

# CO<sub>2</sub> Incubator - 3188

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## Water Jacketed CO<sub>2</sub> Incubator



EPCC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

**Analytical Technologies Limited**

An ISO 9001 Certified Company

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- CO<sub>2</sub> incubators are highly recommended for scientific research to grow and maintain cell cultures in vitro. A CO<sub>2</sub> incubator operates on simple parameters depending on 3 parameters, carbon dioxide, Temperature & Relative Humidity.

Precision of the CO<sub>2</sub> incubator is of crucial & high importance as the smallest deviation in the CO<sub>2</sub> atmosphere, temperature or humidity parameters during cell cultivation or any scientific research or experiment can affect the cell development & may cause unexpected changes.

- Sleek, reliable & versatile
- Easy to use
- HEPA filters
- Less maintenance
- Energy efficient
- User friendly
- Microprocessor based Controller

### ►► Applications include :

- Tissue engineering
- Cell culture
- In vitro fertilization
- Neuroscience
- Cancer research
- Other mammalian cell research

### ►► Construction :

- Inner chamber is made up of high grade stainless steel
- Outer chamber is made up of GIPC duly powder coated.
- Tray is also supplied to make the shelves inside the chamber.
- Glass Wool Insulation: 75 mm insulation to reduce heat losses in cabinet for better sensitivity and economical operations with minimal impact on the environment.
- Forced air circulation in the chamber by a blower ensures uniform temperature and humidity inside the chamber.
- Door: is provided with magnetic door closer and its outer body is made of powder coated MS.
- Carbon Dioxide can be provided inside the chamber through an inlet nozzle provided on the cabinet through a CO<sub>2</sub> cylinder. The gas flow can be regulated by using flow control valve with CO<sub>2</sub> regulator. Air can be admitted through nozzle fixed on the cabinet.

**Temperature Range:** 0.5°C above ambient to 50°C

**Temperature uniformity:**  $\pm 0.35^\circ\text{C}$  at  $37^\circ\text{C} \pm 0.5^\circ\text{C}$

**Temperature Sensor:** PT 100

**Temperature Control:** Temperature inside the chamber is controlled by intelligent programmable temperature controller and indicator and the controller is based on the microcontroller nano watt technology.

**Heating:** is done with ISI marked strip type heaters placed around the inner chamber. The warm air is evenly distributed throughout the chamber through efficient motor fans ensuring very good temperature sensitivity

**Air Circulation:** Circulated by ISI mark silicon winded motors which are connected to balanced blowers.

**CO<sub>2</sub> Control system:** these Incubator use a microprocessor based, non-dispersive infrared CO<sub>2</sub> sensor. The amount of energy diffused to the detector is an exact logarithmic function of the CO<sub>2</sub> concentration in the gas between source and detector. The wavelengths used are absorbed by a filter in the CO<sub>2</sub> bandwidth making the measurements insensitive to other components, such as water vapor. Advanced design provides a very stable drift-free output requiring less frequent calibration. The sensor is within the chamber air plenum so very accurate CO<sub>2</sub> control is achieved.

**CO<sub>2</sub> Concentration Range:** 0.2 to 20%

**CO<sub>2</sub> Control Accuracy:**  $\pm 0.1\%$

## ►► Technical Matrix :

Capacity		100 Liter
Construction		Triple walled
Inner		Stainless Steel 304
Outer		GIPC Epoxy Powder Coated
Inner Glass Door		To Observe Sample without disturb uniformity of chamber
No. of shelves (supplied)		4 Nos.
Type of Shelves		Wire Mesh
Material of Shelves		Stainless Steel 304
Temperature Range		5°C above ambient to 50°C
Temperature Controller		Microprocessor based PID
Temperature Uniformity		±0.35°C at 37°C ±0.5°C
Temperature sensor		PT-100
Display		Digital
Alarm		Audible & Visual
HEPA Filter		Inbuilt
Heating systemCO2		Direct heating system
		Water-Jacketed
CO2	Range	0.2 - 20%
	Accuracy	± 0.1%
	Sensor	infrared CO2 sensor
	Rate	≤ 5minutes
Humidity		Up to 95%
Humidity Pan		Stainless Steel 304
Water reservoir system		3 liters
Insulation		75 mm (Glass Wool)
Power supply		220 V , Single Phase 50/60Hz
CO2 Cylinder & Regulator		Optional (Purchase Locally Yourself)

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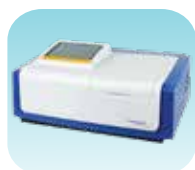
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3. ANALYTICAL FOUNDATION aims to DETOXYFY human minds,souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.

## Reach us @



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