

FreeZone® 2.5 Liter Benchtop Freeze Dryers

Specifications



Application suitability:

- Light sample loads
- Limited floor space

All models feature:

- Upright stainless steel collector coil capable of holding 2.5 L of ice before defrosting. Collector lid, 3/4" thick, has neoprene gasket and 3" dia. port to connect drying accessories (sold separately)
- * Full color, 5" capacitive touch screen with Lyo-Works OS:
 - Real time display of collector temperature, vacuum level and optional End-Zone end point detection
 - Automatic and manual start-up modes for collector cool down and vacuum pull down
 - Vacuum set point, alerts, diagnostic tests, user manual, defrost control and optional drying accessory control
 - Data logging stores and displays data in table or graph format, and may be exported via USB
 - Settings include language (English, Spanish, French, German, or Italian), time, temperature (°C or °F) and vacuum (mBar, Torr or Pa)
 - Alerts can be emailed to user-entered addresses via Ethernet connection
 - Maintenance alert settings for vacuum pump and refrigeration
 - Security lock out
- * USB port and Ethernet connection
- End-Zone compatible (End-Zone Starter Kit sold separately. See page 48)
- Hot gas defrost with auto shut off at +65° C (+149° F)
- Vacuum control valve
- * Vacuum break valve

* Labconco exclusive feature

* Patented* moisture sensor

- Compact benchtop design with a small footprint
- Stainless steel and powder-coated steel exterior
- Quick-disconnect drain hose fitting with hose connector. 18", 1/4" ID silicone tubing and clamp included
- Electrical receptacle for vacuum pump connection
- 3/4" OD vacuum connection, 50" of 3/4" ID vacuum hose and two clamps

Standards conformance & regulations:

- UL Standard 61010-1 (115/230V, 60 Hz models)
 - CAN/CSA C22.2 No. 61010-1 (115/230V, 60 Hz models)
 - CE Conformity marking (230V, 50 Hz models)
- △ **WARNING:** Cancer - P65Warnings.ca.gov (California only)

Options include:

- Single 1/3 hp HCFC/CFC-free refrigeration system to cool collector to -50° C (-58° F) or two 1/3 hp HCFC/CFC-free refrigeration systems to cool collector to -84° C (-119° F). Collectors reaching -50° C include acrylic lid. Collectors reaching -84° C include stainless steel lid
- PTFE-coated collector coil and chamber for corrosive compounds
- Region-specific electrical plug configurations

All models require (not included):

- Vacuum pump with a displacement of at least 98 L/min, 0.007 mBar ultimate pressure and fitting for 3/4" ID vacuum hose. See pages 41-44
- Drying accessory. See pages 34, 36-38
- Freeze dry glassware if not bulk freeze drying. See pages 46, 50



*U.S. Patent No. 6,968,631

FreeZone® 2.5 Liter Benchtop Freeze Dryers

Ordering Information

Catalog Number Configurator:

Use this key to configure the nine digit catalog number to order your FreeZone 2.5 Liter Benchtop Freeze Dryer.

7 0 2 0 0

Select the **REFRIGERATION TEMPERATURE** of your freeze dryer's collector. This is the second digit of your catalog number.

- 0** = -50° C (-58° F). For samples containing water. Not for use with samples containing acetonitrile, methanol or ethanol. Collector is capable of removing 2 liters of water in 24 hours.*
- 1** = -84° C (-119° F). For low eutectic point samples containing water or acetonitrile. Not for use with samples containing methanol or ethanol. Collector is capable of removing 2.2 liters of water in 24 hours.*

Select the **COLLECTOR COIL** and **CHAMBER MATERIAL** of your freeze dryer. This is the sixth digit of your catalog number.

- 1** = Stainless steel
- 2** = PTFE-coated stainless steel

Select the **ELECTRICAL CONFIGURATION** and **PLUG TYPE** of your freeze dryer. These are the eighth and ninth digits of your catalog number.

- 00** = 115V, 60 Hz, with 20A plug for North America
- 10** = 230V, 60 Hz, with plug for North America
- 15** = 230V, 60 Hz, with plug for Saudi Arabia
- 30** = 230V, 50 Hz, with Schuko plug
- 40** = 230V, 50 Hz, with plug for China/Australia
- 50** = 230V, 50 Hz, with plug for Great Britain (UK)
- 70** = 230V, 50 Hz, with plug for India

Electrical Requirements

Collector Capacity	Refrigeration Temperature	Volts	Amps	Note
2.5 L	-50° C	115	14**	Requires 20 amp dedicated circuit
2.5 L	-50° C	230	7†	
2.5 L	-84° C	115	16**	Requires 20 amp dedicated circuit
2.5 L	-84° C	230	10†	

Plug Configurations



115V, 60 Hz, 20A
for North America



230V, 60 Hz
for North America



230V, 60 Hz
for Saudi Arabia



230V, 50 Hz
Schuko



230V, 50 Hz
for China/Australia



230V, 50 Hz
for Great Britain (UK)



230V, 50 Hz
for India

Actual Dimensions & Shipping Weights

Refrigeration Temperature	Overall Dimensions (w x d x h)	Shipping Weight
-50° C (-58° F)	14.5" x 19.2" x 16.9" (36.8 x 48.8 x 42.9 cm)	120 lbs. (54 kg)
-84° C (-119° F)	14.5" x 24.5" x 16.9" (36.8 x 62.2 x 42.9 cm)	165 lbs. (75 kg)

*Freeze drying rate will be lower for samples other than shell-frozen plain water. For optimum performance, room temperature should be 21° C (70° F) or colder.

**System amperage shown includes 8 amp maximum vacuum pump rating.

†System amperage shown includes 4.5 amp maximum vacuum pump rating.