

YORK WATER JACKET CO₂ INCUBATOR

Model No.: YSI-449(EXWJ)



Specifications:

- YORK Co₂ Incubators are designed for wide range of applications in biomedical, pharmaceutical and clinical laboratories i.e labs all YORK Co₂ Incubator feature an option of selection between SS 304 and alloy interior with inherent germicidal protection against contamination and Direct Heat or Air jacket/Water jacket temperature control for accurate, uniform in vitro modeling of the in vivo environment.

Continuous Contamination Control UV Light. The Co₂ incubator incorporates a Programmable Ultraviolet Lamp, isolated from cell cultures, that sterilizes conditioned air and humidity water reservoir water to avoid contamination without disturbing cell cultures in vitro.



SS 304 Construction for Germicidal Protection.

- Stainless steel alloy interior surfaces eliminate contamination sources and mitigate the affects of airborne contaminants introduced through normal use. Outer solid door with inner glass door for observation.

Direct Heat and Air Jacketed Heating System.



The Direct Heat and Air jacket surrounds the inner walls with a natural convection air flow that converts to radiant wall heat through thermal conduction.

This technique achieves accurate, uniform and highly responsive temperature control within the chamber.

Infrared Co₂ Control System.



The YORK dual beam infrared Co₂ system is linked to microprocessor controller with a sophisticated PID algorithm. This ensures Ultra-Fast recovery without overshoot and accurate Co₂ averages during periods of frequent Co₂ incubator access with multiple door openings.

Control, Alarm And Monitoring

All instrument functions including the temperature, Co₂ % and Humidity % of the incubator are programmable with a facility for a settable alarm for each parameter.

- The easy to read 4 line blue LCD display with all set and process temperature, Co₂, and Humidity % and visual alarm for each parameter incorporated.

Rapid Response Class 100.

- Product yields and reliability can be affected by airborne contamination costing you time and money. Class 100 HEPA Filter Flow System (optional) air quality contributes to an ideal culturing environment.

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- Capacity 150,200,250, 350, 550, 650,750 Liters
- Water Jacket Volume 10-15L
- Temperature Control $\pm 0.1^{\circ}\text{C}$
- Range 5°C above ambient to 60°C
- Uniformity ± 0.2 or 0.3°C @ 37°C (98.6F)
- Environment temp. 10°C - 35°C
- Tracking Alarm User-Programmable high / low Over Temperature
- Programmable speed Time/speed/temp.
- Shaker Speed accuracy ± 1
- Shaker Speed Increment ± 1
- Sensor RTD (Pt100)
- Readability & Stability 0.1%
- Function Shuts of heat
- Temperature Safety Sensor Independent RTD (PT 100)
- Controller Independent Micro Controller

Sterilization Cycle(Optional)

- Sensor 24 hours time
- Sensor RTD (PT100)
- Cycle Temperature 140°C (284F)
- Cycle Length 12 hours

Co₂

- Control Better than $\pm 0.1\%$
- Range 0-20%
- Inlet Pressure 15 PSIG (1.0 bar)
- Sensor IR
- Readability and Stability $\pm 0.1\%$
- Tracking Alarm User Programmable.

Humidity

- RH Ambient to 90% @ 37°C (98.6F)
- Humidity Pan 5.0 liters
- Display In % increments
- Working Environment $< 80\%$

Fittings

- Access Port 1.3" (3.3 cm) with removable silicon plug with filter
- Co₂ Inlet 1/4" hose
- Unit Heat load 500 watts

Shelves

- Dimension As per chamber size
- Construction 304 Stainless Steel, Perforated
- Surface Area 1.55 sq.ft. or as per inner

- Max. per Chamber

chamber capacity
22.5 sq. ft./ or as per inner
chamber capacity

Construction

- Interior Type 304, polished Stainless Steel.
- Exterior 18 gauge, cold-rolled steel, powder coated.
- Outer Door Gasket Four-sided, molded, magnetic vinyl.
- Inner Door Gasket Removable, cleanable Feather-edged, Silicone

Electrical

- Operating Voltage 230V, 50Hz
- Data Outputs RS232/RS485, Printer Output (optional)

Dimensions

- Interior cap.: 125, 150, 200, 250, 350, 550, 650 & 750 L
- Incubator chamber individually-controlled heating circuits in every wall-aided (6 sided direct heating)
- "Fan Less" design to reduce chance of contamination, reduce noise level, minimum air turbulence and bigger usable capacity.
- Heating system - Microprocessor controlled heating elements.
- Fast CO₂ recovery of less than 5 min after 30 sec single door opening and closing event.
- System BMS relays built in.
- Working altitude sea level- 2,400m.
- Separate single inner glass door with an option to Retrofit/field upgrade with 4 or 5 segmented inner glass doors later
- Option to Retrofit/field upgrade to change Door handle position later.

Atone glance

- Compact, Ergonomic Overall Design
- Direct Heat and Temperature Control
- SS enriched Contamination resistant interiors
- UV protection for Contamination Control
- Precise P.L.D Enhanced CO₂ recovery
- High performance Control, Monitoring and Alarm Functions
- Infra Red CO₂ sensor
- Menu driven through microprocessor
- User Selectable single/profile control mode
- In built Real Time Clock
- Adjustable, perforated stainless steel shelves, No of shelves 3 shelves
- Data Retentive Time for both UV and process
- Interior lighting - LED

Optional Accessories:

- Co₂ gas cylinder 50kg
- Co₂ cylinder dual stage Regulator & connection tube.