VACUCELL EVO

Dry-Heat Vacuum Oven 300°c

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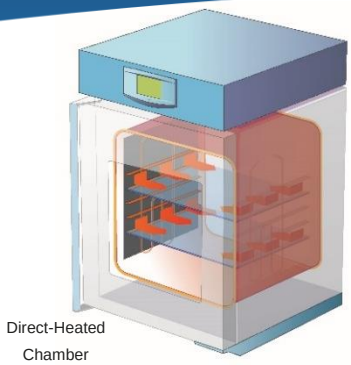
Pharmaceutical
Removal of solvents from powders and chemicals

Research & Laboratory
Drying combustible substances and powders

Chemistry
Drying-off solvents from granules, compounds and powders

Aerospace / Automotive
Testing of materials durability, component drying-off solvents, drying seals and ageing

Industrial
Testing of Components & Materials



Direct-Heated Chamber

Optional **Vacustation** for Vacuum pump

The **Vacucell** EVO vacuum direct heat drying oven is ideal for temperature sensitive, easily decomposable or oxidative materials, which must be dried in a very careful process under vacuum. The Vacucell EVO is also used for drying off solvents from chemicals and powders. As well complex components with inaccessible spaces are dried quickly & effectively using the patented Servotherm conductive heat transfer shelves. The oven is designed to be connected to a central vacuum source or can be equipped with a vacuum pump in the Vacustation for a complete stand-alone system (stacked unit pictured)

Vacuum EVO Dry-Heat Oven

Chamber Volumes 22 (.8 ft3), 55 (2 ft3), 111 (4 ft3)
Working temperature 5°C above ambient up to 300°C
North American device temperature up to 300°C
Chamber AISI 316 Stainless steel, vacuum to 0.005mbr
Door window in both Vacuum chamber & Vacustation
Integrated duct for sensors etc. (40 mm)
Inert gas connection
Needle valve for fine dosing
Pressure resistant inner chamber
Door designed with safety **VENTIFLEX** glass
Smart Door Handle with 4 point locking

Servotherm -Patented Heat Transfer System

Fast and uniform heat transfer to the media under any pressure conditions. A key element of our simple but intelligent direct heat design is that the entire chamber is heated by powerful elements fixed to the exterior of the chamber. Heat is conducted from the entire chamber to the chamber brackets, then to the precisely milled aluminum shelves (stainless steel optional). Heat is then passed to the media. A benefit of the Vacucell EVO 316 AISI stainless steel chamber is the shelf brackets are removable allowing for the easy cleaning and sterilization of the entire chamber.

EVO Control Panel

- LCD touch screen with graphic interface with fuzzy logic microprocessor ensures no temperature overshooting during the heating process. 30 Day data - logging
- up to 100 programs of up to 100 segments of varying loads and parameters
- yearly data logger in graphic and CSV
- on and off line data export
- password protected against unauthorized use
- SD memory card for data storage
- RS 232 and USB host for printer or PC
- digital Class 3 safety thermostat
- delayed heating start & stop function
- programming temperature ramps & cycles
- acoustic and visual alarms

Options

- stainless steel shelves and brackets
- digital vacuum control 0.1-1100mbr
- flexible temperature sensors, PT-100
- IQ/OQ protocols
- programmable inner socket 115V
- inner chamber light
- temperature verification 9point
- DLL data interface with external systems
- Vacustation cabinet for vacuum pump
- chemical resistant vacuum pump with inlet separator and exhaust condenser
- WarmComm communication software
- BMS relay alarm contact
- AISI 304 or 316 stainless steel exterior
- RS232 & USB Ethernet converter
- vacuum pump capacities to customers requirements along with the following typical requirements …
  2m3/h, 7mba
  3.4m3/h, 1.5mba

VACUCELL® EVO (VU EVO) 22, 55, 111					
Technical data Internal space - chamber, stainless steel DIN 1.4301 (AISI 316 Ti)	volume	cca l	22	55	111
	width	mm	340	400	540
	depth	mm	260	320	410
	height	mm	300	430	480
External dimensions (including door and handle, feet)	width	mm	560	620	760
	depth	mm	500	560	650
	height	mm	780	910	960
Package – dimensions (three-layer carton)	width	mm	730	980	980
	depth	mm	720	820	820
	height (incl. palette)	mm	1090	1290	1290
Weight	net	cca kg	68	101	133
	gross	cca kg	80	117	150
Shelves	shelves	max. No.	5	8	9
	standard equipment	psc.	2	2	2
	min. distance between screens	mm	40	40	40
	storage area	mm	280×236	340×296	480×386
Maximal load	for a shelf	kg	20	25	25
	total inside of device	kg	35	45	65
Number of outer metal doors		psc.	1	1	1
Electrical data 115V stock, 230V available	maximum power	W	805	1,208	1,806
	amperage	A	7	10.5	15.7
	mains 50/60 Hz	V	115	115	115
Protective system			IP20	IP20	IP20
Temperature data					
Working temperature	from 5°C above ambient	to °C	250	250	250
Temp. deviations acc. to DIN 12 880 from working temperature (All shelves, pressure 5-10 mbar) **	uniformity at 100°C	± °C	2	2	3
	uniformity at 200°C	± °C	5	6	7
	in time	± °C	0.4	0.4	0.4
Temp. deviations acc. to DIN 12 880 from working temperature (stainless shelves, pressure 5-10 mbar) **	uniformity at 100°C	± °C	10	10	11
	uniformity at 200°C	± °C	18	23	*
	in time	± °C	0.5	1	1
Time of rise onto 98% voltage 115V or 230 V – All shelves, pressure 5-10 mbar	up to temp. 100°C	min	60	65	110
	up to temp. 200°C	min	80	86	130
Time of rise onto 98% voltage 115V or 230 V – stainless shelves, press 5-10 mbar	up to temp. 100°C	min	130	140	170
	up to temp. 200°C	min	170	180	220
Heat emission	at 100°C	W	150	260	370
	at 200°C	W	300	520	750
Vacuum connection	vacuum connector	DN mm (KF)	16	16	16
	max. attainable vacuum	mbar	<5·10-4	<5·10-4	<5·10-4
	chamber leakage	mbar.l.s-1	<5·10-3	<5·10-3	<5·10-3
Measuring access port		DN mm (KF)	40	40	40

Note: All technical data is related to 22°C ambient temperature and +/- 10% voltage swing (if not specified)

- * Not measured
- ** Heat transfer to samples on the shelves under vacuum is performed through shelf leads. This is why the above stated temperature variations apply to temperature on shelf surfaces. The measuring sensors must be in perfect heat-conductive contact with the shelf surface. Samples placed on the shelves must also be in perfect contact with the shelves. The temperature of the samples depends primarily on their physical characteristics and on contact with the shelf.
- The values may differ depending on specific changes in the media parameters.
- Change in the design and make reserved

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