



iGENE LABSERVE®
Innovative • Interactive • Intuitive

CO₂ / TriGas Incubators



Precise CO₂ / O₂ Control



Advanced Sterilization (UV / 140°C / 180°C)



ISO Class 5 HEPA Filtration



Intelligent Touchscreen Control System



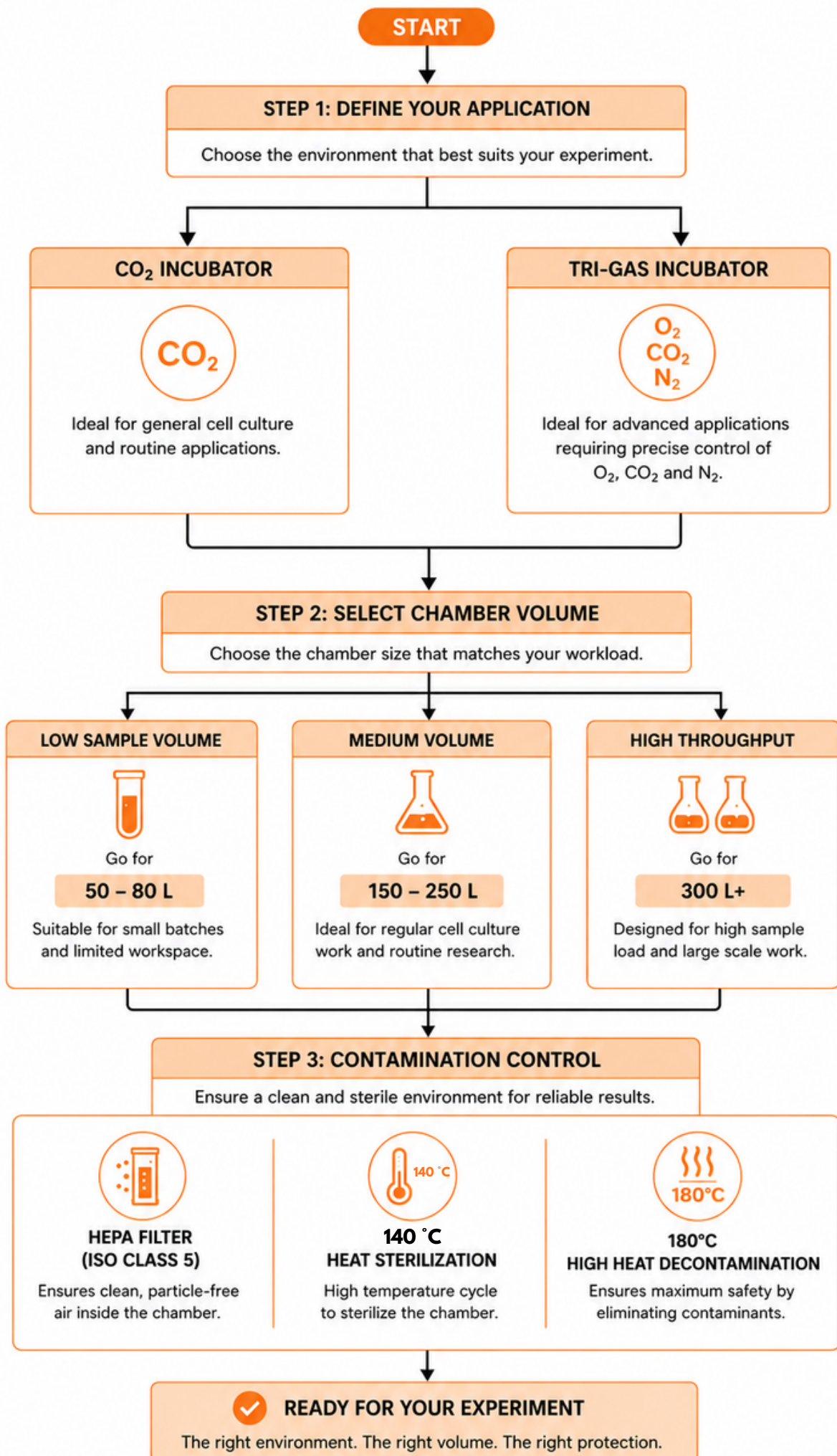
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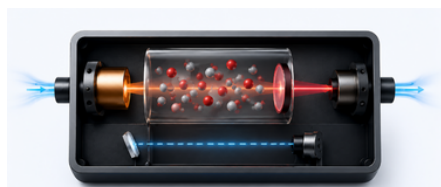
MSME
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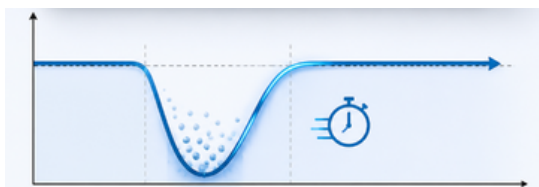


Engineered for Reliability. Designed for Protection.



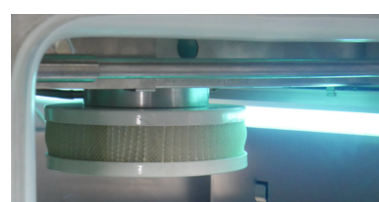
Drift-Free IR CO2 Sensor

Stable, accurate CO2 measurement unaffected by humidity or frequent door openings.



Rapid Recovery Technology

Maintains internal stability even with repeated access.



Advanced Contamination Control

ISO Class 5 HEPA filtration
180°C sterilization
Microbial gas filters



User-Centric Design

Touchscreen control, data logging, multi-user access.

Difference between Drift free IR sensor and Conventional T.C. Sensor

Parameter	Drift-Free Infra-Red (IR) Sensor	Conventional Thermal Conductivity (T.C.) Sensor
Accuracy Stability	Completely drift-free operation	Accuracy affected by humidity changes
CO ₂ Measurement Accuracy	Accurate CO ₂ monitoring at all times	Accurate only at 88–92% RH
Performance After Door Opening	Recovers quickly and maintains accuracy	Measures inaccurately for up to 1 hour after door closure
Dependence on Humidity	Independent of humidity recovery	Highly dependent on humidity recovery
Recovery Time	Fast stabilization	Slow stabilization after disturbance
Sample Protection	Ideal for sensitive samples and critical cell lines	Risk of instability for sensitive samples
pH Stability of Culture Media	Better pH maintenance	pH recovery may not occur properly
Risk of Cell Desiccation	Minimal risk	Possible due to delayed humidity recovery
Suitability	Advanced research, IVF, stem cell and critical applications	Basic routine applications
Reliability	High precision and consistent performance	Lower consistency after door openings



6-Side Direct Heat Chamber

Ensures uniform temperature distribution with six-sided heating. The temperature field stabilizes at $\pm 0.1^{\circ}\text{C}$, creating an ideal environment for cell and tissue cultivation.

Polished Stainless Steel Interior

The one-piece, polished stainless-steel chamber is designed for easy cleaning. Rounded corners and removable stainless-steel shelves allow for quick maintenance without tools.

Detachable Humidity Pan

A 304 stainless steel water pan with a 4-liter capacity maintains a high-humidity environment.

Versatile Sterilization Options

Choose between UV sterilization or high heat sterilization at 140°C or 180°C , offering flexible and powerful sterilization options for hygiene and safety.

ISO Class 5 HEPA-Filtered Airflow System

Integrated HEPA filtration achieves ISO Class 5 air quality within 5 minutes of closing the door, continuously protecting against airborne contaminants.

Infrared (IR) CO2 Sensor

Provides accurate CO2 concentration monitoring, minimizing errors from humidity or temperature fluctuations, especially useful for frequent door openings.

Active Airflow Technology

Fan-assisted airflow ensures rapid recovery of temperature and gas conditions, maintaining a consistent environment throughout the chamber.

5-Inch LCD Touchscreen

A user-friendly touchscreen offers intuitive controls for settings, with audible/visual alarms, historical data display, and USB data export options.

Steel Shelves

Includes a minimum of three (3) steel shelves for efficient storage and organization.



► Condensation Prevention

Heating elements around the front door and frame eliminate condensation buildup on the chamber and glass door.

► Energy Efficiency

Optimized for lower gas and heat consumption, with faster recovery times and efficient management for various sample types.

► Overheating Protection

A safety feature automatically cuts off heating if the temperature exceeds the set limit or if the control system malfunctions

► Optional High-Precision Solid-State Oxygen Sensors for monitoring purpose

► Double-Walled Modular Design

Features 3-inch thick glass wool blanket insulation for superior temperature retention and energy efficiency.

► Microbial Filters

Equipped with microbial filters on all gas inlets, outlets, and sample ports to minimize potential sources of contamination.





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TriGas Incubator Key Features



► Overheating Protection

A safety feature automatically cuts off heating if the temperature exceeds the set limit or if the control system malfunctions.

► High-Precision Solid-State Oxygen Sensors

Adjustable from ultra-low (hypoxia) 0.0%-0.1% to 20%, providing flexible performance, optional hyperoxia condition will be provided.

► Double-Walled Modular Design

Features 3-inch thick Blanket insulation for superior temperature retention and energy efficiency.

► Microbial Filters

Equipped with microbial filters on all gas inlets, outlets, and sample ports to minimize potential sources of contamination.

► Energy Efficiency

Optimized for lower gas and heat consumption, with faster recovery times and efficient management for various sample types.

► Automatic N₂ balancing

► ±0.2% O₂ accuracy

► Real-time gas monitoring

Contamination Control in CO₂ and TriGas Incubator



► Designed to Minimize Risk at Every Level

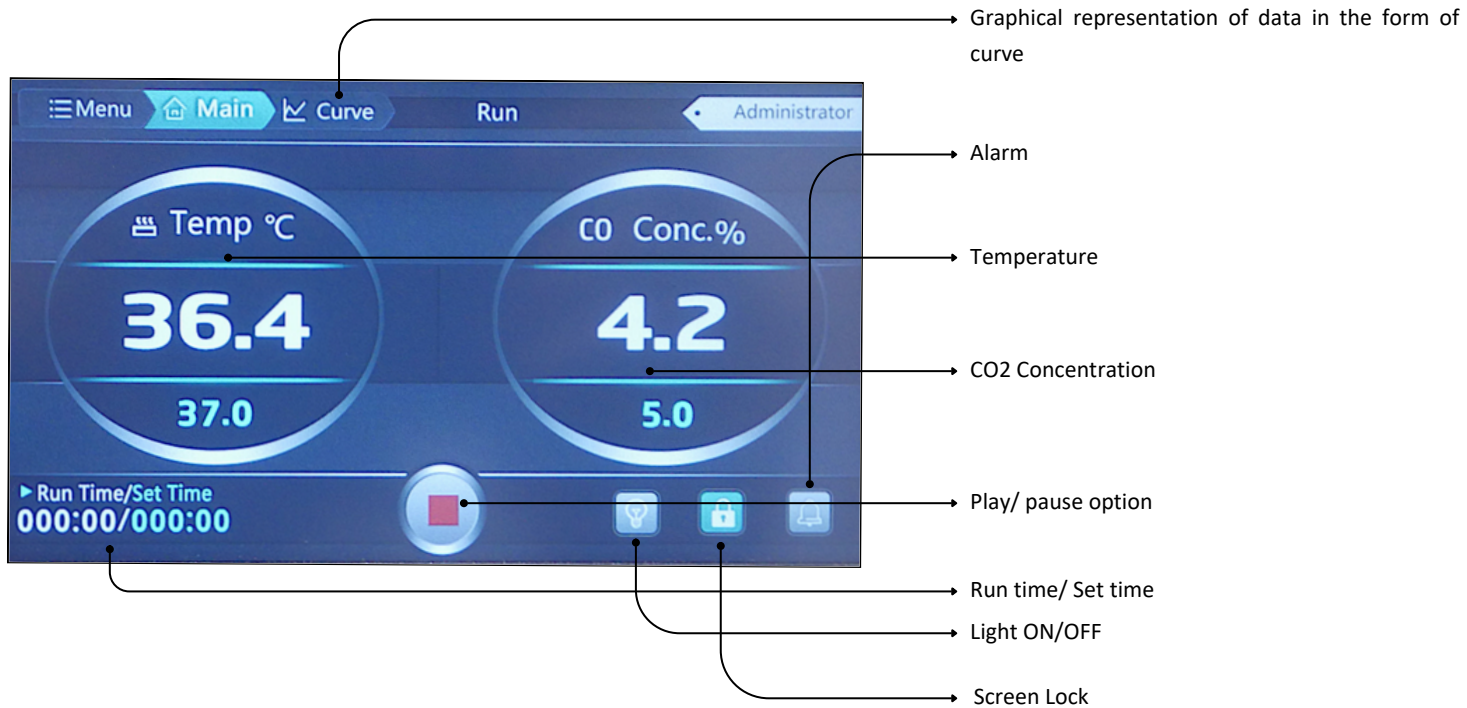
- ISO Class 5 HEPA filtration
- High-temperature sterilization (180°C)
- UV sterilization option
- Microbial gas filters
- Seamless chamber design

Why it matters: Protects culture integrity and ensures reproducible results.

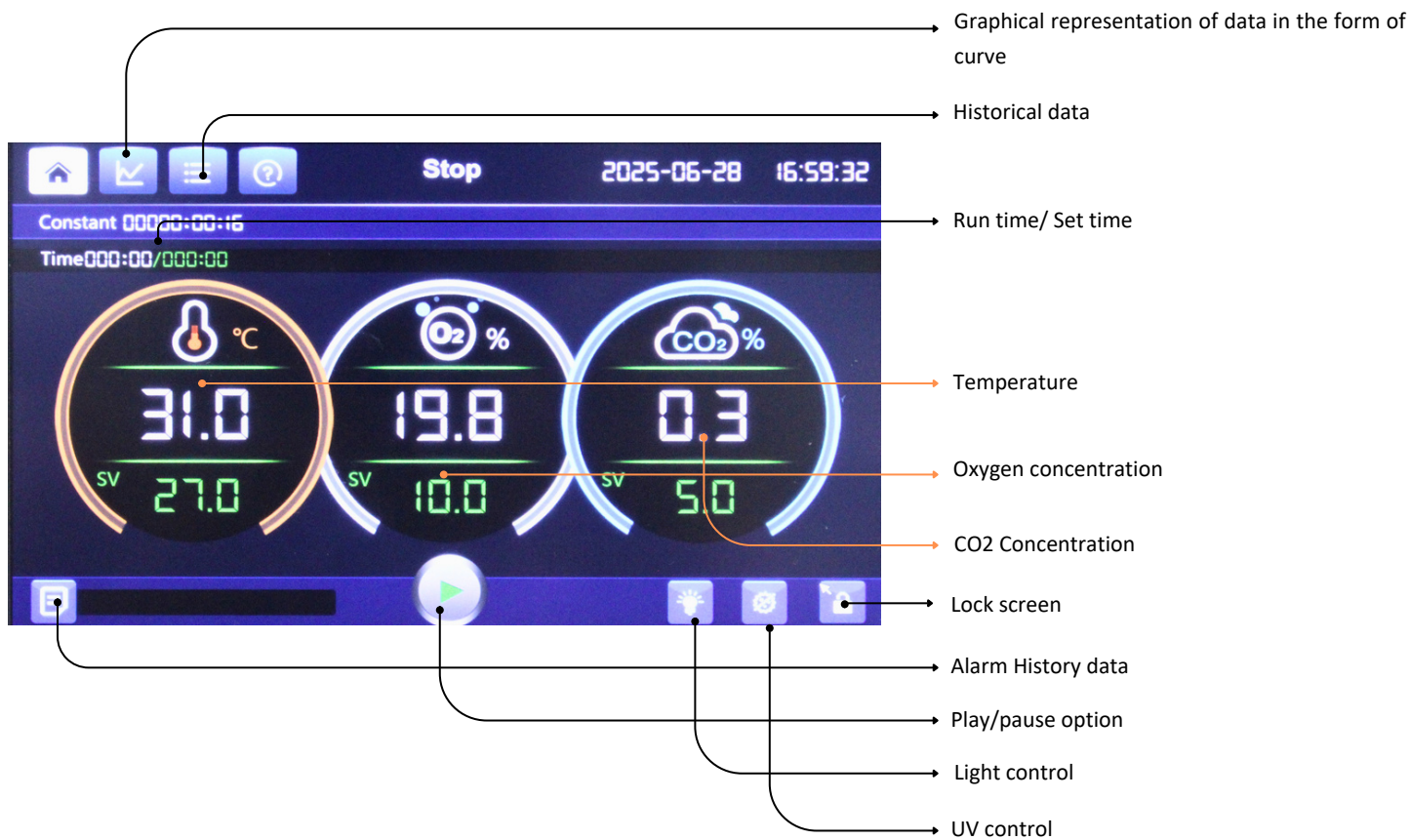
► Design and Build Quality

- Stainless steel seamless chamber
- Rounded corners for easy cleaning
- Strong door sealing
- Anti-tilt shelves
- Stackable design

► CO2 Incubator



► TriGas Incubator



Technical Specifications		
Parameter	CO2 Incubator (IG-CO2 Series)	Tri-Gas Incubator (IG-TRIG Series)
Model Variants	IG-CO280 / IG-CO2180 (UV / 140°C / 180°C)	IG-TRIG80 / IG-TRIG180 (UV / 140°C / 180°C)
Volume	80L / 180L	80L / 180L
Controller	Microprocessor-based (CO2 & Temp control)	Microprocessor-based (CO2, O2, N2 & Temp control)
Display	LCD Touchscreen	LCD Touchscreen
Temperature Range	Ambient +5°C to 60°C	Ambient +5°C to 60°C
Temperature Stability	±0.1°C	±0.1°C
Temperature Accuracy	±0.3°C at 37°C	±0.3°C at 37°C
Temperature Uniformity	±0.5°C at 37°C	±0.5°C at 37°C
Timer	0–999 hr 59 min	0–999 hr 59 min
CO2 Measurement	Infrared (IR) sensor	Infrared (IR) sensor
CO2 Control Range	0–20%	0–20%
CO2 Accuracy / Increment	±0.3% / 0.1%	±0.3% / 0.1%
CO2 Stability	±0.1%	±0.1%
CO2 Uniformity	±0.1%	±0.1%
O2 Measurement	-	Zirconia O2 sensor
O2 Control	-	Standard (1%–25%), optional hyperoxia
O2 Accuracy	—	±0.2%
N2 Control	—	Auto-regulated for O2 balance
Humidity	~95% RH at 37°C	~95% RH at 37°C
HEPA Filtration	ISO Class 5 (5 min recovery)	ISO Class 5 (5 min recovery)
Temperature Recovery	≤10 min	≤10 min
Gas Recovery (CO2)	≤5 min	≤5 min
Gas Ports	CO2 inlet	CO2, O2, N2 ports (configurable)

Technical Specifications		
Parameter	CO2 Incubator (IG-CO2 Series)	Tri-Gas Incubator (IG-TRIG Series)
Sterilization Options	UV / 140°C / 180°C	UV / 140°C / 180°C
Chamber Material (MOC)	SS inner, powder-coated MS outer	SS inner, powder-coated MS outer
Shelves	≥3 SS shelves	≥3 SS shelves
Interior Lighting	Fluorescent	Fluorescent
Data Storage	250,000 records	250,000 records
Data Export	USB	USB
Stackability	Up to 2 units	Up to 2 units
Working Temp.	18–30°C	18–30°C
Power Supply	230V ±10%, 50–60 Hz	230V ±10%, 50–60 Hz
Inner Dimensions (mm)	440×400×500 / 530×535×670	Same as CO2 models
Outer Dimensions (mm)	580×516×872 / 660×652×1030	Same as CO2 models
CO2 vs TriGas Comparison		
Feature	CO2 Incubator	Tri-Gas Incubator
Gas Control	CO2 only	CO2 + O2
Applications	Routine	Hypoxia and hypoxic studies
Oxygen Control	No	Yes
Complexity	Low	High
Cost	Lower	Higher

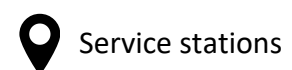
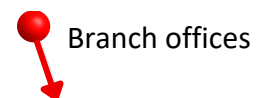
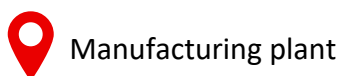
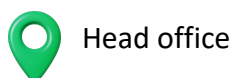
Ordering Information

Model No.	Description	Unit
IG-CO280UV	The 80L CO2 Incubator with UV sterilization is supplied as a complete system, including the main unit, power cord, CO2 tubing of 2 meters, CO2 regulator, humidity tray, shelves (2 nos.), and 16 Amp fuses (2 nos.), ensuring all essential components are provided for immediate installation and operation.	1 Unit
IG-CO280H	The 80L CO2 Incubator with 140°C heat sterilization is supplied as a complete system, including the main unit, power cord, CO2 tubing of 2 meters, CO2 regulator, humidity tray, shelves (2 nos.), and 16 Amp fuses (2 nos.), ensuring all essential components are provided for immediate installation and operation.	1 Unit
IG-CO280HH	The 80L CO2 Incubator with 180°C high heat sterilization is supplied as a complete system, including the main unit, power cord, CO2 tubing of 2 meters, CO2 regulator, humidity tray, shelves (2 nos.), and 16 Amp fuses (2 nos.), ensuring all essential components are provided for immediate installation and operation.	1 Unit
IG-CO2180UV	The 180L CO2 Incubator with UV sterilization is supplied as a complete system, including the main unit, power cord, CO2 tubing of 2 meters, CO2 regulator, humidity tray, shelves (3 nos.), and 16 Amp fuses (2 nos.), ensuring all essential components are provided for immediate installation and operation.	1 Unit
IG-CO2180H	The 180L CO2 Incubator with 140°C heat sterilization is supplied as a complete system, including the main unit, power cord, CO2 tubing of 2 meters, CO2 regulator, humidity tray, shelves (3 nos.), and 16 Amp fuses (2 nos.), ensuring all essential components are provided for immediate installation and operation.	1 Unit
IG-CO2180HH	The 180L CO2 Incubator with 180°C high heat sterilization is supplied as a complete system, including the main unit, power cord, CO2 tubing of 2 meters, CO2 regulator, humidity tray, shelves (3 nos.), and 16 Amp fuses (2 nos.), ensuring all essential components are provided for immediate installation and operation.	1 Unit
IG-TRIG80UV	The 80L TriGas Incubator with UV sterilization is supplied as a complete system, including the main unit, power cord, CO ₂ tubing of 2 meters (2 nos.), CO ₂ regulator, humidity tray, shelves (2 nos.), and 16 Amp fuses (2 nos.), ensuring all essential components are provided for immediate installation and operation.	1 Unit
IG-TRIG80H	The 80L TriGas Incubator with 140°C heat sterilization is supplied as a complete system, including the main unit, power cord, CO ₂ tubing of 2 meters (2 nos.), CO ₂ regulator, humidity tray, shelves (2 nos.), and 16 Amp fuses (2 nos.), ensuring all essential components are provided for immediate installation and operation.	1 Unit

Ordering Information

Model No.	Description	Unit
IG-TRIG80HH	The 80L TriGas Incubator with 180°C high heat sterilization is supplied as a complete system, including the main unit, power cord, CO ₂ tubing of 2 meters (2 nos.), CO ₂ regulator, humidity tray, shelves (2 nos.), and 16 Amp fuses (2 nos.), ensuring all essential components are provided for immediate installation and operation.	1 Unit
IG-TRIG180UV	The 180L TriGas Incubator with UV sterilization is supplied as a complete system, including the main unit, power cord, CO ₂ tubing of 2 meters (2 nos.), CO ₂ regulator, humidity tray, shelves (2 nos.), and 16 Amp fuses (2 nos.), ensuring all essential components are provided for immediate installation and operation.	1 Unit
IG-TRIG180H	The 180L TriGas Incubator with 140°C heat sterilization is supplied as a complete system, including the main unit, power cord, CO ₂ tubing of 2 meters (2 nos.), CO ₂ regulator, humidity tray, shelves (2 nos.), and 16 Amp fuses (2 nos.), ensuring all essential components are provided for immediate installation and operation.	1 Unit
IG-TRIG180HH	The 180L TriGas Incubator with 180°C high heat sterilization is supplied as a complete system, including the main unit, power cord, CO ₂ tubing of 2 meters (2 nos.), CO ₂ regulator, humidity tray, shelves (2 nos.), and 16 Amp fuses (2 nos.), ensuring all essential components are provided for immediate installation and operation.	1 Unit





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