



## The Despatch LCD Stackable Clean Process Oven

Defining the standard with the industry's first 350°C oven capable of Class100 operation throughout the process cycle. Designed for the production environment, Despatch's LCD Stackable Clean Process Oven has rugged, programmable process controls and an easily accessible HEPA filter. The LCD offers the ultimate in HEPA filtration for processes where minimal contamination is essential. The oven is SEMI S2 and CE compliant for universal acceptance and configured for 220/240 volts and 50/60 hz.

The LCD units are stackable to save valuable floor space and provide maximum ergonomic efficiency for operators. The recirculation motor is mounted at the rear of the oven, providing convenient access and allowing up to three ovens to be stacked on top of one another, while still keeping loading heights ergonomically acceptable.

It is available in two different atmosphere configurations:

**Air Atmosphere-** A forced exhaust fan is included on the air temperature unit for rapid cooling.

**Inert Atmosphere-** Allows nitrogen (or other inert gas) to be injected into the chamber to lower the oxygen level to prevent oxida-

tion of products. A water cooling coil is provided for rapid cooling. Control of nitrogen flow and water cooling is programmable through the Protocol Plus™ controller.

### Standard Features

- 350°C maximum temperature.
- Lockable Disconnect Switch on the control panel for easy servicing.
- Protocol Plus™ microprocessor control makes oven operation simple and flexible.
- Stainless steel interior with all interior seams continuously welded on the insulation side to protect the work chamber from contamination.
- Programmable door lock prevents operators from opening oven door when cycle is in process.
- Door Interlock switch turns off heater when door is open.
- Recirculated airflow is 100% HEPA (High Efficiency Particulate Air) filtered for Class 100 operation throughout the process cycle.
- Magnehelic™ gauge monitors the HEPA filter pressure drop so you know when it is time to replace the filter.
- Electric door release for ergonomic operation.
- UL & C-UL Listed open control panel.
- CE & SEMI S2 compliant.

### At a Glance

- *Model size: 1.6 cubic feet (45 liters).*
- *Maximum temperature: 350°C (662°F).*
- *Airflow: Horizontal recirculating.*
- *Recirculation air is 100% HEPA filtered for Class 100 operation throughout the process cycle.*
- *Protocol Plus™ microprocessor control.*
- *Stainless steel interior and exterior.*
- *Stackable to save valuable floor space.*
- *Silicone free version available.*
- *Standard options provide flexibility and quick delivery.*

## Standard Options

- Silicone-free construction.
- PC interface for remote input, monitoring and recording (RS485/422/232).
- Cleaning and triple bagging in clean room prior to shipment.
- Real time clock for programmed oven start-up.
- End of cycle and high limit audible and visual alarms.
- Process control interlock systems.
- Chart recorders.
- Three color process stack light.
- Teflon™ shelf supports.
- Stacking hardware.
- Skirted stands.
- Extra shelves.
- Data acquisition software.
- Oxygen analyzer.
- Customization available.

**Warning:** LCC ovens are not to be used with flammable solvents, combustible materials or enclosed containers. If your process involves flammable solvents, see the RFD model.

## LCD Physical Specifications

MODEL	ATMOSPHERE	CHAMBER SIZE INCHES (CM)			CAPACITY IN CU. FT. (LITERS)	OVERALL SIZE INCHES (CM)			ELECTRICAL SINGLE PHASE 50/60 HZ			SHELVES PROVIDED ON SHELF CENTERS	MAX. # OF SHELVES	APPROX. WEIGHT	
		WIDTH**	DEPTH	HEIGHT		WIDTH	DEPTH	HEIGHT	VOLTS	AMPS	KW			LBS. (KG) NET	LBS. (KG) SHIPPING
LCD 1-16 LCD 1-51	AIR	15(38) 23(58)	14(36) 20(51)	14(36) 20(51)	1.6(45) 5.1 (144)	32.5(83) 40.5(103)	35.5(90) 42.5(108)	21(53) 27(68)	240* 240*	14.8 27.7	3 6	2 on 2" 2 on 2"	5 8	250 (114) 380 (172)	350 (159) 525 (238)
LCD 1-16N LCD 1-51N	NITROGEN	15(38) 23(58)	14(36) 20(51)	14(36) 20(51)	1.6(45) 5.1(144)	32.5(83) 40.5(103)	35.5(90) 42.5(108)	21(53) 27(68)	240* 240*	14.0 27.7	3 6	2 on 2" 2 on 2"	5 8	250 (114) 380 (172)	350 (159) 525 (238)

\* Operating at 208V will result in 25% reduction in heater output.

\*\* Clear opening width is reduced by 1.5" due to 3/4" shelf supports on each side.

## LCD Functional Specifications

MODEL	ATMOSPHERE	TIME TO TEMP (minutes, w/ no load)				COOLING TIME TO TEMP (minutes, w/ no load)				TEMPERATURE UNIFORMITY AT				CONTROL STABILITY	OPERATING RANGE W/20°C AMBIENT	MAX LOAD CAPACITY LBS. (KG)	MAX SHELF CAPACITY LBS. (KG)	RECIRCULATING FAN	
		40-100°C	40-200°C	40-260°C	40-350°C	100-55°C	200-55°C	260-55°C	350-55°C	100°C	200°C	260°C	350°C					CFM	H.P.
LCD 1-16 LCD 1-51	AIR	7 5	30 27	45 35	60 50	35 40	65 75	75 85	90 100	± 1°C ± 1°C	±2°C ±2°C	±3°C ±3°C	±4°C ±4°C	±0.5°C ±0.5°C	40-350°C 45-350°C	200(91) 200(91)	50(23) 25(11)	240 435	1/4 1/4
LCD 1-16N LCD 1-51N	NITROGEN	7 5	30 27	45 35	60 50	30 † 25 †	55 † 40 †	60 † 45 †	80 † 50 †	± 1°C ± 1°C	±2°C ±2°C	±3°C ±3°C	±4°C ±4°C	±0.5°C ±0.5°C	35-350°C 35-350°C	200(91) 200(91)	50(23) 25(11)	240 435	1/4 1/4

† Based on cooling water supplied at 2 GPM, 16°C

Notes: Operating at 208V will result in reduction in heater output.

Specifications are subject to change without notice. If the existing specifications differ from yours, ask about our customizing capabilities.

Uniformity figures are based on a nine-point test conducted in an empty oven. Uniformity can vary slightly depending on unit and operating conditions.

Minimum operating temperature and cooling times are based on 20°C ambient temperature measured at the fresh air inlet

