



Durocell Eco

Natural Gravity Air Convection

Dry Heat Oven with INTERPON Protected Chamber



DUROCELL® natural gravity convection ovens produce precise temperature uniformity with gentle airflow. The chamber of the ovens are equipped with a highly resistant INTERPON coating that protects against aggressive substances like acids or alkaline liquids.

Ideal applications for DUROCELL® ovens include acidic and alkaline hydrolysis, extraction of non-flammable substances, heat decomposition, drying of solvents such as oils, lubricants, paints, and acids, and decomposition of soils and solid substances.



Drying of non-flammable chemicals, compounds & powders



Industrial material quality and durability testing: cement, paints, asphalt, construction plastics, adhesives, roofing products, etc.



Drying of solvents, including paints, biofuels, natural gas, oil, drying solvents



ECO Controller

3" LCD display

Fuzzy Logic algorithm constantly monitors chamber conditions and continuously optimizes parameters.

(9) programs with (2) segments each for varying loads and parameters

Audible & visual alarms – temperature & time

Data capture from device with addition of optional Warmcomm software

USB flash, device & RS232 ports. Optional Ethernet port

Integrated USB 30-day data logger for temperature measure: 222, 404, 707

Exhaust port

Digital control sensor and independent safety sensor

Delayed heating and start function

Temperature Range:

5°C above ambient up to 125°C

Patented Door Closing:

four-point patented door locking mechanism for exceptional seal of the door to the chamber

Chamber Volumes:

22 (.8 ft³) • 55 (2 ft³) • 111 (4 ft³) • 222 (8 ft³) • 404 (14.3 ft³)

Chamber Construction: Double Wall

- INTERPON coated AISI 304 stainless steel chamber and shelves
- Seamless main chamber with full removable inner chamber

Electrical Data:

115V 50/60Hz

INTERPON Coated Chamber & Shelves

- INTERPON coating of both the chamber and shelves

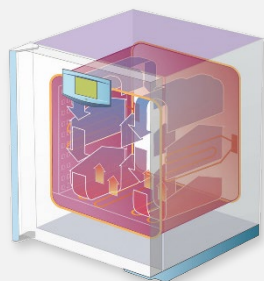


Optional Equipment:

- Access port, protected with INTERPON 50mm (2")
- Heavy load chamber
- Ethernet communication port
- Rolling carts for 22, 55, 111 & 222 models
- 4-20mA & BMS contacts
- Door sensor and alarm
- Automatic and key door lock
- Warmcomm data acquisition software:
 - ✓ 4.0B – Receive data
 - ✓ 4.0P – Receive data and control the device
 - ✓ 4.0F – FDA 21 CFR part 111 compliant
- BMS – Building monitoring alarm contact
- Flexible PT 100 sensor
- 304 or 316 AISI stainless steel exterior
- USB Flash drive, 30-day data logging: 22, 55, 111
- Inner electrical socket 230V
- IQ / OQ protocols with 9pt or 27pt temperature mapping

Durocell Technical Data		Model	22	55	111	222
Interior Dimensions Chamber: AISI 304 stainless steel (AISI 316 stainless steel option available)	Volume	ft ³	0.8	1.9	3.9	7.8
		liters	22	55	111	222
	Width	inches	9.4	15.7	21.3	21.3
		mm	240	400	540	540
	Depth	inches	13.8	14.6	14.6	20.5
		mm	350	370	370	520
	Height	inches	11.8	13.8	20.9	29.9
		mm	300	350	530	760
Exterior Dimensions (Including door and handle)	Width	inches	16	24.4	29.9	29.9
		mm	406	620	760	760
	Depth	inches	22	26.8	26.8	32.7
		mm	560	680	680	830
	Height	inches	24	26.8	33.9	42.9
		mm	610	680	860	1090
Shipping Dimensions	Width	inches	18.31	27.98	33.46	33.46
		mm	465	710	850	850
	Depth	inches	26.18	28.35	28.38	33.86
		mm	665	730	730	860
	Height	inches	25.79	35.43	42.52	52
		mm	655	900	1080	1320
Shelves: Stainless Steel	Capacity: # of shelf guides in chamber side walls	Maximum #	4	4	7	10
		# Included	2	2	2	2
Shelf Distance	Min. distance between trays	Inches	2.8	2.8	2.8	2.8
		mm	70	70	70	70
Useable Shelf Area	Width x Depth	Inches	7.3x10.4	15x13.2	20.5x13.2	20.5x19.1
		mm	185x265	380x335	520x335	520x485
Maximum Shelf Load	Per shelf	lbs	22	44	44	66
		kg	10	20	20	30
	Total Per Unit	lbs	55	110	110	154
		kg	24.9	49.9	49.9	69.9
Doors		No.	1	1	1	1
Operation Temperature	From 5°C above ambient	Up to °C	125	125	125	125
Temperature Deviation From Operation Temperature	Temperature Distribution	± % Temp.	2.7	2	2	2
	Uniformity	± °C	1	0.3	0.8	0.8
Time to Reach Temperature of 100°C with Closed Flap and 115V Power		Min	34	41	48	50
Air Exchange @ 100°C		Per Hour	6	8	12	5
Heat Emission @ 100°C		W	140	380	490	630
Noise Level of Complete Device		dB	0	0	0	0
Electrical Data (230V Option)	Max Consumption 50/60Hz	kW	.92	1.2	1.8	1.8
		W	920	1196	1794	1794
		A	8	1.4	15.7	15.7
		V	115 (230)	115 (230)	115 (230)	115 (230)
IP Code			IP20	IP20	IP20	IP20
Weight	Net	lbs	68.3	121.3	165.3	220.5
		kg	31	55	75	100
	Gross	lbs	79.4	145.5	191.8	255.7
		kg	36	66	87	116
BMT USA, LLC • 360.863.2252 • sales@bmtusa.com • www.bmtusa.com						

* The stated deviations of temperature are valid for the device in standard version without options, measured according to DIN 12880 in a steady state with an empty chamber.



Natural Gravity Convection System

Natural gravity convection heating system operates with no noise or vibration and provides gentle airflow and even temperature distribution throughout the chamber. The lack of a fan inside the chamber also reduces particle movement and power consumption.