

FreeZone 12 Liter -50C Console Freeze Dryers



FreeZone 12 Liter Console Freeze Dryers are designed for lyophilizing moderate to large sample loads or numerous small container batches. The console features a front viewing window, interior space for a vacuum pump, an accommodation for a large tray dryer such as the FreeZone Stoppering Tray Dryer (pump and tray dryer sold separately).

The upright stainless steel collector coil holds 12 liters of ice before defrosting. A single 1 hp HCFC/CFC-free refrigeration system cools the collector to -50° C (-58° F), suitable for aqueous samples.

Lyo-Works™ OS provides a real time display of collector temperature, vacuum level and optional End-Zone™ end point detection system, shown on a 5" full color, capacitive touch screen. Models with PTFE-coated collectors that can withstand corrosive compounds are available. Built-in options include a purge valve and mini chamber.

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Options Include

- PTFE-coated collector coil and chamber for processing involving corrosive compounds.
- Purge valve for isolating the vacuum pump from the freeze dryer.
- Built-in stainless steel mini vacuum drying chamber that includes 50-watt heater with microprocessor control to +60° C (+140° F), 3/4" thick clear acrylic lid and neoprene gasket. (Chamber is not cooled.)
- Region-specific electrical plug configurations.

Required Accessories (Not Included)

- Vacuum pump with a displacement of at least 98 L/min, 0.002 mBar ultimate pressure and fitting suitable for 3/4" ID vacuum hose.
- Tray dryer or other drying accessory.
- Freeze dry glassware if not bulk freeze drying.

Features (All Models)

- Upright stainless steel collector coil capable of holding 12L of ice before defrosting. Acrylic collector lid, 3/4" thick, has neoprene gasket.
- Console cabinet with interior space for vacuum pump (sold separately) and two-piece, removable front panel with viewing window.
- Clear acrylic chamber lid, 3/4" thick, with neoprene gasket.
- Brushed stainless steel and glacier white, powder-coated steel exterior with blue accents.
- 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 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, French, German, or Italian), time, time zone, temperature ($^{\circ}\text{C}$ or $^{\circ}\text{F}$), 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 $+60^{\circ}\text{C}$ ($+140^{\circ}\text{F}$).
- 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

[FreeZone 12 Liter -50C Console](#)



Catalog # 701211210

Region: U.S. and Canada,
International

Collector Temperature: -50° C,
-58° F

Ice Holding Capacity: 12L

Options Included: Purge Valve,
Mini Chamber

Plug Type: North America, 230V

Style: Console

[FreeZone 12 Liter -50C Console Freeze Dryer](#)



Catalog # 701211230

Region: International

Collector Temperature: -50° C,
-58° F

Ice Holding Capacity: 12L

Options Included: Purge Valve,
Mini Chamber

Plug Type: Schuko

Style: Console

[FreeZone 12 Liter -50C Console Freeze Dryer](#)



Catalog # 701211250

Region: International

Collector Temperature: -50° C,
-58° F

Ice Holding Capacity: 12L

Options Included: Purge Valve,
Mini Chamber

Plug Type: British (UK)

Style: Console

[FreeZone 12 Liter -50C Console](#)

[FreeZone 12 Liter -50C Console](#)



Catalog # 701211215

Region: International

Collector Temperature: -50° C,
-58° F

Ice Holding Capacity: 12L

Options Included: Purge Valve,
Mini Chamber

Plug Type: Saudi Arabia

Style: Console

[FreeZone 12 Liter -50C Console Freeze Dryer](#)



Catalog # 701211240

Region: International

Collector Temperature: -50° C,
-58° F

Ice Holding Capacity: 12L

Options Included: Purge Valve,
Mini Chamber

Plug Type: China/Australia

Style: Console

[FreeZone 12 Liter -50C Console Freeze Dryer](#)



Catalog # 701211270

Region: International

Collector Temperature: -50° C,
-58° F

Ice Holding Capacity: 12L

Options Included: Purge Valve,
Mini Chamber

Plug Type: India

Style: Console

[FreeZone 12 Liter -50C Console](#)



Catalog # 701212210

Region: U.S. and Canada,
International

Collector Temperature: -50° C,
-58° F

Ice Holding Capacity: 12L

Options Included: Corrosion-
Resistant Collector, Purge Valve,
Mini Chamber

Plug Type: North America, 230V

Style: Console

[FreeZone 12 Liter -50C Console
Freeze Dryer](#)



Catalog # 701212230

Region: International

Collector Temperature: -50° C,
-58° F

Ice Holding Capacity: 12L

Options Included: Corrosion-
Resistant Collector, Purge Valve,
Mini Chamber

Plug Type: Schuko

Style: Console

[FreeZone 12 Liter -50C Console
Freeze Dryer](#)



Catalog # 701212250

Region: International

Collector Temperature: -50° C,
-58° F

Ice Holding Capacity: 12L

Options Included: Corrosion-
Resistant Collector, Purge Valve,
Mini Chamber

Plug Type: British (UK)

Style: Console



Region: International

Collector Temperature: -50° C,
-58° F

Ice Holding Capacity: 12L

Options Included: Corrosion-
Resistant Collector, Purge Valve,
Mini Chamber

Plug Type: Saudi Arabia

Style: Console

[FreeZone 12 Liter -50C Console
Freeze Dryer](#)



Catalog # 701212240

Region: International

Collector Temperature: -50° C,
-58° F

Ice Holding Capacity: 12L

Options Included: Corrosion-
Resistant Collector, Purge Valve,
Mini Chamber

Plug Type: China/Australia

Style: Console

[FreeZone 12 Liter -50C Console
Freeze Dryer](#)



Catalog # 701212270

Region: International

Collector Temperature: -50° C,
-58° F

Ice Holding Capacity: 12L

Options Included: Corrosion-
Resistant Collector, Purge Valve,
Mini Chamber

Plug Type: India

Style: Console

[FreeZone 12 Liter -50C Console Freeze Dryer](#)



Catalog # 701211010

Region: U.S. and Canada,
International

Collector Temperature: -50° C,
-58° F

Ice Holding Capacity: 12L

Plug Type: North America, 230V

Style: Console

[FreeZone 12 Liter -50C Console Freeze Dryer](#)



Catalog # 701211030

Region: International

Collector Temperature: -50° C,
-58° F

Ice Holding Capacity: 12L

Plug Type: Schuko

Style: Console

[FreeZone 12 Liter -50C Console Freeze Dryer](#)



Catalog # 701211050

Region: International

Collector Temperature: -50° C,
-58° F

Ice Holding Capacity: 12L

Plug Type: British (UK)

Style: Console

[FreeZone 12 Liter -50C Console Freeze Dryer](#)



Catalog # 701212010

[FreeZone 12 Liter -50C Console Freeze Dryer](#)



Catalog # 701211015

Region: International

Collector Temperature: -50° C,
-58° F

Ice Holding Capacity: 12L

Plug Type: Saudi Arabia

Style: Console

[FreeZone 12 Liter -50C Console Freeze Dryer](#)



Catalog # 701211040

Region: International

Collector Temperature: -50° C,
-58° F

Ice Holding Capacity: 12L

Plug Type: China/Australia

Style: Console

[FreeZone 12 Liter -50C Console Freeze Dryer](#)



Catalog # 701211070

Region: International

Collector Temperature: -50° C,
-58° F

Ice Holding Capacity: 12L

Plug Type: India

Style: Console

[FreeZone 12 Liter -50C Console Freeze Dryer](#)



Catalog # 701212015

Region: U.S. and Canada,
International
Collector Temperature: -50° C,
-58° F
Ice Holding Capacity: 12L
Options Included: Corrosion-
Resistant Collector
Plug Type: North America, 230V
Style: Console

[FreeZone 12 Liter -50C Console
Freeze Dryer](#)



Catalog # 701212030

Region: International
Collector Temperature: -50° C,
-58° F
Ice Holding Capacity: 12L
Options Included: Corrosion-
Resistant Collector
Plug Type: Schuko
Style: Console

[FreeZone 12 Liter -50C Console
Freeze Dryer](#)



Catalog # 701212050

Region: International
Collector Temperature: -50° C,
-58° F
Ice Holding Capacity: 12L
Options Included: Corrosion-
Resistant Collector
Plug Type: British (UK)
Style: Console

Region: International
Collector Temperature: -50° C,
-58° F
Ice Holding Capacity: 12L
Options Included: Corrosion-
Resistant Collector
Plug Type: Saudi Arabia
Style: Console

[FreeZone 12 Liter -50C Console
Freeze Dryer](#)



Catalog # 701212040

Region: International
Collector Temperature: -50° C,
-58° F
Ice Holding Capacity: 12L
Options Included: Corrosion-
Resistant Collector
Plug Type: China/Australia
Style: Console

[FreeZone 12 Liter -50C Console
Freeze Dryer](#)



Catalog # 701212070

Region: International
Collector Temperature: -50° C,
-58° F
Ice Holding Capacity: 12L
Options Included: Corrosion-
Resistant Collector
Plug Type: India
Style: Console

[FreeZone 12 Liter -50C Console Freeze Dryer](#)



Catalog # 701211110

Region: U.S. and Canada, International
Collector Temperature: -50° C, -58° F
Ice Holding Capacity: 12L
Options Included: Purge Valve
Plug Type: North America, 230V
Style: Console

[FreeZone 12 Liter -50C Console Freeze Dryer](#)



Catalog # 701211115

Region: International
Collector Temperature: -50° C, -58° F
Ice Holding Capacity: 12L
Options Included: Purge Valve
Plug Type: Saudi Arabia
Style: Console

[FreeZone 12 Liter -50C Console Freeze Dryer](#)



Catalog # 701211130

Region: International
Collector Temperature: -50° C, -58° F
Ice Holding Capacity: 12L
Options Included: Purge Valve
Plug Type: Schuko
Style: Console

[FreeZone 12 Liter -50C Console Freeze Dryer](#)



Catalog # 701211140

Region: International
Collector Temperature: -50° C, -58° F
Ice Holding Capacity: 12L
Options Included: Purge Valve
Plug Type: China/Australia
Style: Console

[FreeZone 12 Liter -50C Console Freeze Dryer](#)



Catalog # 701211150

Region: International
Collector Temperature: -50° C, -58° F
Ice Holding Capacity: 12L
Options Included: Purge Valve
Plug Type: British (UK)
Style: Console

[FreeZone 12 Liter -50C Console Freeze Dryer](#)



Catalog # 701211170

Region: International
Collector Temperature: -50° C, -58° F
Ice Holding Capacity: 12L
Options Included: Purge Valve
Plug Type: India
Style: Console

[FreeZone 12 Liter -50C Console Freeze Dryer](#)



Catalog # 701212110

Region: U.S. and Canada, International
Collector Temperature: -50° C, -58° F
Ice Holding Capacity: 12L
Options Included: Corrosion-Resistant Collector,

[FreeZone 12 Liter -50C Console Freeze Dryer](#)



Catalog # 701212115

Region: International
Collector Temperature: -50° C, -58° F
Ice Holding Capacity: 12L
Options Included: Corrosion-Resistant Collector

Plug Type: North America, 230V

Style: Console

Plug Type: Saudi Arabia

Style: Console

[FreeZone 12 Liter -50C Console Freeze Dryer](#)

Catalog # 701212130



Region: International

Collector Temperature: -50° C, -58° F

Ice Holding Capacity: 12L

Options Included: Corrosion-Resistant Collector,
Purge Valve

Plug Type: Schuko

Style: Console

[FreeZone 12 Liter -50C Console Freeze Dryer](#)

Catalog # 701212140



Region: International

Collector Temperature: -50° C, -58° F

Ice Holding Capacity: 12L

Options Included: Corrosion-Resistant Collector
Purge Valve

Plug Type: China/Australia

Style: Console

[FreeZone 12 Liter -50C Console Freeze Dryer](#)

Catalog # 701212150



Region: International

Collector Temperature: -50° C, -58° F

Ice Holding Capacity: 12L

Options Included: Corrosion-Resistant Collector,
Purge Valve

Plug Type: British (UK)

Style: Console

[FreeZone 12 Liter -50C Console Freeze Dryer](#)

Catalog # 701212170



Region: International

Collector Temperature: -50° C, -58° F

Ice Holding Capacity: 12L

Options Included: Corrosion-Resistant Collector
Purge Valve

Plug Type: India

Style: Console

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