

### ◆ LCC2-14 and LCD2-14 Clean Process Ovens Stainless steel interior and exterior



Despatch's LCC/LCD 2-14 clean process ovens are designed to meet the demands of production and large scale R&D environments. A variety of tailored options are available to meet your specific needs. Typical applications for these ovens include die-bond curing and other semiconductor packaging processes, depyrogenation, sterilization and drying for life sciences. The ovens are configured for 50/60 Hz and available in all voltages used around the world.

Where minimal contamination is essential, the LCC /LCD2-14 Series ovens offer the highest standards in HEPA filtration. Re-circulated airflow is 100% HEPA filtered for operation at ISO Class 5 (Class 100) or better within the oven chamber. This oven can be ordered without HEPA filtration.

#### FEATURES AT A GLANCE

- ◆ Available in 2 atmosphere configurations:  
**Air atmosphere:** Includes a forced exhaust fan for rapid cooling. **Nitrogen atmosphere:** Lowers oxygen to below 100ppm to prevent oxidation. Includes water cooling coil and program-mable control of the nitrogen and water.
- ◆ Stainless steel interior and exterior with all interior seams continuously welded on the insulation side to protect the work chamber from contamination.
- ◆ HEPA filtration— Recirculated airflow is 100% HEPA (High Efficiency Particulate Air) filtered for operation at ISO Class 5 (Class 100) throughout the cycle. Magnehelic™ gauge monitors the HEPA filter pressure drop so you know when it is time to replace the filter.
- ◆ Protocol 3™ control with large LCD display, integrated data logging capabilities and USB port for simple oven set-up and data export.
- ◆ Programmable door lock with electronic release prevents operators from opening oven door when cycle is in process.
- ◆ Lockable disconnect switch on the control panel for easy servicing.
- ◆ Modbus communications connection (RS485) for remote monitoring and recording.
- ◆ End of cycle and high limit audible and visual alarm, that can be seen and heard from a distance.
- ◆ UL & C-UL listed open control panel.

#### MODEL OPTIONS

- ◆ Maximum temperature of 260°C (500°F) with LCC2-14  
350°C (662°F) with LCD2-14
- ◆ With HEPA filtration (LCC/LCD2-14)  
(Can be ordered without)
- ◆ Air or Nitrogen atmosphere configurations



**LCC/LCD****2-14****PHYSICAL SPECIFICATIONS**

Chamber size (width x depth x height) *Clear opening width is reduced by 1.5 in. (3.8 cm) due to 3/4 in. (1.9 cm) shelf supports on each side.	25.5* x 26 x 37 in. 64* x 66 x 94 cm
Capacity in cubic feet (liters)	14 (396)
Overall size (width x depth x height)	47.5 x 41.5 x 71 in. 121 x 105 x 180 cm
Overall size (width x depth x height) for pass-through	50 x 44 x 74 in. 127 x 112 x 188 cm
Electrical: Three phase 50/60 HZ, 208 volts, 52 amps	Heater: 16 kW
Electrical: Three phase 50/60 HZ, 240 volts, 47 amps	Heater: 16 kW
Electrical: Three phase 50 HZ, 380 volts, 30 amps	Heater: 16 kW
Electrical: Three phase 50 HZ, 415 volts, 29 amps	Heater: 16 kW
Electrical: Three phase 60 HZ, 480 volts, 22 amps	Heater: 16 kW
Number of shelves provided	2
Maximum number of shelves	11 on 3" (7.62 cm) centers
Shelf dimensions (width x depth)	25 x 25.75 in. (63.8 x 65.4 cm)
Approximate net weight	955 lbs (434 kg)
Approximate domestic shipping weight (export adds weight)	1500 lbs (680 kg)

**FUNCTIONAL SPECIFICATIONS**

Time to temperature with no load (50° C to 100° C)	3 minutes
Time to temperature with no load (50° C to 200° C)	9 minutes
Time to temperature with no load (50° C to 260° C)	15 minutes
Time to temperature with no load (50° C to 350° C) *For LCD only, LCC max temp is 260° C	35 minutes
Cooling time to temperature with no load (100° C to 65° C) *Based on cooling water supplied at 3 GPM (11.4 lpm), 13° C	41 minutes (air atmos.) 15 minutes (nitrogen atmos.)*
Cooling time to temperature with no load (175° C to 65° C) *Based on cooling water supplied at 3 GPM (11.4 lpm), 13° C	82 minutes (air atmos.) 20 minutes (nitrogen atmos.)*
Cooling time to temperature with no load (260° C to 65° C) *Based on cooling water supplied at 3 GPM (11.4 lpm), 13° C	95 minutes (air atmos.) 25 minutes (nitrogen atmos.)*
Cooling time to temperature with no load (350° C to 65° C) (For LCD only, LCC max temp is 260° C) *Based on cooling water supplied at 3 GPM (11.4 lpm), 13° C	116 minutes (air atmos.) 30 minutes (nitrogen atmos.)*
Temperature uniformity at 100° C	+/- 1° C
Temperature uniformity at 175° C	+/- 2° C
Temperature uniformity at 260° C	+/- 3° C
Temperature uniformity at 350° C (For LCD only)	+/- 3.5° C
Control stability	+/- 0.5° C
LCD operating range with 20° C ambient - air (nitrogen atmosphere)	50° C-350° C (30° C-350° C)
LCC operating range with 20° C ambient - air (nitrogen atmosphere)	50° C-260° C (30° C-260° C)
Maximum load capacity	400 lbs (181 kg)
Maximum shelf capacity	50 lbs (23 kg)
1.5 HP recirculating fan	950 CFM (448 liter/sec)

**OPTIONS**

- ◆ Silicone-free construction
- ◆ Nitrogen atmosphere
- ◆ Door interlock switch turns off heater and fan when door is opened
- ◆ Chart recorders
- ◆ Three color process stack light
- ◆ Extra shelves
- ◆ Data acquisition software
- ◆ Non-HEPA filtration model
- ◆ CE compliance

**Notes:**

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

Class 100 HEPA filtration will limit ramp rates.

Minimum operating temperature and cooling times based on:

Air atmosphere based on 20° C ambient temperature measured at the fresh air inlet. Nitrogen atmosphere based on water flow rate of 3 GPM (11 LPM) at a temperature of 55 °F (13 °C).

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

**SERVICE AND TECHNICAL SUPPORT**

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