

PRODUCT MODEL

Catalog # 700405000

FreeZone 4.5L -50 °C Benchtop Freeze Dryer, Stainless Steel, North America, 115V, Eco-Cool Refrigerant

99 /100 11,742 Citations



All Features & Specifications

Features (All Models)

- Upright stainless steel collector coil capable of holding from 2.5L to 8L of ice before defrosting. Acrylic collector lid, 3/4" thick, has neoprene gasket and 3" diameter port for connection of drying accessories (sold separately).
- Compact benchtop design with a small footprint.
- Brushed stainless steel and glacier white, powder-coated steel exterior with blue accents.
- Full color, 5" capacitive touchscreen with Lyo-Works™ OS:
 - Real time display of collector temperature, vacuum level, and optional End-Zone™ end point detection system.

- Start-up mode for collector cool-down and vacuum pull-down (automatic or manual).
 - Operating mode (standby or run).
 - Vacuum set point, alerts, diagnostic tests, user manual, defrost control, and optional drying accessory parameters.
 - Data logging stores and displays data in table or chart format, and may be exported via USB or Ethernet.
 - Settings include language (English, Spanish, German, French, Italian, Chinese, Japanese, Portuguese), time, time zone, temperature (° C or ° F), and vacuum (mBar, Torr, or Pa).
 - Alerts are programmable to send via Ethernet connection to user-entered email addresses.
 - Display settings include brightness, touch sounds (on/off), and screen time out in minutes (on/off).
 - Maintenance alert settings include vacuum pump oil change, refrigeration cleaning, total operating hours and line voltage offset.
 - Level-specific security lock-out prevents changes to programs and other system parameters.
- Hot gas defrost with auto shut off at +60° C (+140° F).
 - On/standby switch.
 - Moisture sensor that prevents refrigeration or vacuum start-up when moisture is detected in the drain line.
 - Vacuum control valve that maintains vacuum level set point.
 - Vacuum break valve that bleeds air into the system when power to the freeze dryer or vacuum pump is shut off. If a power outage less than approximately 5 minutes occurs, the freeze dryer will restart and the refrigeration and vacuum system will resume operation once power is restored. If the power failure is more than approximately 5 minutes and the collector warms above safe limits, the freeze dryer will not automatically restart.
 - Side-mounted USB port and rear-mounted Ethernet connection.
 - Side-mounted, quick-disconnect drain hose fitting and lanyard with hose connector. 18", 1/4" ID silicone tubing and clamp included.
 - Rear-mounted electrical receptacle for vacuum pump connection.
 - 3-wire electrical cord with plug.
 - 3/4" OD vacuum connection, 50" of 3/4" ID vacuum hose and two clamps.

Options Include

- PTFE-coated collector coil and chamber for processing involving corrosive compounds.
- Region-specific electrical plug configurations.

Required Accessories (Not Included)

- Vacuum pump with a displacement of at least 98 L/min, 0.02 mBar ultimate pressure and fitting suitable for 3/4" ID vacuum hose.
- Freeze Dry Glassware, Small Tray Dryer, or other drying accessory

Specifications

Weight	139.0
Dimensions	16.5" w x 22.4" d x 18.9" h
Metric Dimensions	41.91 × 56.9 × 48.01 cm
Metric Weight (kg)	63.0
Collector Temperature	-50° C
Ice Holding Capacity	4.5L
Plug Type	North America, 115V
Style	Benchtop
Vacuum Pump Displacement Required	98 L/min or Larger Displacement
Conformance	CAN/CSA C22.2, UL