



bmtus.com

CLIMACELL

Stability, Photostability, Growth, Incubator, Environmental Chamber

ASSURING YOUR QUALITY

Pharmaceutical grade U.S. & European components



Pharmaceutical & Bio Tech

Stability testing and photo stability testing



Insect Research

Simulating conditions for organisms, aquaculture, a wide variety of insects, including drosophila, butterflies, algae bacteria and fungus



Food Science

Stability testing and photo stability testing of food products including shelf life studies



Beverages & Packaging

Stability and durability testing of dairy, soft drinks, waters, beer, wine, distilled products including packaging.



Cosmetics

Stability and durability testing of cosmetic products



Plant Growth

Simulating environmental conditions for agricultural applications; germination, Arapidopsis, green plant growth, plant tissue culture, crops and fruits



Aerospace, Auto, Industrial

Testing of materials quality and durability; adhesives, textiles, seals, composites, components & electronics



Climacell 404 (14.3 ft3)



Climacell 222(8 ft3)

The **CLIMACELL** series was developed to create exact and reproducible simulation of a wide range of environmental conditions for the testing of pharmaceutical products, plant tissue, shelf-life testing of components & materials. This includes stability, photostability, incubation, plant growth & insect rearing. The Climacells' stainless steel (AISI 304) double-wall chamber design (main & inner chamber) allows for long life expectancy of the unit and facilitates the easy cleaning and sterilization of the chamber. Combine these features with controllable lighting & the BMT patented air-flow system, humidification steam generator & dehumidification creates precise conditions & validated process.

Forced Air Convection: Patented Air flow system

Chamber Sizes: Liters (Ft3) 111 (3.9), 222 (7.8), 404 (14.3), 707 (25)

Working Temperature Range:

W / out humidity **0.0 °C up to 99 °C**

W / humidity: **10 °C up to 90 °C**

Humidity Range: 10 – 95%, controlled in 1% increments

Lighting:

VIS shelf & door lighting – fluorescent tube

UV shelf lighting. UV / VIS Q1B shelf lighting

111 & 222 – up to two (2) shelf lights

404 & 707 – up to three (3) shelf lights

Power: 230V 50 / 60Hz

Features

- removable inner chamber for cleaning and sterilization
- AISI 304 seamless stainless steel chamber w/ rounded corners
- stainless steel shelves
- 5 layers of insulation
- RS 232 – interface for printer or PC-communication. Ethernet optional
- acoustic and visual alarms
- humidity dosing in 1% increments
- digital safety thermostat
- program temperature ramps heating sequences
- patented air flow and adjustable forced air fan rate 1 to 100 %
- water tank with automatic pump
- smart handle with 4 point locking
- exterior door (insulated), inner glass door

Comfort Control Panel



- microprocessor controlled humidification and de-humidification
- 6 programs – 40 segments – for varying loads and parameters
- chip card system for individual program storage
- time range 0 – 16 years with 1 min. intervals
- clear user friendly LCD display
- program temperature ramps & heating sequences
- delayed heating start and stop

Lighting (optional)

- VIS shelf & door lighting
- UV shelf lighting
- UV & VIS combination lighting for ICH Q1B photostability testing
- lighting is fluorescent tube lighting

Options

- -9.9 °C & Automatic Defrost
- VIS light measurement w/data output - 10 - 70°C
- access ports mm 25 (1"), 50 (2"), 100 (4")
- automatic door lock or standard key lock
- left door versions (excluding 707)
- programmable water proof inner socket
- BMS relay alarm contact
- separate PT 100 sensor
- WarmComm communication software
- Stainless steel exterior
- AISI 316 stainless steel chamber

Climacell Technical Data		Model	111	222	404	707
Interior dimensions Chamber: stainless steel	volume	ft3	3.9	7.8	14.3	25
		liters	111	222	404	707
	width	inches	21.25	21.25	21.25	37
		mm	540	540	540	940
	depth	inches	14.6	20.5	20.5	20.5
		mm	370	520	520	520
	height	inches	20.9	29.9	55.6	55.6
		mm	530	760	1410	1410
Volume of the steam space		ft3	5.8	10.6	18.5	31
		liters	163	299	524	876
Shelves: stainless steel	# of shelf guides in chamber side walls	max. number	7	10	19	19
		standard #	2	2	2	2
Shelf distance	min. distance	inches	2.8	2.8	2.8	2.8
	between trays	mm	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
Inner glass doors		No.	1	1	1	2
Maximum shelf load	one shelf	lbs	44	66.1	66.1	110.2
		kg	20	30	30	50
	total per unit	lbs	110.2	154.3	220.5	286.6
		kg	50	70	100	130
Electric parameters	max consumption	W	50	70	100	130
	Protective system	V	230	230	230	230
		IP 20	IP 20	IP 20	IP 20	IP 20
Working temperature	range °C		0 -- 99.9	0 -- 99.9	0 -- 99.9	0 -- 99.9
Temperature accuracy in the chamber Distribution	at 10°C	± °C	<0.5	<0.5	<1	<1
	at 37°C	± °C	<0.5	<0.5	<1	<1
Uniformity		± °C	<0.2	<0.2	<0.3	<0.4
Heating up time from ambient temp., Cooling down time	to 37°C	min.	24	25	26	27
	from 22°C - 10°C	min.	<21	<21	<21	<21
Recovery time after 1 min. door open	at 37°C	min.	4	4	4	4
	at 50°C	min	4	4	4	4
Relative Humidity	range	%	10%-95%	10%-95%	10%-95%	10%-95%
Heat Emission	at 37°C	W	70	97	123	148
External dimensions (including door/Handle, feet / rollers)	width	inches	30	30	39.8	57.5
		mm	760	760	1010	1460
	depth	inches	25.2	31.1	31/1	31/1
		mm	640	790	790	790
	height	inches	43.3	52.4	75.3	75.3
		mm	1100	1330	1910	1910
Weight	net	lbs	222.7	291	507	595.2
Climacell Technical Data		kg	101	132	230	270
	gross	lbs	288.8	372.6	696.2	696.7
		kg	131	169	270	316