

INO BIO Series



INO-05F



INO-07F



INO-10L ~ 50 L

1 Features

- These fermentation package, featuring bioreactor, include everything you need to get fermentation process started such parameter as DO, pH, temperature and foam - no need to spend the selecting components
- The working volume are available 3L, 5L & 7L for cell culture or microbial, including bacteria, yeast, insect, fungi and plant cells

2 Specifications

Mode	Model	INO-05F	INO-07F
Capacity	Total vol.	5 liter	7 liter
	Working vol.	3 liter	5 liter
Vessel	Pressure	Max. 2 Kg/cm <sup>2</sup> / Operation : 1.5 Kg/cm <sup>2</sup>	
	Material	Pyrex glass + Stainless steel	
Temperature	Range	25 to 50 °C ±0.1 °C	
	Control	Digital temp.controller + PT sensor	
pH	Range	2 to 12 pH	
	Control	Digital pH controller + pH electrode	
DO	Range	0 to 20 ppm (0 to 100%)	
	Control	Digital DO controller + Polarographic	
Agitation	Speed	0 to 1000 rpm	
	Drive	AC motor 60W + 2 x Impeller	
	Control	Speed controller	
Aeration	Flow rate	0.5 to 5 NI/min	
	Sterilizing	130 °C / 160min	
	Filter	99.9% efficiency PTFE filter element	
Anti-foam	System	Micro tubing pump	
	Control	Foam sensor + pyrex glass bottle	
Control	System	8 channel On-line monitoring system	
	Display	Graphic LCD display	
	Output	RS232 & Printer	
Utility	Comp. air	2 Kg/cm <sup>2</sup> , 10L/min	
	Electric power	220VAC, 50/60Hz	
Overall	(WxDxH)	720x650x660(mm) / 150 Kg	

1.1 Vessel

- Material : Pyrex tube glass(single wall) & Top & Bottom plate(SS316L)

1.2 Aeration unit

- Sterilizing temperature : 125 °C for 60min
- Material of element : PTFE
- Filtration efficiency : 99.9%

2.1 Agitated speed control system

- Agitation speed is indicated & controlled by frequency inverter
- 220VAC, 50/60Hz, 0.37 Kw, 50 - 800 rpm

2.2 Temperature control system

- Digital temperature indicating controller : Up to +50 °C

2.3 pH control system

- Digital pH indicating controller with 4 digits display
- Measuring range : pH 2.00 - 12.00 ±0.05

2.4 Dissolved oxygen measuring system

- Digital DO indicating controller with 4 digits display
- Measuring range : 0.00 - 20.00 ppm or 0.0 - 100.0%

2.5 Anti-foam control system

- Digital anti-foam controller with 4 digits display
- Measuring range : 0 - 999.9 count

2.6 PC monitoring system

- Hardware interface & software
- PC monitoring software