# Despatch

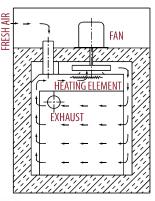
## **Thermal Processing Technology**

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## **♦ LAC High-Performance Oven**

With horizontal airflow for ultimate temperature uniformity

The LAC high-performance bench-top oven uses horizontal recirculating airflow to ensure uniform temperatures throughout the oven. A high-volume fan circulates air through perforated, stainless steel walls to create a constant horizontal airflow across all sections of the oven. The result is proven reliability in demanding production and laboratory applications such as curing, drying, sterilizing, aging and other process-critical procedures.



**Easy to clean and service.** Cleaning is easy due to the scratch-resistant, baked enamel exterior, 304 stainless steel interior, and smooth door surface. Servicing is easy due to convenient top access to the heater and fan.

**Superior quality.** The Despatch LAC features sturdy, welded, double-wall construction, three inches (7.6cm) of glass fiber insulation and heavy-duty gaskets. Each oven receives a thorough quality and performance test before it is shipped. Heating elements carry a five-year warranty. All models are UL/C-UL listed.

Oven control. Standard digital controls regulate temperatures within tight tolerances and provide high limit protection. For more advanced control choose the optional Protocol 3™ microprocessor-based temperature and hi-limit controller with large LCD display and real time clock for auto start capability. Protocol 3™ features three operating modes for quick and easy operation: Manual mode, Timer mode and Profile mode. The data-logging functionality enables reporting and analyzing and data files can be exported via the controller's USB port. Modbus RS485 communications are included for easy data access.



#### **FEATURES AT A GLANCE**

- Five sizes: 3.8 to 27 cu ft (107 to 765 liter)
- ◆ Maximum temperature of 260°C (500°F)
- Horizontal recirculating airflow
- High limit over-temperature protection
- Digital control with 3/4" (1.9cm) LED display
- Robust type 304 stainless steel interior
- ◆ 5 year heater warranty







#### **OPTIONS**

- Protocol 3™ control with integrated data logging capabilities and USB port for simple oven set-up and data export
- Door interlock switch turns off heater and fan when door is opened
- End-of-cycle and high-limit indicators
- Door with window and interior light
- ◆ 2" and 4" access port for test wires
- 208V full performance package
- Chart recorders
- Electric door lock
- Oven stand
- CE compliance
- Forced exhaust for faster moisture removal (not Class A)
- Reinforced shelves 200lb (91Kg) capacity (Not available for LAC1-38)

LAC	1-38 (120V)	1-38 (240V)	1-67	2-12	2-18	2-27
PHYSICAL SPECIFICATIONS						
Chamber size (width x depth x height)* Clear opening width is reduced by 1.5" (4 cm) due to .75" (2 cm) shelf supports.	19* x 18 x 19 in. 48* x 45 x 48 cm	19* x 18 x 19 in. 48* x 45 x 48 cm	24* x 20 x 24 in. 61* x 50 x 62 cm	24* x 24 x 36 in. 61* x 61 x 91 cm	36* x 24 x 36 in. 90* x 61 x 91 cm	32* x 29 x 52in. 81* x 74 x 132 cm
Capacity in cubic feet (liters)	3.8 (105)	3.8 (105)	6.7 (189)	12 (340)	18 (510)	27(765)
Overall size (width x depth x height)	31 x 27 x 38 in. 78 x 69 x 96 cm	31 x 27 x 38 in. 78 x 69 x 96 cm	36 x 29 x 43 in. 91 x 74 x 110 cm	36 x 33 x 55 in. 91 x 84 x 139 cm	47 x 33 x 55 in. 120 x 84 x 139 cm	45 x 37 x 83 in. 113 x 94 x 210 cm
Electrical single phase 50/60 HZ * Operating at 208V will result in a 25% reduction in heater output. (Unless conversion kit is used)	120 volts 16.3 amp Heater: 1.6 KW	240* volt 10.5 amp Heater: 1.8 KW	240* volt 12.4 amp Heater: 2.4 KW	240* volt 24.2 amp Heater: 4.8 KW	240* vo <b>l</b> t 24.2 amp Heater: 4.8 KW	240* volt 39 amp Heater: 8 KW
Number of shelves provided	2	2	2	2	2	2
Maximum number of shelves on 2 in. (5 cm) centers	9	9	11	17	17	25
Shelf dimensions (width x depth)	18.75 x 17.75 in. 48.6 x 45 cm	18.75 x 17.75 in. 48.6 x 45 cm	23.75 x 19.75 in. 60.3 x 50.2 cm	23.75 x 23.75 in. 60.3 x 60.3 cm	35.3 x 23.75 in. 89.7 x 60.3 cm	28.6 x 31.8 in. 72.6 x 80.8 cm
Exhaust diameter located on back	2.5 in. (6.4 cm)	2.5 in. (6.4 cm)	2.5 in. (6.4 cm)	(2x) 2.5 in. (6.4 cm)	(2x) 2.5 in. (6.4 cm)	6.75 in. (17.1 cm)
Cord and plug	NEMA 5-20	NEMA 6-15	NEMA 6-15	None - Hardwire	None - Hardwire	None - Hardwire
Number of doors	1	1	1	1	2	2
Approximate net weight	185 <b>l</b> bs (84 kg)	185 lbs (84 kg)	255 lbs (116 kg)	360 lbs (163 kg)	450 lbs (204 kg)	TBD
Approximate domestic shipping weight (export adds weight)	280 <b>l</b> bs (127 kg)	280 lbs (127 kg)	365 lbs (166 kg)	480 lbs (218 kg)	585 lbs (266 kg)	TBD
FUNCTIONAL SPECIFICATIONS						
Time to temperature with no load (40°C to 100°C)	9 minutes	6 minutes	6 minutes	7 minutes	5 minutes	20 minutes
Time to temperature with no load (40°C to 177°C)	-	-	-	-	-	22 minutes
Time to temperature with no load (40°C to 200°C)	35 minutes	25 minutes	26 minutes	18 minutes	20 minutes	28 minutes
Time to temperature with no load (40°C to 260°C)	60 minutes	45 minutes	40 minutes	35 minutes	45 minutes	27 minutes
Recovery time after door open for 1 minute (100°C) *	1 minute	1 minute	1 minute	1 minute	1 minute	1 minute
Recovery time after door open for 1 minute (200°C) *	6 minutes	4 minutes	3 minutes	6 minutes	4 minutes	6 minutes
Recovery time after door open for 1 minute (260°C) *	14 minutes	8 minutes	5 minutes	9 minutes	8 minutes	10 minutes
Temperature uniformity	+/- 1°C at 100°C, +/- 2°C at 177°C (2-27 model only) , +/- 2°C at 200°C, +/- 3°C at 260°C for all models					
Operating range with 20°C ambient	40°C-260°C (104°F-500°F) for all models					
Control stability	+/- 0.5°C on all models					
Repeatability	+/- 0.5°C	+/- 0.5°C	+/- 0.5°C	+/- 0.5°C	+/- 0.5°C	+/- 0.5°C
Maximum load capacity	175 <b>l</b> bs. (79 kg)	175 lbs. (79 kg)	250 lbs. (113 kg)	300 lbs. (136kg)	300 lbs. (136 kg)	600 <b>l</b> bs. (272 kg)
Maximum shelf capacity	50 <b>l</b> bs. (23 kg)	50 lbs. (23 kg)	50 lbs. (23 kg)	50 lbs. (23 kg)	50 lbs. (23 kg)	50 lbs. (23 kg)
Exhaust capacity (adjustable to)	12 CFM (5.6 <b>l</b> ps)	12 CFM (5.6 lps)	12 CFM (5.6 lps)	30 CFM (14.2 lps)	40 CFM (18.9 lps)	60 CFM (28.4 <b>l</b> ps)
Recirculating fan	1/4 HP 300 CFM (141 <b>I</b> ps)	1/4 HP 300 CFM (141 <b>l</b> ps)	1/4 HP 300 CFM (141 <b>I</b> ps)	1/2 HP (2-1/4 HP) 600 CFM (282 <b>l</b> ps)	1/2 HP (2-1/4 HP) 600 CFM (282 <b>l</b> ps)	1 HP
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Notes: Design uniformity figures are based on a nine-point test conducted in an empty oven after stabilization period. Minimum operating temperature and cooling times are based on 20°C ambient temperature measured at the fresh air inlet. Specifications are subject to change without notice. If the existing specifications differ from yours, ask about our customizing capabilities. \* Recovery time as measured at control thermocouple.

Warning: Despatch LAC Ovens (without Class A option) are not to be used with flammable solvents, combustible materials or enclosed containers.

#### SERVICE AND TECHNICAL SUPPORT

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#### **GLOBAL HEADQUARTERS**

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