



**CO<sub>2</sub>**

INCUBATOR

Shaker





## CO<sub>2</sub> INCUBATOR SHAKER LCIS-100 SERIES

Labocon CO<sub>2</sub> Incubator Shaker LCIS-100 Series ensures a stable environment for cell and tissue culture applications. It has an advantage of conducting both shaking culture and general culture synchronically as incubation in different conditions can be carried out in the same incubator.



### FEATURES

- Chamber bottom is mounted with roller apparatus or shaker
- Easy to clean rounded corners
- Microprocessor PID controller
- Individual 2 channel touch button operating panel
- Controlled operation at external control panel
- Simultaneous conduction of adherent and suspension cell culture
- Six-sides heating chamber keeps temperature uniformity in the chamber and reduces potential condensation as well as ensure the precise control of temperature
- Warm air ensures faster temperature recovery and minimal heat loss
- Maintenance-free insulated dry wall
- Circulation system delivers air and moisture convection
- Fast and precise detection of CO<sub>2</sub> gas through dual beam IR CO<sub>2</sub> sensor
- Natural humidification using water tray
- Rust resistant and contamination-free perforated shelves
- Optional:
  - 100ml Flask Holder x 16 with Platform
  - 250ml Flask Holder x 9 with Platform
  - 500ml Flask Holder x 5 with Platform
  - 1000ml Flask Holder x 4 with Platform
  - Spring Rack with Platform

### APPLICATION

Labocon CO<sub>2</sub> Incubator Shaker is suitable for use in research and production of microorganisms, cells, tissue and bacteria cultivation, immunology, oncology, genetics and biological engineering.

✓ SPECIFICATION

Model		LCIS-101	LCIS-102
Capacity		179 L	179 L
Temp. Range		Ambient+5°C to 60°C	
Temp. Accuracy		±0.1°C at 37°C	
Temp. Increment		0.1°C	
Co <sub>2</sub> Range		0% to 20%	
Co <sub>2</sub> Accuracy		±0.1 % at 5% at 37°C	
CO <sub>2</sub> Sensor		IR CO <sub>2</sub> sensor	
Co <sub>2</sub> Control		Microprocessor Digital	
Speed		Roller apparatus	Shaker
Speed Range		0.1 rpm to 5 rpm	30 rpm to 300 rpm
Speed Accuracy		±0.1%	0 rpm to 100 rpm
Speed Increment		0.1 rpm	1 rpm
Timer Range		∞ or up to 999hr	∞ or up to 48 hours
Display		5 digit LED x 3	5 digit LED x 3
Jacket Type		Dry Wall Type (6 side IR heat)	
Chamber Material		Stainless Steel SUS 304	
Door	Inner	Tempered Safety Glass Door	
	Outer	Silicon Packing Magnet Door	
Chamber Dimension		473x528x710 mm	473x528x710 mm
Overall Dimension		560x 665x 945 mm	560x 665x 945 mm
Power		600 W	550 W
Power Supply		220 V, 60 Hz	
Weight (Net/Gross)		89 kg	70 kg
Catalog No.		9341124362	9341125362



## CO<sub>2</sub> INCUBATOR SHAKER LCIS-200 SERIES

Labocon CO<sub>2</sub> Incubator Shaker LCIS-200 Series features microprocessor controller and is equipped with durable and removable shakers providing an optimal solution for cell culture suspension. An outstanding air circulation system ensures excellent temperature uniformity and humidity with faster temperature recovery and minimal heat loss.

### ✔ FEATURES

#### For Model LCIS-201

- Equipped with built-in-two detachable mini shakers on 2 shelves
- Simultaneous conduction of adherent and suspension cell culture
- Maintenance-free insulated dry wall
- Microprocessor PID controller
- Dual Beam Infra-Red Sensor is used to maintain control of CO<sub>2</sub> density
- Temperature, humidity and RPM can be viewed on the LED Display
- All six sides are directly heated and combined with P. I. D control to ensure that temperature is reached quickly and uniformity maintained. Further the system combines forced air and natural convection to maintain the best temperature uniformity
- Circulation system delivers air and moisture convection
- Built-in-shaker is run by low noise, low particle or heat occurrence, vibration-free plate BLDC Magnetic Induction Drive
- Natural humidification using water tray
- Optional:
  - 100ml Flask
  - 250ml Flask
  - 500ml Flask
  - 1000ml Flask
  - Tube Rack
  - 96 well Microplate Rack
  - Sticky mat and non-slip rubber pad

#### For Model LCIS-202 and LDCI-203

- Internal chamber is subdivided into 3 compartments each holding a removable orbital shaker which can hold Erlenmeyer, cylindrical flasks or deepwell blocks
- Simultaneous conduction of adherent and suspension cell culture
- Maintenance-free insulated dry wall
- HEPA filter, located post circulation fan, traps microbes and helps to maintain a sterile environment
- Combination of forced and natural air circulation system
- Shaker controlled by an external control panel
- Dual Beam Infra-Red Sensor is used to maintain control of CO<sub>2</sub> density
- Temperature, humidity and RPM can be viewed on the LED Display
- UV lamp sited next to the circulation fan works to sterilize the air in the incubator even during cell culturing
- All six sides are directly heated and combined with P. I. D control to ensure that temperature is reached quickly and uniformity maintained. Further the system combines forced air and natural convection to maintain the best temperature uniformity

- Circulation system delivers air and moisture convection
- Auto restart function if the inner glass door is open or in case of power failure
- Platform of each shakers can be pulled out for loading flasks on each shakers efficiently
- Built-in-shaker is run by low noise, low particle or heat occurrence, vibration-free plate BLDC Magnetic Induction Drive
- Natural humidification using water tray
- Optional:
  - 125ml Flask x 158 platform
  - 250ml Flask x 90 platform
  - 500ml Flask x 60 platform
  - 1000ml Flask x 48 platform
  - 2000ml Flask x 9 platform

### ✓ APPLICATION

Labocon CO<sub>2</sub> Incubator Shaker is used for cell culture applications in cell biology, microbiology, proteomics, genomics, molecular biology, drug development etc.

### ✓ SPECIFICATION

Model		LCIS-201	LCIS-202	LCIS-203
<b>INCUBATOR</b>				
Capacity		179 L	650 L	850 L
Temp. Range		Ambient +5°C to 60°C		
Temp. Accuracy		± 0.25°C at 37°C	± 0.3°C at 37°C	
Humidity		≥70% at 37°C		
CO <sub>2</sub> Range		0% to 20%		
CO <sub>2</sub> Accuracy		±0.1% at 5% at 37°C	±0.3% at 5% at 37°C	
CO <sub>2</sub> Sensor		IR CO <sub>2</sub> sensor		
CO <sub>2</sub> Inlet Pressure		0.7 ~ 1 bar		
CO <sub>2</sub> Control		Microprocessor Digital		
Chamber Material		Stainless Steel SUS 304		
Door	Inner	Tempered safety glass door	3 Shelves inner door	3 Shelves inner door
	Outer	Silicon packing magnet door		
Display		LED Display	5 digital LEDx5	5 digital LEDx5



Model	LCIS-201	LCIS-202	LCIS-203
Jacket Type	Dry Wall Type (6 sides heating)	Air jacket type (6 sides heating)	
Filter	None	Anti-Bacterial HEPA filter	
Sterilization	None	U.V 4Wx1ea	
Shelves	2 each	3 each	
Chamber Dimension (WDXH)	473x528x710 mm	700x650x1430 mm	700x800x1530 mm
Each Compartment Dimension (WDXH)	None	Compartment 1(Bottom): 700x650x430mm Compartment 2, 3 (Middle, Top): 700x650x380 mm	700x800x410 mm
Overall Dimension (WDXH)	560x665x945 mm	820x780x1740 mm	820x920x1840 mm
Weight	93 kg	323 kg	393 kg
Power Supply	220 V, 60 Hz		

### SHAKER

Shaking Motion	Orbital		
Speed Range	30 to 200 rpm		30 to 250 rpm
Speed Accuracy	±1 rpm		
Speed Increment	1 rpm		
Timer Range	Continuous or up to 47h 59mins		
Timer Accuracy	-	±1%	±1%
Time Increment	1 min		
Motor	Plate type BL/DC Motor		
Drive System	Beltless direct drive		
Orbit Diameter	25mm		
Platform Size (WXD)	300x330 mm	520x520 mm	520x520 mm
Shaker Dimension	305x350x75 mm	465x540x125 mm	465x540x125 mm
Catalog No.	9341175362	9341176362	9341177362