

VD series: Vacuum drying oven for non-flammable solvents

The VD series offers safe drying with homogenous temperature distribution, thanks to its APT.line™ air jacket system. Optimum heat transfer through patented expansion rack technology; the racks can be positioned as needed and are easy to clean. In addition to these many features, the units have an individually programmable controller.



► Performance features and equipment:

- Electronically controlled APT.line™ preheating chamber technology with 2 aluminum expansion racks
- Temperature range: 15 °C (27 °F) above ambient temperature up to 200 °C (392 °F) (optional up to 250 °C (482 °F))
- MP controller with 2 programs with 10 sections each, or alternatively 1 program with 20 sections
- The time interval of single program sections can be adjusted up to a maximum of 99:59 hours or 999:59 hours. This adjustment applies to all program sections.
- Digital temperature setting with an accuracy of one or tenth of a degree
- Adjustable ramp functions via program editor
- Integrated week program timer with real time function
- Elapsed time indicator
- Fine dosing ventilation valve
- Spring-mounted shatter proof safety glass panel
- Fine dosing inert gas valve with cross-flow technology
- Independent adjustable temperature safety device, Class 2 (DIN 12880), with visual alarm
- DN 16 measuring port in rear wall
- Analog pressure gauge (display pressure difference between the inner chamber and the ambient pressure)
- Electro polished inner chamber
- All suction and ventilation tubes, as well as the internally-welded pressure container, the removable rack support and the vacuum valve are made of stainless steel Mat. No. 1.4571 (V4A) / AISI 316 Ti
- Door gasket made of tempered silicone
- RS 422 interface for communication software APT-COM™ DataControlSystem, or switch over to printer output with RS 232 / RS 422 interface converter
- BINDER test certificate





	VD 23	VD 53	VD 115
▶ Exterior dimensions			
Width VD or vacuum module (mm/inch)	515 / 20.3	634 / 25.0	740 / 29.1
Height (inclusive feet/castors) (mm/inch)	655 / 25.8	775 / 30.5	900 / 35.5
Depth VD or vacuum module (mm/inch)	500 / 19.7	550 / 21.7	670 / 26.4
Height option vacuum module (mm/inch)	624 / 24.6	624 / 24.6	622 / 24.5
Total height VD and vacuum module (mm/inch)	1279 / 50.2	1400 / 55.2	1522 / 59.9
Plus door handle, connection (mm/inch)	100 / 3.9	100 / 3.9	100 / 3.9
Wall clearance rear (mm/inch)	100 / 3.9	100 / 3.9	100 / 3.9
Wall clearance side (mm/inch)	135 / 5.3	135 / 5.3	135 / 5.3
▶ Interior dimensions			
Width (mm/inch)	285 / 11.2	400 / 15.8	506 / 19.9
Height (mm/inch)	285 / 11.2	400 / 15.8	506 / 19.9
Depth (mm/inch)	285 / 11.2	330 / 13.0	450 / 17.7
Interior volume (l/cu.ft.)	23 / 0.8	53 / 1.9	115 / 4.1
Expansion shelves (Aluminium) (number standard/max.)	2 / 4	2 / 5	2 / 6
Distance between the racks (width x depth) (mm/inch)	53 / 2.1	62 / 2.4	68 / 2.7
Usable space per rack (width x depth) (mm/inch)	234 x 280 / 9.2 x 11	349 x 320 / 13.7 x 12.6	455 x 440 / 17.9 x 17.3
Load per rack (kg/lbs.)	20 / 44	20 / 44	20 / 44
Permitted total load (kg/lbs.)	35 / 77	45 / 99	65 / 143
Weight of the unit (empty) (kg/lbs.)	63 / 139	80 / 177	150 / 331
▶ Temperature data			
Temperature range, 15 °C (27 °F) above ambient up to (°C/°F)	200 / 392	200 / 392	200 / 392
Temperature variation ²⁾			
at 100 °C (212 °F) (± °C)	1.5	2	3
at 200 °C (392 °F) (± °C)	3	4.5	8
at 250 °C (482 °F) (± °C) (optional)	4	6.5	12
Temperature fluctuation ¹⁾ (± °C)	0.1	0.1	0.1
Heating up time ²⁾ switch setting II			
to 100 °C (212 °F) (Min.)	50	80	80
to 200 °C (392 °F) (Min.)	100	130	150
to 250 °C (482 °F) (Min.) (optional)	140	170	240
Vacuum connection with small flange (DN mm/inch)	16 / 0.63	16 / 0.63	16 / 0.63
Measuring access port with small flange (DN mm/in)	16 / 0.63	16 / 0.63	16 / 0.63
Inert gas connection with flow limiter - thread (RP")	3/8	3/8	3/8
Inert gas connection with flow limiter			
Adapter with hose olive (DN mm/inch)	8/0.31	8/0.31	8/0.31
Permitted end vacuum (bar / torr)	0.01 / 0.008	0.01 / 0.008	0.01 / 0.008
Leak rate (max. mbar 1/h / torr 1/h)	0.01 / 0.008	0.01 / 0.008	0.01 / 0.008
▶ Electrical data			
Housing protection acc. to EN 60529	IP 20	IP 20	IP 20
Nominal voltage (±10 %) 50/60 Hz (V)	230 / 115	230 / 115	230 / 115
Nominal power (W)	800	1200	1900
Energy consumption			
at 100 °C (212 °F) (W)	105	150	250
at 200 °C (392 °F) (W)	280	445	785
at 250 °C (482 °F) (W)	400	640	885

1) value with aluminium racks 2) up to 98 % of the set value

All technical specifications are specified for units with standard equipment at an ambient temperature of 25 °C (77 °F) and a voltage fluctuation of ±10 %. The temperature data are determined in accordance to factory standard following DIN 12880, part 2 respecting the recommended wall clearances of 10 % of the height, width and depth of the inner chamber. All indications are average values, typical for units produced in series. We reserve the right to alter technical specifications at all times.