

VDL series: Vacuum drying ovens with special safety concept

Safe drying in presence of combustible solvents. The extended safety package makes it extremely safe to dry substances with combustible solvent components. The VDL series carries the TÜV/GS mark as standard; the inner chamber is designed in compliance with the ATEX Directive for Zone 2. Optionally, the ovens can be upgraded in accordance with the European Directive 94/9/EC (ATEX Directive) for installation in a Zone 2 explosion hazard area. Inert gas can also be used for flushing the electrical installation space.



► Performance features and equipment:

- Electronically controlled APT.line® preheating chamber technology with 2 expansion racks
- Temperature range of 5 °C above room temperature up to 200 °C
- MS-controller with integrated timer 0 to 99 hours
- Program controller timer functions: delayed ON, delayed OFF, and temperature-dependent delayed OFF
- Adjustable ramp function via program editor
- Adjustable heat output (0 to 100 %)
- Pressure monitor for controlled heating release at < 125 mbar
- Pressure encapsulated instrument compartment with controlled overpressure by means of compressed air
- Flame protection gasket
- Fine dosing ventilation valve
- Fine dosing inert gas valve with cross-flow technology
- Spring-mounted safety glass pane with splinter protection
- Analog pressure gauge (displays interior pressure in relation to current ambient pressure)
- The electronically polished inner chamber, the suction and ventilation tubes, the pressure reservoir, the sliding shelf supports, and the ball-cock valve are all made of 1.4571 (V4A) stainless steel.
- Tempered silicone door gasket
- Adjustable safety device, Class 2 (DIN 12880), with visual temperature alarm
- DN 16 measuring port in rear wall
- Printer and communications interface RS 232 for communication software APT-COM® DataControlSystem





	VDL 23	VDL 53	VDL 115
▶ Exterior dimensions			
Width (mm/inch)	515 / 20.3	634 / 25.0	740 / 29.1
Height (inclusive feet/castors) (mm/inch)	649 / 25.6	768 / 30.2	894 / 35.2
Height with option vacuum module (mm/inch)	622 / 24.5	622 / 24.5	622 / 24.5
Total height with option vacuum module (mm/inch)	1271 / 50.0	1390 / 54.7	1516 / 59.7
Depth (mm/inch)	500 / 19.7	550 / 21.7	670 / 26.4
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 shelves (width x depth) (mm/inch)	53 / 2.1	62 / 2.4	68 / 2.7
Usable space per shelf (width x depth) (mm/inch)	234x280 / 9.2x11.0	349x320 / 13.7x12.6	455x440 / 17.9x17.3
Load per shelf (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, 5 °C/41 °F above ambient up to (°C/°F)	200 / 392	200 / 392	200 / 392
Temperature variation ³⁾			
at 100 °C (± °C)	2	2	3
at 200 °C (± °C)	4	4	6
Temperature fluctuation ³⁾ (± °C)	0.4	0.4	0.4
Heating up time ²⁾			
to 100 °C (Min.)	66	72	130
to 200 °C (Min.)	90	95	140
Vacuum connection with small flange (DN mm)	16	16	16
Measuring access port with small flange (DN mm)	16	16	16
Inert gas connection with flow limiter (RP)	3/8	3/8	3/8
Permitted end vacuum (mbar)	1x10 ⁻²	1x10 ⁻²	1x10 ⁻²
Leak rate (max.bar 1/h)	1x10 ⁻²	1x10 ⁻²	1x10 ⁻²
Pressure air connection for pressure-encapsulation (Ø mm)	8	8	8
Pressure air use (l/Min)	50	50	50
▶ Electrical data			
Housing protection acc. to EN 60529	IP 54	IP 54	IP 54
Nominal voltage (+ 10 %) 50/60 Hz (V)	230	230	230
Nominal power (W)	800	1200	1900
Energy consumption			
at 100 °C (W)	140	250	280
at 200 °C (W)	330	550	800

1) value without window 2) up to 98 % of the set value

All technical data are specified for units with standard equipment at an ambient temperature of + 25 °C and a voltage fluctuation of ± 10 %. The temperature data are determined in accordance to 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.