

## MDL series: High-efficiency drying oven, incorporating high-precision temperature control and programming

The MDL series operates at temperatures up to 350 °C at a flow of 400 l/min, ideal conditions for high temperature testing, e.g. in coil coating applications. The preheating chamber with the special Airflow Design feature simulates evenly distributed baking processes on specimens within extremely short periods, and the program control system offers 25 different programs with a variety of options.



### ► Performance features and equipment:

- Electronically controlled APT.line® preheating chamber technology
- Temperature range of 5 °C (9 °F) above ambient temperature up to 350 °C (662 °F)
- MCS controller with 25 storable programs of 100 sections each for a maximum of 500 program segments
  - User-friendly LCD screen
  - Easy-to-read menu guide
  - Integrated electronic chart recorder
  - Variety of options for the graphic display of process parameters
  - Real-time clock
- Heat output: 9.0 kW
- Silicone door gasket, resistant to high operating temperatures
- Adjustable ramp function via program editor
- Rear exhaust duct Ø 100 mm (3.9 inch)
- Replaceable fresh-air filter cartridge, Class F6 (EU6 fine-particle filter for particle sizes between 1 µm and 10 µm)
- Independent adjustable temperature safety device, Class 2 (DIN 12880) with optical and acoustic alarm
- Fresh-air monitoring with acoustic alarm and automatic shut-off of heating
- RS 422 interface for communication software APT-COM® DataControlSystem
- 2 chrome-plated shelves




**MDL 115**

<b>► Exterior dimensions</b>	
Width (mm/inch)	834 / 32.8
Height (inclusive feet/castors) (mm/inch)	800 / 31.5
Depth (mm/inch)	685 / 27.0
Plus door handle (mm/inch)	50 / 2.0
Wall clearance (mm/inch)	100 / 3.9
Wall clearance with open door (mm/inch)	160 / 6.3
Exhaust duct outer-Ø (mm/inch)	100 / 3.9
Steam space volume (l/cu.ft.)	156 / 5.5
<b>► Interior dimensions</b>	
Width (mm/inch)	600 / 23.6
Height (mm/inch)	435 / 17.1
Depth (mm/inch)	435 / 17.1
Interior volume (l/cu.ft.)	115 / 4.1
Shelves, chrome-plated (number standard/max.)	2 / 5
Load per shelf (kg/lbs.)	20 / 44
Permitted total load (kg/lbs.)	50 / 110
Weight of the unit (empty) (kg/lbs.)	90 / 199
<b>► Temperature data</b>	
Temperature range, 5 °C/9 °F above ambient up to °C/°F	350 / 662
Temperature variation	
at 70 °C (± °C)	2
at 150 °C (± °C)	3.4
at 300 °C (± °C)	7
Temperature variation with door flap	
at 70 °C (± °C)	2
at 150 °C (± °C)	3
at 300 °C (± °C)	8
Temperature fluctuation (± °C)	0.5
Heating-up time <sup>2)</sup>	
at 70 °C (Min.)	3.5
at 150 °C (Min.)	6
at 300 °C (Min.)	10
Recov. time after door was opened for 30 sec. <sup>2)</sup>	
at 70 °C (Min)	0.5
at 150 °C (Min)	2
at 300 °C (Min.)	4
Recov. time after door was opened for 30 sec. <sup>2)</sup> with door flap	
at 70 °C (Min.)	0.5
at 150 °C (Min.)	1
at 300 °C (Min.)	2
Air change (approx. x/min.)	3
Air circulation (approx. x/min.)	40
Exhaust air volume flow (approx. L/min. / m <sup>3</sup> /h)	400 / 24.0
Air flow velocity (m/sec)	0.8–1.2
Highest permitted solvent quantity (g)	6.65
(at T-180 °C, M-100 g/mol, U-40 g/m <sup>3</sup> , K = 0.5)	
<b>► Electrical data</b>	
Housing protection acc. to EN 50529	IP 33
Nominal voltage (± 10 %) 50/60 Hz (V)	400
Nominal power (W)	9000
Energy consumption	
at 70 °C (W)	400
at 150 °C (W)	1130
at 300 °C (W)	2083

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 (+ 77 °F) 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.