

AUTOCLAVABLE BIOREACTOR



Autoclavable Bioreactor LAB-A series

LAB-A series of Autoclavable Bioreactor is a single vessel type, benchtop laboratory fermentor offering a volume of 0.5 litres, 1.5 litres, 3 litres, 5 litres, 7 litres, 10 litres. It has been specially designed to serve biotechnological and pharmaceutical research and development.

Features

- Suitable for high density, continuous fermentation
- Automatic fermentation process from start to end
- High resolution, built-in colour touch screen
- Displays temperature, pH, DO, motor speed & peristaltic pump status simultaneously
- Precise control of pH, DO & dead band value of the peristaltic pump
- Easy calibration of pH, DO & foam sensors using graphic calibration mode
- Controllable motor speed via DO mode
- RS-232C interface and wireless communication protocol
- Pt-100 temperature sensor
- PID controlled temperature, pH and DO

Application

Labtron Autoclavable Bioreactor LAB-A Series finds application in:

- Microbiology
- Tissue culturing
- Biotechnology
- Pharmaceutical industry



Specification

Model		LAB-A10	LAB-A11	LAB-A12	LAB-A13	LAB-A14	LAB-A15
Vessel	Total Volume	0.5 Litres	1.5 Litres	3 Litres	5 Litres	7 Litres	10 Litres
	Type	Single Vessel					
Agitation	Drive	Top drive motor (mechanical drive)					
	Indication	Monolithic LCD display					
	Range	50-1,200 rpm					
	Impellers	2-Rushton turbine impeller, 1-foam breaker					
Temperature Range		Ambient+3°C to 80°C					
Aeration	Gas System	2 or 4 gas mixer					
	Gas Inlet	Ring Sparger with 0.2 µm air filter cartridge					
Exhaust	Filter and Condenser	0.2 µm air filter, SUS 316 Condenser					
pH	Sensor	Gel electrode					
	Range	2.0-12.0 pH of set point					
DO	Sensor	Polarographic electrode					
	Range	0-200%					
Antifoam	Sensor	Conductivity electrode					
Peristaltic Pump	Control	4 constant speed pumps, one each for acid, base, foam and feed					
Power		60 W / 150 W					
Power Supply		220V, 50/60Hz					

Autoclavable Bioreactor LAB-B series

LAB-B10 series of Autoclavable Bioreactor is a double vessel type, compact, laboratory fermentor/bioreactor system with capacity of 1.5 litres, 3 litres, 5 litres, 7 litres suitable for a wide range of research, education and industrial applications.

Features

- Automatic fermentation process from start to end
- Suitable for high density, continuous fermentation
- High resolution, built-in colour touch screen
- Displays temperature, pH, DO, motor speed & peristaltic pump status simultaneously
- Precise control of pH, DO & dead band value of the peristaltic pump
- Easy calibration of pH, DO & foam sensors using graphic calibration mode
- Controllable motor speed via DO mode
- RS-232C interface and wireless communication protocol
- Pt-100 temperature sensor
- PID controlled temperature, pH and DO

Application

Labtron Autoclavable Bioreactor LAB-B Series finds application in:

- Microbiology
- Tissue culturing
- Biotechnology
- Pharmaceutical industry



Specification

Model		LAB-B10	LAB-B11	LAB-B12	LAB-B13
Vessel	Total Volume	1.5 Litres	3 Litres	5 Litres	7 Litres
	Type	Double			
Agitation	Drive	Top drive motor (mechanical drive)			
	Indication	Monolithic LCD display			
	Range	50-1,200 rpm			
	Impellers	2-Rushton turbine impeller, 1-foam breaker			
Temperature Range		Ambient+3°C to 80°C			
Aeration	Gas System	2 or 4 gas mixer			
	Gas Inlet	Ring Sparger with 0.2 μ m air filter cartridge			
Exhaust	Filter and Condenser	0.2 μ m air filter, SUS 316 Condenser			
pH	Sensor	Gel electrode			
	Range	2.0-12.0 pH of set point			
DO	Sensor	Polarographic electrode			
	Range	0-200%			
Antifoam	Sensor	Conductivity electrode			
Peristaltic Pump	Control	4 constant speed pumps, one each for acid, base, foam and feed			
Power		60 W			
Power Supply		220V, 50/60Hz			

Autoclavable Bioreactor LAB-C series

LAB-C series of Autoclavable Bioreactor is a single vessel type fermentor with two channel main controller that has a capacity of 0.5 litres, 1.5 litres, 3 litres, 5 litres, 7 litres, 10 litres which can be used either as a standalone bioreactor or a multiple bioreactor system. It is capable of combining two bioreactors into a single system.

Features

- Automatic fermentation control from start to end
- Easy to set up the feeding program
- Suitable for high density and continuous fermentation
- High resolution with built in colour touch screen
- Displays temperature, pH, DO, motor speed & peristaltic pump status simultaneously
- Precise control of pH, DO, motor speed & dead band value of the peristaltic pump
- Easy calibration of pH, DO & foam sensors using graphic calibration mode
- Programmable multi stage operation for pH, DO, foam, temperature, etc.
- Controllable motor speed via DO mode
- RS-232 interface and wireless communication protocol
- Pt-100 temperature sensor
- PID controlled temperature, pH and DO

Application

Labtron Autoclavable Bioreactor LAB-C Series finds application in:

- Microbiology
- Tissue culturing
- Biotechnology
- Pharmaceutical industry



Specification

Model		LAB-C10	LAB-C11	LAB-C12	LAB-C13	LAB-C14	LAB-C15
Vessel	Total Volume	0.5 Litres	1.5 Litres	3 Litres	5 Litres	7 Litres	10 Litres
	Type	2 Single Vessels					
Agitation	Drive	Top drive motor (mechanical drive)					
	Indication	Monolithic LCD display					
	Range	50-1,200 rpm					
	Impellers	2-Rushton turbine impeller, 2-foam breaker					
Temperature Range		Ambient+3°C to 80°C					
Aeration	Gas System	2 or 4 gas mixer					
	Gas Inlet	2 Ring Sparger with 0.2 μ m air filter cartridge					
Exhaust	Filter and Condenser	0.2 μ m air filter, SUS 316 Condenser					
pH	Sensor	2 Gel electrode					
	Range	2.0-12.0 pH of set point					
DO	Sensor	2 Polarographic electrode					
	Range	0-200% $\pm$ 0.1					
Antifoam	Sensor	2 Conductivity electrode					
Peristaltic Pump	Control	4 constant speed pumps, one each for acid, base, foam and feed					
Power		60 W / 150 W					
Power Supply		220V, 50/60Hz					

Autoclavable Bioreactor LAB-D series

Autoclavable Bioreactor LAB-C10 is a single vessel type fermentor with two channel main controller that has a capacity of 0.5 litres, 1.5 litres, 3 litres, 5 litres, 7 litres, 10 litres, which can be used either as a standalone bioreactor or a multiple bioreactor system. It is capable of combining two bioreactors into a single system.

Features

- Automatic fermentation control from start to end
- Easy to set up the feeding program
- Suitable for high density and continuous fermentation
- High resolution with built in colour touch screen
- Displays temperature, pH, DO, motor speed & peristaltic pump status simultaneously
- Precise control of pH, DO, motor speed & dead band value of the peristaltic pump
- Easy calibration of pH, DO & foam sensors using graphic calibration mode
- Programmable multi stage operation for pH, DO, foam, temperature, etc.
- Controllable motor speed via DO mode
- RS-232 interface and wireless communication protocol
- Pt-100 temperature sensor
- PID controlled temperature, pH and DO

Application

Labtron Autoclavable Bioreactor LAB-D Series finds application in:

- Microbiology
- Tissue culturing
- Biotechnology
- Pharmaceutical industry
- Biochemical engineering



Specification

Model		LAB-D10	LAB-D11	LAB-D12	LAB-D13	LAB-D14	LAB-D15
Vessel	Total Volume	0.5 Litres	1.5 Litres	3 Litres	5 Litres	7 Litres	10 Litres
	Type	4 Single Vessels					
Agitation	Drive	Top drive motor (mechanical drive)					
	Indication	Monolithic LCD display					
	Range	50-1,200 rpm					
	Impellers	4-Rushton turbine impeller, 4-foam breaker					
Temperature Range		Ambient+3°C to 80°C					
Aeration	Gas System	2 or 4 gas mixer					
	Gas Inlet	4 Ring Sparger with 0.2 μ m air filter cartridge					
Exhaust	Filter and Condenser	0.2 μ m air filter, SUS 316 Condenser					
pH	Sensor	4 Gel electrode					
	Range	2.0-12.0 pH of set point					
DO	Sensor	4 Polarographic electrode					
	Range	0-200% $\pm$ 0.1					
Antifoam	Sensor	4 Conductivity electrode					
Peristaltic Pump	Control	4 constant speed pumps, one each for acid, base, foam and feed					
Power		60 W / 150 W					
Power Supply		220V, 50/60Hz					

Autoclavable Bioreactor LAB-E series

Autoclavable Bioreactor LAB-E10 is a six channelled, single vessel type fermentor with a capacity of 0.5 litres, 1.5 litres, 3 litres, 5 litres, 7 litres, 10 litres, which can be used either as a separate bioreactor or a multiple bioreactor system. It is capable of combining a maximum of six bioreactors into a single system.

Features

- It consists of the main controller, display, 4 peristaltic pumps, pH/ DO/ foam/ temperature sensor, transmitter and ports, heating and agitation units
- Automatic control of the fermentation process
- High resolution with built-in colour touch screen
- Easy to set up the feeding program
- Suitable for high density and continuous fermentation
- Displays temperature, pH, DO, motor speed & peristaltic pump status simultaneously
- Precise control of pH, DO, motor speed & dead band value of the peristaltic pump
- Easy calibration of pH, DO & foam sensors using graphic calibration mode
- Programmable multi stage operation for pH, DO, foam, temperature, etc.
- Controllable motor speed via DO mode
- RS-232 interface and wireless communication protocol
- Pt-100 temperature sensor
- PID controller for controlling temperature, pH and DO

Application

Labtron Autoclavable Bioreactor LAB-E Series finds application in:

- Microbial Culture
- Cell Culture
- Biotechnology



Specification

Model		LAB-E10	LAB-E11	LAB-E12	LAB-E13	LAB-14	LAB-E15
Vessel	Total Volume	0.5 Litres	1.5 Litres	3 Litres	5 Litres	7 Litres	10 Litres
	Type	6 Single Vessels					
Agitation	Drive	Top drive motor (mechanical drive)					
	Indication	Monolithic LCD display					
	Range	50-1,200 rpm					
	Impellers	6-Rushton turbine impeller, 4-foam breaker					
Temperature Range		Ambient+3°C to 80°C					
Aeration	Gas System	2 or 4 gas mixer					
	Gas Inlet	6 Ring Sparger with 0.2 µm air filter cartridge					
Exhaust	Filter and Condenser	0.2 µm air filter, SUS 316 Condenser					
pH	Sensor	6 Gel electrode					
	Range	2.0-12.0 pH of set point					
DO	Sensor	6 Polarographic electrode					
	Range	0-200% ±0.1					
Antifoam	Sensor	6 Conductivity electrode					
Peristaltic Pump	Control	6 constant speed pumps, one each for acid, base, foam and feed					
Power		60 W / 150 W					
Power Supply		220V, 50/60Hz					



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