IN-VITROCELL ES

WATER JACKET CO_2 INCUBATOR

NU-8600 Stacked

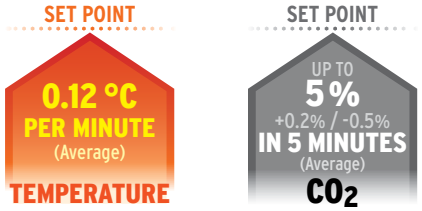
NU-8631

The In-VitroCell ES (Energy Saver) NU-8600 series is a CO2 Incubator designed to deliver a reliable controlled In-vitro environment for optimum tissue cell culture growth by offering uniform temperature control by heating water surrounding the growth chamber, providing precise CO2 gas control, and minimizing potential contamination through HEPA filtration.

Temperature Uniformity the growth chamber is surrounded by heated water and monitored using dual temperature sensor probes. Model NU-8600 offers temperature uniformity within 0.20°C at 37°C.

CO_2 Gas Accuracy - using a dual wave infrared (IR) sensor that is insensitive to other components, such as water vapor, the chamber maintains CO_2 levels accurate within 0.1%.

Growth Condition Recovery – Quicker and more stable, In-VitroCell CO_2 Incubators recover gas and temperature back to set point faster than other CO_2 Incubators.



Features

Constant Contamination Control

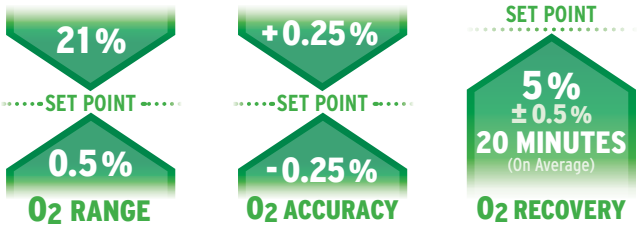
Closed Loop HEPA Filtration – Maintained at positive pressure, gas and air entering the growth chamber continuously pass through 99.99% @ 0.3 microns efficient HEPA filters producing an environment similar to an ISO Class 5 clean room slowing airflow to one chamber volume air change per 30 minutes to minimize cell dessication.

Coved interior corners – A crevice-free interior is easier to clean eliminated potential growth areas within the chamber.

CuVerro Antimicrobial Surfaces add CuVerro® Antimicrobial Copper Shelving (optional) - to the incubator growth chamber and shelving to kill bacteria* to minimize potential contamination. CuVerro® is laboratory tested and EPA registered. CuVerro® Antimicrobial Copper Surfaces kill more than 99.9% of bacteria* within two hours, and continues to kill 99% of bacteria* even after repeated contamination and regular cleaning.

NuTouch Electronic Control System (ECS) – easily control system parameters with the touch of a finger. The NuTouch ECS is a user-friendly touchscreen LCD that allows for the control of parameters and offers status indicators, on screen instructions, and notifications to assist with proper use.

Hypoxic Conditions – models NU-8631 provides the ability to suppress oxygen in the growth chamber by injecting N_2 gas to meet set point by monitoring and controlling oxygen using a sensor.



Disclaimer: Laboratory testing shows that, when cleaned regularly, CuVerro surfaces kill greater than 99.9% of the following bacteria within 2 hours of exposure: Methicillin-Resistant Staphylococcus aureus (MRSA), Staphylococcus aureus, Enterobacter aerogenes, Pseudomonas aeruginosa, E. coli O157:H7, and Vancomycin-Resistant Enterococcus faecalis (VRE). The use of CuVerro® bactericidal copper products is a supplement to and not a substitute for standard infection control practices; users must continue to follow all current infection control practices, including those practices related to cleaning and disinfection of environmental surfaces. This surface has been shown to reduce microbial contamination, but it does not necessarily prevent cross contamination. CuVerro® is a registered trademark of GBC Metals, LLC and is used with permission.

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External HEPA Filtration

The NuTouch ECS offers on screen maintenance reminders such as filter replacement. Filters are easily accessible from the front of the CO_2 Incubator

Specifications

Model	Chamber Volume (Ft.³ / Liters)	Electrical*	Chamber Dimensions (W x D x H)	Exterior Dimensions (W x D x H)	Net Weight (Including full water jacket and shelving)
NU-86XX	5.65 / 160	115 VAC / 60 Hz E: 230 VAC / 50-60 Hz	20.375 x 20.625 x 24 in. 518 x 524 x 611 mm	25.625 x 27 x 37.75 in. 649 x 685 x 958 mm	403 lbs. / 183 kg

* Specify models with appropriate letter suffix for electrical specifications. "NU-8600E" for 230 VAC / 50-60 Hz

Model	CO_2 Sensor	RH (Humidity) Control	O_2 Control
NU-8600	Dual Wave Infrared (IR)	Water Pan, Convection	-
NU-8631	Dual Wave Infrared (IR)	Water Pan, Convection	Sensor (0.5 - 21%)

Shelving

Size: 18" x 18 ¾" (457 mm x 476 mm)
Supplied: 4 Shelves
Max. Capacity: 16 Shelves
Max. Weight Capacity: 25 lbs. (11.34 kg) per Shelf / 125 lbs. (56.69 kg) per Incubator

Features

Standard Features

- NuTouch Electronic Control System
- Closed Loop HEPA Filtration System
- 100% Stainless Steel Coved Interior Chamber
- Dual Temperature Sensor Probes
- Infrared (IR) CO_2 Sensor
- O_2 Control System (NU-8631)
- Four (4) Stainless Steel Shelves
- Eight (8) Stainless Steel Shelf Guides
- Four (4) Wall Brackets
- Heated External Right Hinged Door Swing (Field Reserveable)
- Inner Right Hinged Door Swing (Field Reserveable)
- Remote Alarm Output Contacts
  RJ-45 4 to 20 mA Analog Output
  RJ-11 Communication
  RS-485 Communication
- USB Port
- CO_2 Sample Port
- Water Fill Port
- Water Drain Valve
- Adjustable Leg Levelers
- Access Port
- One (1) Stainless Steel Water Pan
- One (1) 8 ft. / 2.5 m Electrical Cord

Optional Features

- Incubator Stacking Brackets
- Coiling Coils
- Additional Stainless Steel Shelves with Guide Brackets
- *CuVerro*® Antimicrobial Copper Shelving and Guide Brackets
- *CuVerro*® Antimicrobial Copper Water Pan
- Automatic CO_2 Tank Switch (External)
- Left Hinged Door Swing
- Gas Tight Sectioned Inner Door
- Platform with Castors
- Moisture Proof Duplex
- CO_2 Regulator (2 Stage)
- N_2 Regulator (2 Stage)
- CO_2 Analyzer Fyrite Kit (Dry) 0-20%
- Replacement Fluid for CO_2 Analyzer

Temperature Control System

Temperature Sensor Type: Precision Integrated Circuit

Default Set Point: 37°C

Chamber Temperature Range: 5°C to 55°C (5°C Above Ambient to 30°C Max. Ambient)

Chamber Temperature Uniformity: ± 0.20°C @ 37°C

Temperature Accuracy: ± 0.1°C

Temperature Recovery: 0.12°C/Minute Average

Temperature Display Resolution: 0.1°C

Minimum Qualifications for Sterilization:
145 DEG Cycle 135°C
95 DEG Cycle 85°C

Electrical Requirements

Startup Power: 625 watts

Running Power: 250 watts, 60 Hz

Heat Rejected: 14 BTU / min.

Utility Connections

Gas Connections: 0.25 in. (6.3 mm) Tubing Connections

Gas Input Pressure: 20 PSIG (1.4 BAR) Input Pressures Maximum. Two-Stage Gas Regulators Required.

CO_2 Control Systems

CO_2 Sensor Type: Infrared Single Source Dual Wave Length

CO_2 Control Logic: Fixed Algorithm / Manual Environmental Adaptable.

Default Set Point: 5%

CO_2 Range: 0.1 to 20%. (0.0 Set Point Idles System)

CO_2 Accuracy: ± 0.1%

CO_2 Recovery: Up to 5% -0.50% / +0.20% in 5 Minutes Average.

CO_2 Display Resolution: 0.1%

O_2 (NU-5731 / 5741)

Zirconia Ceramic Sensor

Default Set-Point: 21%

O_2 Range: 0.5 to 21%

O_2 Accuracy: ± 0.25%

O_2 Recovery: 5% ± 0.5% / 20 min.

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