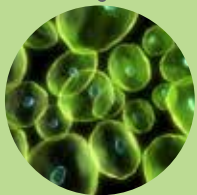
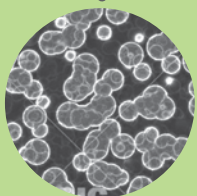


CO₂ INCUBATORS: 7401, 7402 & 7403 SERIES

OPTIMIZED FOR APPLICATIONS WITH SHAKERS AND CELL ROLLERS



PRODUCT LINE OVERVIEW & STANDARD FEATURES

Caron's Reach-in Shaker Ready and Cell Roller Ready CO₂ Incubators are optimized for suspension and scale up cell culture applications that require agitation or shaking so nutrients are distributed throughout the culture media.

Ready to accommodate shakers and/or cell rollers inside, these CO₂ incubators provide optimum environmental conditions for precise and reproducible results. Standard features include: power outlets, IR CO₂ control, heavy-duty shelves and/or roller ramp, exact RTD temperature control, cooling capacity to support up to a 200W heat load, intuitive controls, space saving design, heated triple-pane glass door, tool-less removable interior, a wide variety of options/accessories and more!

NEW: Simple, convenient controls. The 7" full-color touchscreen control system is simple to use with fewer buttons to navigate. Our system controls are "smart," using breadcrumb trail navigation to keep track of your location within the menus. The configurable status center has built-in information updates, alerts and alarms to communicate a wide range of status conditions. Our built-in preventive maintenance status alerts are real-time reminders for basic service updates and annual calibrations to ensure regular maintenance and enhance user experience.



FEATURES & BENEFITS

- The standard temperature range of 20°C to 60°C is maintained with our built-in gROD (Refrigeration on Demand) cooling system and a drift-resistant RTD temperature sensor, providing stable temperature control over long periods of time.
- An IR sensor is utilized to maintain a CO₂ range of 0 to 20%. It is a safe, time-tested technology that provides fast CO₂ recovery after door openings and a consistently ultra-stable environment.
- The interior consists of polished stainless steel, which is highly resistant to corrosion and allows for easy cleaning when needed.
- Heavy-duty shelves are standard on units that are shaker-ready. The shelves are easy to remove and relocate without tools and support up to 150 lbs. to accommodate shakers, rotators, rockers and more.
- The cell roller ramp is standard on units that are cell roller ready to accommodate easy installation and removal of cell roller systems.
- Heated, triple-pane glass door minimizes condensation for a clear view of your product and aids in rapid temperature recovery.
- Our "tool-less" interior design allows you to remove
 - the interior components without tools.
- The control system is intuitive and features easy-to-read icons and a familiar, user-friendly display that can be operated with gloves on. Visualize operating conditions even from across the room.
- In the event of a power failure, non-volatile memory allows the chamber to return to its original setpoint when power is restored.
- Caron's gentle, horizontal airflow system generates evenly distributed airflow across all shelf locations. Maximum uniformity and rapid recovery are maintained, even under heavy loads.
- 115V units will plug into a standard 20 Amp laboratory electrical outlet, reducing the amount of energy required to operate the chamber.
- Caron green door handles are aesthetically pleasing and enhance ergonomics.
- Two access ports, one on each side of the chamber, make connecting instrumentation convenient.
- Multiple options and accessories are available, allowing you to further customize the chambers to your need.

CO₂ INCUBATORS *for Shakers*



Using shakers inside a CO₂ incubator for non-adherent cell culture studies provides ultimate flexibility and reliability for your research and scale up needs. A shaker and its platform can support all stages of suspension cell culture by adjusting clamps and setup style for a variety of vessel sizes. By then placing the shaker inside a CO₂ incubator, cells receive the precise and evenly distributed conditions needed to thrive, making research reliable and repeatable.

Competitive CO₂ incubator models require technical modifications to support shakers, however, Caron's two CO₂ Incubators for Shakers are designed with specific built-in features for this application. In fact, our design allows you to optimize your lab space and throughput by supporting two or three shakers high on heavy-duty shelves that are removable and adjustable.

CO₂ INCUBATOR: FOR SHAKERS (2-TIERS)



	Model Numbers		
Standard Specs:	7401-25-1	7401-25-2	7401-25-3
Capacity	25 ft ³ (708 L)		
# of Shaker-Ready Tiers/Shelves	Two (supports 150 lbs. each)		
# of Interior Outlets (GFI protection)	3 (115V, 60 Hz)	3 (115V, 60 Hz)	3 (230V, 50Hz)
IR CO ₂ Control	0-20%		
Cooling/Temperature Control	20°C-60°C (at 200W heat load max.)		
Electrical	115V, 60Hz, 16A	208/230V, 60Hz, 10A	230V, 50Hz, 10A
Shipping Weight (lbs.)	725		825*
Options & Accessories:			
Elevated Humidity (water pan) up to 95% @ 37°C	HUMD305-1	HUMD305-2	HUMD305-3
Controlled Humidity (gVapor) & Readout (Ambient to 95% RH)	HUMD307		
Automatic Decontamination Cycle	DECN301-1	DECN301-4	DECN301-4

CO₂ INCUBATOR: FOR SHAKERS (3-TIERS)

	Model Numbers		
Standard Specs:	7401-33-1	7401-33-2	7401-33-3
Capacity	33 ft ³ (934 L)		
# of Shaker-Ready Tiers/Shelves	Three (supports 150 lbs. each)		
# of Interior Outlets (GFI protection)	3 (115V, 60 Hz)	3 (115V, 60 Hz)	3 (230V, 50Hz)
IR CO ₂ Control	0-20%		
Cooling/Temperature Control	20°C-60°C (at 200W heat load max.)		
Electrical	115V, 60Hz, 16A	208/230V, 60Hz, 10A	230V, 50Hz, 10A
Shipping Weight (lbs.)	775		1,050*
Options & Accessories:			
Elevated Humidity (water pan) up to 95% @ 37°C	HUMD305-1	HUMD305-2	HUMD305-3
Controlled Humidity (gVapor) & Readout (Ambient to 95% RH)	HUMD307		
Automatic Decontamination Cycle	DECN301-1	DECN301-4	DECN301-4

Incubators shown with VWR Advanced 3500 Orbital Shakers, sold separately (VWR Cat. No. 89032-096).



CO₂ INCUBATORS *for a Cell Roller*



Our Cell Roller Ready CO₂ Incubators are ideal for scale-up production of monolayer cell cultures and other large-scale cell culture applications with roller apparatus. This Reach-in CO₂ Incubator is designed specifically for use with cell roller apparatus and is supplied with an easy-to-use ramp for roller installation.

Warm rooms are used to perform cell production runs with roller bottles, however, these basic rooms limit production output due to lack of control of pH. Our application-specific design provides precise and evenly distributed temperature and CO₂ so production capacity is maximized. Our incubators have an ergonomic design and take up a minimal footprint, making them well suited for many laboratory and production facility scenarios.

CO₂ INCUBATOR: FOR CELL ROLLER (5-TIERS)



	Model Numbers		
Standard Specs:	7402-25-1	7402-25-2	7402-25-3
Capacity	25 ft ³ (708 L)		
Cell Roller Height	Up to 5 Tiers		
# of Interior Outlets (GFI protection)	One (115V, 60 Hz)	One (115V, 60 Hz)	One (230V, 50Hz)
IR CO ₂ Control	0-20%		
Cooling/Temperature Control	20°C-60°C (at 200W heat load max.)		
Electrical	115V, 60Hz, 16A	208/230V, 60Hz, 10A	230V, 50Hz, 10A
Shipping Weight (lbs.)	725		825*
Options & Accessories:			
Elevated Humidity (water pan) up to 95% @ 37°C	HUMD306-1	HUMD306-2	HUMD306-3
Controlled Humidity (gVapor) & Readout (Ambient to 95% RH)	HUMD307		
Automatic Decontamination Cycle	DECN301-1	DECN301-4	DECN301-4

CO₂ INCUBATOR: FOR CELL ROLLER (7-TIERS)

	Model Numbers		
Standard Specs:	7402-33-1	7402-33-2	7402-33-3
Capacity	33 ft ³ (934 L)		
Cell Roller Height	Up to 7 Tiers		
# of Interior Outlets (GFI protection)	One (115V, 60 Hz)	One (115V, 60 Hz)	One (230V, 50Hz)
IR CO ₂ Control	0-20%		
Cooling/Temperature Control	20°C-60°C (at 200W heat load max.)		
Electrical	115V, 60Hz, 16A	208/230V, 60Hz, 10A	230V, 50Hz, 10A
Shipping Weight (lbs.)	775		1,050*
Options & Accessories:			
Elevated Humidity (water pan) up to 95% @ 37°C	HUMD306-1	HUMD306-2	HUMD306-3
Controlled Humidity (gVapor) & Readout (Ambient to 95% RH)	HUMD307		
Automatic Decontamination Cycle	DECN301-1	DECN301-4	DECN301-4



Incubators shown with Wheaton Cell Roller Apparatus, sold separately, through VWR International.

CO₂ INCUBATORS *for a Shaker & Cell Roller*



These CO₂ incubators are ready for use with a shaker and cell roller inside, making them ideal for facilities that need setup flexibility and versatility. Each incubator comes with a cell roller ramp for easy cell roller installation inside the incubator and a heavy-duty shelf for the shaker.



Cell cultures always receive evenly distributed airflow, temperature control and CO₂. Tight temperature control is always maintained with the built-in cooling system, equipped to handle shaker and cell roller heat loads.

CO₂ INCUBATOR : 1 SHAKER/3-TIER CELL ROLLER



	Model Numbers		
Standard Specs:	7403-25-1	7403-25-2	7403-25-3
Capacity	25 ft ³ (708 L)		
Interior Configuration	One Heavy Duty Shelf & Cell Roller Ramp (up to 3-tiers)		
# of Interior Outlets (GFI protection)	3 (115V, 60 Hz)	3 (115V, 60 Hz)	3 (230V, 50Hz)
IR CO ₂ Control	0-20%		
Cooling/Temperature Control	20°C-60°C (at 200W heat load max.)		
Electrical	115V, 60Hz, 16A	208/230V, 60Hz, 10A	230V, 50Hz, 10A
Shipping Weight (lbs.)	725		825*
Options & Accessories:			
Elevated Humidity (water pan) up to 95% @ 37°C	HUMD306-1	HUMD306-2	HUMD306-3
Controlled Humidity (gVapor) & Readout (Ambient to 95% RH)	HUMD307		
Automatic Decontamination Cycle	DECN301-1	DECN301-4	DECN301-4

CO₂ INCUBATOR : 1 SHAKER/5-TIER CELL ROLLER

	Model Numbers		
Standard Specs:	7403-33-1	7403-33-2	7403-33-3
Capacity	33 ft ³ (934 L)		
Interior Configuration	One Heavy Duty Shelf & Cell Roller Ramp (up to 5-tiers)		
# of Interior Outlets (GFI protection)	3 (115V, 60 Hz)	3 (115V, 60 Hz)	3 (230V, 50 Hz)
IR CO ₂ Control	0-20%		
Cooling/Temperature Control	20°C-60°C (at 200W heat load max.)		
Electrical	115V, 60Hz, 16A	208/230V, 60Hz, 10A	230V, 50Hz, 10A
Shipping Weight (lbs.)	775		1,050*
Options & Accessories:			
Elevated Humidity (water pan) up to 95% @ 37°C	HUMD306-1	HUMD306-2	HUMD306-3
Controlled Humidity (gVapor) & Readout (Ambient to 95% RH)	HUMD307		
Automatic Decontamination Cycle	DECN301-1	DECN301-4	DECN301-4



*Weight includes export shipping crate.

ADDITIONAL SPECIFICATIONS, OPTIONS & ACCESSORIES

Model Number	7401-25-1 7401-25-2 7401-25-3	7401-33-1 7401-33-2 7401-33-3	7402-25-1 7402-25-2 7402-25-3	7402-33-1 7402-33-2 7402-33-3	7403-25-1 7403-25-2 7403-25-3	7403-33-1 7403-33-2 7403-33-3
Description	CO₂ Incubator for Shakers		CO₂ Incubator for Cell Roller		CO₂ Incubator for Shaker & Cell Roller	
# of Shaker-Ready Shelves	2	3	N/A		1	
Cell Roller Height Capacity	N/A		5-Tiers	7-Tiers	3-Tiers	5-Tiers
Standard Shelf Clearance**	23.5" (59.7 cm)	19" (48.3 cm)	N/A		17.5" (44.5 cm)	
Temperature Range	20°C-60°C (at 200W heat load max.)					
Temperature Sensor	3-wire RTD					
Temperature Control	±0.1°C					
Temperature Uniformity	±0.3°C					
CO ₂ Range	0-20% CO ₂					
CO ₂ Control	±0.1% CO ₂					
CO ₂ Sensor	Infrared CO ₂ Sensor					
Interior Dimensions	32"W x 27"D x 52.7"H (81.3 cm x 68.6 cm x 133.9 cm)	32"W x 27"D x 65.7"H (81.3 cm x 68.6 cm x 166.9 cm)	32"W x 27"D x 52.7"H (81.3 cm x 68.6 cm x 133.9 cm)	32"W x 27"D x 65.7"H (81.3 cm x 68.6 cm x 166.9 cm)	32"W x 27"D x 52.7"H (81.3 cm x 68.6 cm x 133.9 cm)	32"W x 27"D x 65.7"H (81.3 cm x 68.6 cm x 166.9 cm)
Interior Construction	Stainless Steel					
Exterior Dimensions	35.5"W x 33.3"D* x 77.1"H (90.2 cm x 84.6 cm x 195.8 cm)	35.5"W x 33.3"D* x 90.1"H (90.2 cm x 84.6 cm x 228.9 cm)	35.5"W x 33.3"D* x 77.1"H (90.2 cm x 84.6 cm x 195.8 cm)	35.5"W x 33.3"D* x 90.1"H (90.2 cm x 84.6 cm x 228.9 cm)	35.5"W x 33.3"D* x 77.1"H (90.2 cm x 84.6 cm x 195.8 cm)	35.5"W x 33.3"D* x 90.1"H (90.2 cm x 84.6 cm x 228.9 cm)
Exterior Construction	Cold Rolled Steel, Powder Coated					
Shelf Construction	Type 304 Stainless Steel, Electro polished		N/A		Type 304 Stainless Steel, Electro polished	
Shelf Dimensions	29.25"W x 24.45"D (74.3 cm x 62.1 cm)		N/A		29.25"W x 24.45"D (74.3 cm x 62.1 cm)	
Work Space	25 ft ³ (708 Liters)	33 ft ³ (934 Liters)	25 ft ³ (708 Liters)	33 ft ³ (934 Liters)	25 ft ³ (708 Liters)	33 ft ³ (934 Liters)
Specifications are subject to change without notice; are based on 20°C ambient & standard voltage. Shaker and Cell Rollers not included. *Add 2.75" for handle. **Shaker Shelves are set in specific locations standard at the factory, but are designed to easily relocate.						

OPTIONS & ACCESSORIES

While every precaution is taken to avoid susceptibility to contamination, an easy-to-use, maintenance-free **decontamination cycle** is optional for added peace of mind. It is a 90°C moist heat cycle and includes a drying phase that pumps HEPA filtered air into the incubator, resulting in a clean, dry incubator.

Relative Humidity. Depending on your application, two humidity options are available:

- 1) Caron's earth-friendly gVapor provides precisely controlled atomized humidity with display readout.
- 2) Optional elevated humidity is provided via a water pan that slides out, making it easy to fill and clean.

Individual products spec charts on previous pages provide model-specific part numbers. Decon and humidity options are factory-installed at the time of order.

THESE OPTIONS MUST BE FACTORY INSTALLED AT TIME OF INITIAL ORDER

Part No.	Description
DECN301	90°C moist heat decontamination cycle.
GASG302	Built-in gas guard detects low gas pressure and automatically switches from primary to secondary tank.
HUMD307	gVapor, earth-friendly controlled humidity system, ambient to 95% RH, includes humidity display and readout.
PORT301	Additional 2" access port.

FACTORY INSTALLED AT THE TIME OF ORDER OR CAN BE RETRO-FITTED IN THE FIELD BY A QUALIFIED TECHNICIAN.

Part No.	Description
ALRM302	Remote alarm contacts. Provides NO and NC dry contacts for alarms.
DOOR310	Light tight door cover, 25 ft ³ sizes.
DOOR312	Light tight door cover, 33 ft ³ sizes.
HUMD305	Elevated humidity via water pan system; 7401 Models.
HUMD306	Elevated humidity via water pan system; 7402 & 7403 Models.
LGHT602	UV Germicidal lamp deactivated microorganisms in-line with controlled humidity water supply (requires HUMD307).
LOCK301	Outer door lock.
OUTP302	Universal analog output (0-5V, 4-20mA). Provides 2 connections for monitoring temperature and humidity or CO ₂ .
OUTP303	Universal analog output (0-5V, 4-20mA). Provides 3 connections for monitoring temperature, humidity & CO ₂ (requires optional elevated or controlled RH).

REQUIRES CUSTOMER ASSEMBLY/INSTALLATION

Part No.	Description
REGL101	CO ₂ tank regulator. Two-stage with range of 0-2,000 PSI. Dual pressure gauges with barbed hose connection. Equipped with rotary shutoff valve.