PRECIOUS® TECHNO ENGINEERING
SERVES THE ENGINEERING QUALITY

CO2 INCUBATOR

TYPES

- **Air Jacketed CO_2 Incubator**

Faster temperature recovery after door opening.
Easier maintenance — no water handling.
Lighter and easier to move.
Suitable for laboratories with high access frequency.

- **Water Jacketed CO_2 Incubator**

Superior temperature stability and uniformity.
Less affected by ambient temperature changes.
Ideal for long-term cell culture or critical incubation conditions.

KEY FEATURES

- **Precise CO_2 Control:** Maintains accurate Co_2 concentration (typically 0–20%) for optimal cell culture growth.
- **Stable Temperature:** Uniform temperature distribution, usually around 37°C, with precise digital control.
- **Humidity Regulation:** Maintains high humidity (≈95%) to prevent media evaporation.
- **HEPA Filtration System:** Ensures contamination-free environment with clean air circulation.
- **Infrared (IR) / CO_2 Sensor:** Provides reliable CO_2 level monitoring and quick recovery after door openings.
- **Automatic Sterilization:** High-temperature sterilization or UV sterilization cycle for contamination prevention.
- **Inner Glass Door Design:** Allows sample observation without disturbing chamber conditions.
- **Stainless Steel Chamber:** Corrosion resistant and easy to clean.
- **Alarm System:** Alerts for deviations in temperature, CO_2, or humidity levels.
- **Data Logging & Display:** Digital display for real-time monitoring with optional USB or Wi-Fi data recording.

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TECHNICAL MATRIX

Model	PTE-CO-407 A	PTE-CO-407 B	PTE-CO-407 C	PTE-CO-407 D
Inner Size WxDxH	16”x16”x16”	18”x18”x18”	18”x18”x30”	24”x24”x24”
Capacity	80 litres	100 Litres	150 Litres	200 Litres
Temperature Range	Ambient +5°C to 60°C			
Temperature Accuracy	±0.1°C			
CO_2 Range	0 to 20% (adjustable)			
CO_2 Sensor	Infrared (IR) or Thermal Conductivity (TC) type			
CO_2 Accuracy	±0.1%			
Humidity	Up to 95% RH (via water tray or humidity control system)			
Chamber Material	Stainless Steel (SS 304 / SS 316)			
Control System	Microprocessor / PID controller with digital display			
Door Design	Double door (outer solid & inner glass door)			
Sterilization	High-temperature sterilization (typically 180°C) or UV			
Air Circulation	Gentle fan-forced for uniform conditions			
Alarm System	Audio-visual alarm for deviation in CO_2, temperature,			
Power Supply	220–240 V AC, 50 Hz			

OPTIONAL ADD-ONS

- UV Sterilization Lamp: For continuous chamber decontamination.
- HEPA Filter Module: Ensures particle-free air circulation inside the chamber.
- Data Logger / Printer: For recording temperature, CO_2, and humidity history.
- RS-232 / USB Port : Enables remote monitoring and data transfer.
- O_2 Control Module: Allows adjustment of oxygen concentration (for hypoxia/hyperoxia studies).
- CO_2 Gas Cylinder with Regulator: Complete gas supply setup for easy installation.
- Alarm & Safety Systems: Extended alarms for CO_2 or temperature deviation, power failure backup.
- Internal Shelving Options: Adjustable stainless-steel or perforated trays for flexible sample arrangement.
- Touchscreen Controller: Advanced interface with graphical trend display.
- High-Temperature Sterilization Cycle: Automatic 180°C sterilization to eliminate contamination.
- Co_2 Auto-Calibration System: Simplifies maintenance and ensures sensor accuracy.