

Vacucell

Vacuum Drying Ovens

Patented Servotherm Direct Heat Transfer System



Temperature:

Ambient +5°C up to 200°C (EVO 300°C)

Chamber Vacuum Rating:

5×10^{-4} mbar / 0.0005 mbar / 0.000375 Torr / 0.00001 inHg

Chamber Leak Rate:

5×10^{-3} mbar

Chamber Construction:

AISI 316 stainless steel, pressure resistant

Safety Doors:

- 2cm Ventiflex safety glass in the door releases in the event of over-pressure to prevent possible combustion
- 4-point patented door locks for secure door seal

Additional Features:

- Inert gas or air connection, max pressure 20 psi
- Needle valve for fine dosing
- Integrated 40mm port
- Connecting kit DN mm (ISO KF) 16
- (2) aluminum shelves included (optional stainless steel)

Electrical:

115V 50/60Hz

Optional Equipment:

- Stainless steel exterior, AISI 304 or 316
- ECO+: additional 6 program segments for a total of 8 segments and 9 programs
- Vacuum pump specific to user application
- Vacustation for housing the vacuum pump
- Ethernet communication port
- Flexible PT 100 temperature probe
- Door sensor and alarm
- Interior electrical socket, 115V
- BMS contacts (24V, 1A)
- 4-20mA contacts
- IQ/OQ protocols with 9pt. or 27pt. temperature mapping
- Warmcomm software:
 - 4.OB - data monitoring
 - 4.OP - data monitoring and control
 - 4.OF - FDA 21 CFR part 11 compliance

Vacucell vacuum ovens deliver fast, gentle drying of heat-sensitive compounds, solvents, and materials under controlled vacuum conditions, protecting product stability and integrity across pharmaceutical, lab, and industrial applications. The patented Servotherm direct heat transfer system conducts heat efficiently from electrically heated chamber walls through aluminum shelving directly to the load for uniform, rapid drying of sensitive materials. Compatible with a central vacuum source or the optional BMT Vacustation, a stackable cabinet for housing a dedicated vacuum pump.

Key Benefits:

- Fast drying of samples and solvents under gentle vacuum
- Pressure-resistant, pharmaceutical-grade AISI 316 stainless steel chamber
- Built-in safety features protect laboratory staff and the load



ECO Controller:

- 3" LCD display.
- Analog vacuum pressure display.
- Fuzzy Logic algorithm constantly monitors chamber conditions and continuously optimizes parameters.
- (9) programs with (2) segments each for varying loads and parameters.
- Real-time programming and cycling.
- Programmable audible & visual alarms - temperature and time.
- USB flash & device, RS232 & optional Ethernet port.
- Integrated USB 30-day data logger for temperature measurement & recording.
- Keypad lock against unauthorized access.
- Optional FDA CFR 21 part 11 compliance.



EVO Controller:

- 5.7" LCD touch display.
- Digital vacuum pressure display.
- Fuzzy Logic algorithm constantly monitors chamber conditions and continuously optimizes parameters.
- Vacuum pressure monitoring as low as 10 mbar - 0.1 mbar achievable with optional Pfeiffer sensor.
- (100) programs with (100) segments each for varying loads and parameters.
- Real-time programming and cycling with settings for temperature ramping.
- Fan adjustments in 1% increments.
- Programmable audible & visual alarms - temperature, time & humidity.
- Service programs for quick error diagnostics.
- USB device, RS232 & optional Ethernet port.
- Integrated SD card 30-day data logger & multi-level secure user authentication.
- Optional FDA CFR 21 part 11 compliance.

Vacucell Technical Data			22	55	111
Interior dimensions	Volume	cubic feet	0.8	2	4
		liters	22	55	111
	W x D x H	inches	13.4 x 10.2 x 11.8	15.7 x 12.6 x16.9	21.3 x 16.1 x 18.9
		mm	340 x 260 x 300	400 x x320 x 430	540 x 410 x 480
Exterior dimensions (including door and handle)	W x D x H	inches	22.1 x 19.7 x 30.7	24.4 x 22.1 x 35.8	29.9 x 25.6 x 37.8
		mm	560 x 500 x 780	620 x 560 x 910	760 x 650 x 960
Vacuum connection	Vacuum connection	DN mm	16	16	16
	Measuring port	DN mm	40	40	40
	Chamber vacuum rating	mbar	5 x 10 ⁻⁴	5 x 10 ⁻⁴	5 x 10 ⁻⁴
	Chamber leak rate	mbar.l.s ⁻¹	<5 x 10 ⁻³	<5 x 10 ⁻³	<5 x 10 ⁻³
Inert gas or air connection	Needle valve (ECO)	Ø mm	8	8	8
	Programmable filling (EVO)	Ø mm	8	8	8
Number of shelves		maximum	5	8	9
		included	2	2	2
Shelf distance	Min. Distance between trays	inches	1.41	1.7	1.7
		mm	36	43	43
Useable shelf area	W x D	inches	11 x 9.3	13.4 x 11.7	18.9 x 15.2
		mm	280 x 236	340 x 296	480 x 386
Maximum shelf load	Per shelf	lbs	44.1	55.1	55.1
		kg	20	25	25
	Total per unit	lbs	77.2	99.2	143.3
		kg	35	45	65
Doors		#	1	1	1
Working temperature	From 5°C above ambient	up to °C	200 / 300	200 / 300	200 / 300
Temperature deviation from working temperature with aluminum shelves (pressure 5-10 mbar)	Temperature distribution @ 100°C	± °C	2	2	3
	Temperature distribution @200°C	± °C	5	6	7
	Uniformity	± °C	0.4	0.4	0.4
Temperature deviation from working temperature with stainless steel shelves (pressure 5-10 mbar)	Temperature distribution @ 100°C	± °C	10	10	11
	Temperature distribution @200°C	± °C	18	23	26
	Uniformity	± °C	0.5	1	1
Time to reach temperature with aluminum shelves and 230V power	Up to 100°C	minutes	60	65	110
	Up to 200°C	minutes	80	85	130
Time to reach temperature with stainless steel shelves and 230V power	Up to 100°C	minutes	130	140	170
	Up to 200°C	minutes	170	180	220
Heat emissions	@ 100°C	watts	150	260	370
	@200°C	watts	300	520	750
Noise level of complete device		dB	0	0	0
Electrical data (230V option available)	Max consumption 50/60hz	kW	0.8	1.2	1.8
		watts	805	1208	1806
		amps	7	10.5	15.7
		volts	115	115	115
IP code			IP20	IP20	IP20
Weight	Net	lbs	143.3 / 149.9	216.1 / 222.6	286.6 / 293.2
		kg	65 / 68	98 / 101	130 / 133
	Gross	lbs	167.5 / 200.6	244.7 / 410.1	319.7 / 480.6
		kg	76 / 91	111 / 186	145 / 218

*ECO Value / EVO Value