	Complete Winpact One Fermentation System for 3L Single Wall Dish Bottom Vessel, 110V/220V
FS-06-B05P-110/220	Complete Winpact One Fermentation System for 5L Single Wall Dish Bottom Vessel, 110V/220V
FS-06-B07P-110/220	Complete Winpact One Fermentation System for 7L Single Wall Dish Bottom Vessel, 110V/220V
FS-06-B10P-110/220	Complete Winpact One Fermentation System for 10L Single Wall Dish Bottom Vessel, 110V/220V
FS-06-C053P-110/220	Complete Winpact One Fermentation System for 5L Single Wall Air Lifter Vessel, 110V/220V
FS-06-C054P-110/220	Complete Winpact One Fermentation System for 5L Double Jacketed Air Lifter Vessel, 110V/220V
FS-06-D01P-110/220	Complete Winpact One Fermentation System for 1L Single Wall Plain bottom Vessel, 110V/220V
FS-06-D03P-110/220	Complete Winpact One Fermentation System for 3L Single Wall Plain bottom Vessel, 110V/220V
FS-06-D05P-110/220	Complete Winpact One Fermentation System for 5L Single Wall Plain bottom Vessel, 110V/220V
FS-06-D07P-110/220	Complete Winpact One Fermentation System for 7L Single Wall Plain bottom Vessel, 110V/220V
FS-06-D10P-110/220	Complete Winpact One Fermentation System for 10L Single Wall Plain bottom Vessel, 110V/220V

Winpact Controller Selection Guide

Model	FS-01	FS-02	FS-05	FS-06
Product name	Thermostat System	Dry Heating System	Parallel System	One System
Working volume range	500ml - 10L	500ml- 20L	500ml - 20L	500ml - 10L
Glass vessels, autoclavable	yes	yes	yes	yes
Interchangeable vessels	yes, three types only	yes, two types only	yes, all types	yes, all types
Number of vessels controlled per controller	1	1	2	1
Number of vessels controlled via remote software	over 100	over 100	max 16	max 16
Touchscreen controller	yes, 10.4"	yes, 10.4"	yes, 10.4"	yes, 8"
Number of peristaltic pumps	4	4	8	3
Gas mixing options	yes	yes	yes	yes
Oxygen enrichment	yes	yes	yes	yes
Mass flow controller	yes	yes	yes	no
Off gas analysis	yes	yes	yes	no
ORP probe	yes	yes	yes	yes
Lighting module	yes	yes	yes	no
External pump	yes, multiple	yes, multiple	yes, multiple	yes, 1
Mobile SMS module	yes	yes	yes	no



FS-01



FS-02



FS-05



FS-06



www.majorsci.com
info@majorsci.com

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 - 500 017
Andhra Pradesh, India
T/ +91-40-27001586
F/ +91-40-27001586