



bmtusa.com

CO2 EVO INCUBATORS

Large Volume: CO2, Humidity & Temperature



EVO 404 (14.3 ft3)
Color Touch Screen
Controller & 160°C
Sterilization



EVO 707 (25 ft3)
Color Touch Screen
Controller & 160°C
Sterilization



EVO 222 (8 ft3)
Color Touch Screen
Controller & 160°C
Sterilization



EVO 1212 (43 ft3)
Color Touch Screen
Controller & 160°C
Sterilization



The **Climacell EVO** series, including large capacity **CO2 incubators** focused on constant and repeatable conditions for cell growth procedures, tissue, virology, and other culturing procedures. Full control of all chamber conditions with **humidity, controllable in 1% increments, temperature set in 0.1°C increments and patented air flow system controllable in 1% increments** for gentle convection. The **Drift-free infrared (IR) sensor** provides maximum reliability and measurement precision during the entire process. Thanks to the **5-layer insulation**, maintaining inner chamber conditions is assured. As well the inner glass door is sealed, allowing for full viewing of the inner chamber. The outer door is insulated with its' own external door gasket. This design also eliminates **condensation** on the inner glass door and walls

Volume 111 (4 ft3), 222 (8 ft3) 404 (14.3 ft3) 707 (25 ft3) 1212 (43 ft3)
Color touch screen control with Fuzzy Logic microprocessor

CO2 Sensor Drift Free Infrared (IR) sensor

Sterilization 160°C Dry Heat sterilization cycle

Double wall chamber (Main & Inner) Removable inner chamber for sterilization

Working temperature 0°C up to 100 °C. With Humidity 10°C to 100°C

Controlled Humidity up to 98% and active dehumidification

Sealed Inner Glass Door to eliminate loss of chamber conditions

Heated Doors to eliminate condensate

CO2 Concentration 0.1% up to 20%

Access port options 25 mm (1"), 50mm (2") or 100mm (4")

Chamber Pharmaceutical Grade AISI 304 seamless with rounded corners

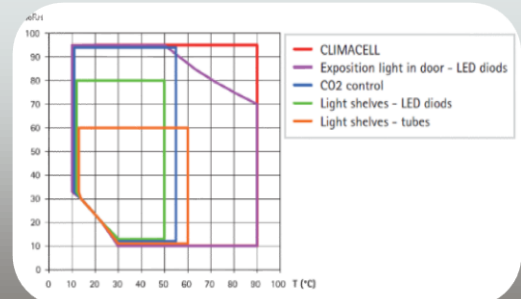
HEPA filter on incoming CO2 gas tubing

CO2 EVO Features

- Fuzzy Logic "learning logic" microprocessor
- large color touch screen display, simple icon navigation
- continuous indication of actual temp., CO2 concentration, humidity, time & alarm limits
- automatic water feed from RO water tank
- audio and visual alarm
- infrared drift free CO2 sensor
- independent safety thermostat
- 30day data logger event log of all relevant data
- SD card system saving data in CSV format
- closed chamber, precise uniformity, leading to quicker recovery times.
- RS 232 communication port
- HEPA filter on incoming CO2 / NO2 tubing
- seamless chamber with rounded corners
- inner chamber fully removable for chamber sterilization
- 5 layers of insulation for precise internal chamber uniformity
- on board data-logging with graphs
- high process security – users protected by passwords (5 users, 1 admin)

Options

- communication module: USB, Ethernet & WiFi
- automatic CO2 tank change over manifold
- single & two stage CO2 regulators
- stainless stacking frames for models 111 & 222
- Ethernet adaptor for RS232
- Warmcomm Software 4.0 with FDA version
- BMS relay alarm
- oxygen control 1-19 %
- IQ/OQ protocols with 9 point temp. mapping
- dynamic library interface for data
- inner socket
- protocol printer with 10 years ink well



Climacell CO2 EVO Technical Data		Model	111	222	404	707	1212
Interior dimensions Chamber: stainless steel AISI 304 AISI 316 available as option	volume	ft3	3.9	7.8	14.3	25	43
	width	liters	111	222	404	707	1212
		inches	21.25	21.25	21.25	37	3 x 21.25
	depth	mm	540	540	540	940	3 x 540
		inches	14.6	20.5	20.5	20.5	20.5
	height	mm	370	520	520	520	520
inches		20.9	29.9	55.6	55.6	55.6	
Volume of the steam generator capacity		ft3	5.9	10.8	18.7	31	62.9
		liters	167	305	530	878	1781
Shelves: stainless steel	# of shelf guides in chamber side walls	maximum #	7	10	19	19	3 x 19
		standard #	2	2	2	2	6
Shelf distance	min. distance between trays	inches	2.8	2.8	2.8	2.8	2.8
		mm	70	70	70	70	70
Useable shelf area	width x depth	inches	20.5x13.3	20.5x19.1	20.5x19.1	36.3x19.1	
		mm	520x338	520x485	520x485	920x485	
Outer metal doors		No.	1	1	1	2	3
Inner glass doors		No.	1	1	1	2	3
Maximum shelf load	one shelf	lbs	44	66.1	66.1	110.2	66.1
		kg	20	30	30	50	30
	total per unit	lbs	110.2	154.3	220.5	286.6	661
		kg	50	70	100	130	300
Electric parameters: EVO 0°C Protective system: 16 Amp minimum	max consumption	W	2050	2100	3150	3400	-
	50/60 Hz	V	230	230	230	230	230
		IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Electric parameters: EVO -20°C Protective system	Max consumption	W	1630	1780	2115	2640	3215
	50/60 Hz	V	230	230	230	230	230
		IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Temperature Data	from 0.0°C to °C		0 °C - + 100	decontamination	160°C		
Operation Temperature	From -20°C to °C		-20 °C - + 100	decontamination	160°C		
Working temperature Temperature accuracy in the chamber ...Distribution ...Uniformity Heating up time from ambient temp., Cooling down time Recovery time after 1 min. door open Relative Humidity	range °C		0 -- 99.9	0 -- 99.9	0 -- 99.9	0 -- 99.9	
	at 10°C	± °C	<0.5	<0.5	<1	<1	<1.5
	at 37°C	± °C	<0.5	<0.5	<1	<1	<1.5
		± °C	<0.2	<0.2	<0.3	<0.4	<0.8
	to 37°C from 22°C - 10°C	min.	20	25	26	27	30
		min.	<21	<21	<21	<21	<21
at 37°C at 50°C	min.	4	4	4	4	4	
	min	4	4	4	4	4	
range	%	10%-95%	10%-95%	10%-95%	10%-95%	10%-95%	
Heat Emission	at 37°C	W	70	97	123	148	200
External dimensions (including door/Handle, feet / rollers)	width	inches	30.7	30.7	43.1	59.2	103.5
		mm	780	780	1100	1500	2360
	depth	inches	29.7	34.8	34.8	34.8	34.8
		mm	755	885	885	885	885
	height	inches	46.3	57.2	74.3	74.3	75.2
		mm	1177	1452	1888	1888	1910
Weight Climacell EVO 0°C	net	lbs	242.5	309	529	617	-
		kg	110	140	240	280	-
	gross	lbs	309	390	617	719	-
		kg	140	177	280	326	-
Weight Climacell EVO -20°C	net	lbs	264.5	331	551	639	750
		kg	120	150	250	290	340
	gross	lbs	331	412	639	741	871
		kg	150	187	290	336	395
CO2 Concentration		%	0.1 - 20	0.1 - 20	0.1 - 20	0.1 - 20	-0.1 - 20
CO2 Required Pressure		Bar / psi	0.3-0.7 / 5 -- 10	0.3-0.7 / 5 -- 10	0.3-0.7 / 5 -- 10	-0.3-0.7 / 5 -- 10	-0.3-0.7 / 5 -- 10

Note: All technical data is related to 22 °C ambient temperature and +/- 10% voltage swing (if specified). For other parameters see section: Electrical connections. Temperature and humidity variation occurs in the case of consistent air-flow during operation.

- No more than 50% of the tray should be filled in order to facilitate uniform air circulation inside the chamber
- MMM / BMT reserve the right to changes in design and manufacture of the device

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