



# FreeZone® Bulk Tray Dryers

## FEATURES & BENEFITS

**Power switch** turns all power to the Tray Dryer on or off.

**RS-232 cable connection port**, located on the back, allows communication of the Bulk Tray Dryer with user-supplied PC. Parameters that may be monitored include shelf set point temperature, actual temperature of each shelf, run time and operating status. **RS-232 Cable is required (not included)**. See page 64.

**Support stand** simplifies connection to FreeZone 6, 12 or 18 Liter Freeze Dry System. Support stand completes the connection between the Tray Dryer attachment port and the Freeze Dry System of your choice. The stand elevates the Tray Dryer above the work surface of the Freeze Dry System to allow unobstructed access to the collector compartment or optional built-in vacuum drying chamber or shell freezer.



Intertek

**ETL listed.** All 115 volt models carry the ETL mark signifying they are certified to UL and CAN/CSA standards for laboratory equipment.

**Vacuum release valve control** vents the chamber so the chamber door may be opened.

**Clear acrylic viewing door** provides visibility of the chamber interior.

**Three shelves, each with a 200-watt heater**, provide ample room for bulk samples or samples in serum bottles. Each shelf is 12.7" w x 16.6" d (32.2 cm x 42.2 cm) to provide 210 square inches of area. Each shelf may be set above sample temperature up to +60° C (+140° F). A microprocessor maintains system temperature within 3° C of set point. (Shelves are not cooled. The only cooling is from the frozen sample.) The chamber can accommodate two additional shelves. See page 51 for ordering information.

**Three sensor probes** monitor sample temperature, which is digitally displayed on the LCD. Connections are provided for two additional sensor probes (Additional sensors are sold separately and as a component to Heated Shelves with Sensors).



**Six-Port Manifold (models 7806021 and 7806031)** increases flexibility and capacity of the FreeZone System. Six valves, which accommodate either 1/2" or 3/4" flask adapters, allow connection of flasks and other freeze dry glassware so that samples attached to the manifold and in the Tray Dryer may be lyophilized simultaneously.



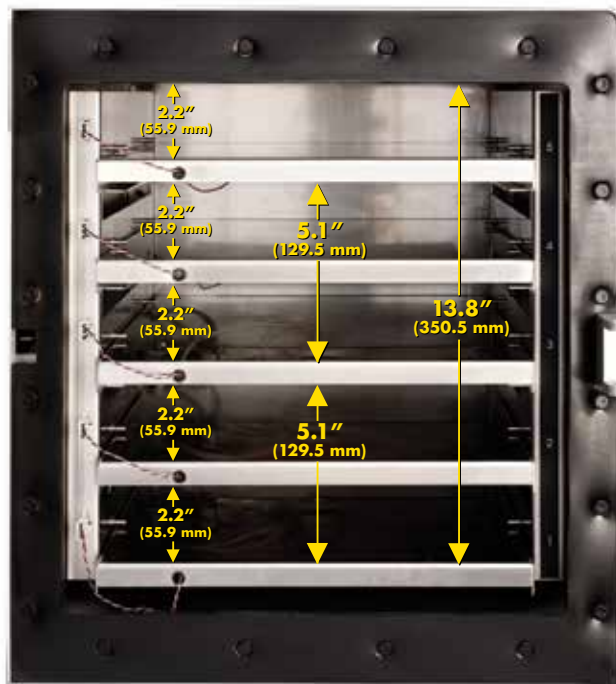
**CE marking.** All 230 volt models conform to the CE (European Community) directives.

**LCD** displays set point temperature, actual temperatures and Run ("R") or Stop ("S") mode.



**RUN/STOP switch** initiates the Bulk Tray Dryer to control the temperature of the shelves at the set point temperature.

**"Up" and "down" arrows** are used in programming to change the set point temperature above sample temperature to +60° C (+140° F). The chamber is not cooled. The only cooling is from the frozen sample.





# FreeZone® Bulk Tray Dryers

## SPECIFICATIONS & ORDERING INFORMATION

### Specifications:

- ❖ Brushed stainless steel and glacier white, powder-coated steel exterior with blue accents.
  - Acrylic door, 1" thick.
  - Three shelves, each 12.7" w x 16.6" d (32.2 cm x 42.2 cm) to provide 210 square inches of area. Chamber may accommodate two additional shelves (sold separately).
- ❖ 200-watt heater on each shelf for heating to +60° C (+140° F). A microprocessor maintains system temperature within 3° C of set point. (Shelves are not cooled by the Bulk Tray Dryer. The only cooling is from the frozen sample.)
  - Three sensor probes for monitoring sample or shelf temperature. Connections for two additional sensors are provided (additional sensors sold separately).
  - LCD that displays set point and temperature (°C) of each shelf and "R" for Run mode or "S" for Stop mode.
  - Control panel with Run/Stop, "Up" arrow and "Down" arrow switches.
  - Vacuum release valve for venting the chamber so the chamber door may be opened.
  - Rear-mounted RS-232 cable connection port for communication with a user-supplied PC. Monitored parameters are shelf set point temperature, actual temperature of each shelf, run time and operating status. **RS-232 Cable is required (not included).** See page 64.
  - Side-mounted power switch.
- ❖ Integral Support Stand completes the connection between the Tray Dryer attachment port and the FreeZone 6, 12 or 18 Liter Freeze Dry System of your choice. The stand elevates the Tray Dryer above the work surface of the Freeze Dry System to allow unobstructed access to the collector compartment.
  - Overall dimensions: 27.1" h x 32.2" w x 21.5" d (69 cm x 82 cm x 55 cm).

### Models conform to the following standards:

- UL Standard 61010-1 (115 volt models).
- CAN/CSA C22.2 No. 61010.1 (115 volt models).
- CE Conformity marking (230 volt models).

### Options include:



FreeZone Bulk Tray Dryer with 6-Port Manifold 7806021 and FreeZone 12 Liter Freeze Dry System with PTFE-Coated Collector 7754041.



- Pre-installed 6-Port Tray Dryer Manifold 7726500.
- Domestic or international electrical configuration.

### All models require (not included):

- FreeZone 6, 12 or 18 Liter Freeze Dry System. See pages 24-32.
- Vacuum pump with a displacement of at least 98 liters per minute, 0.002 mBar ultimate pressure, and fitting suitable for 3/4" ID vacuum hose. See pages 57-59.
- Freeze dry glassware if not bulk freeze drying. See pages 62-63.

Catalog Number	Electrical Requirements	Plug Type	6-Port Manifold	Shipping Weight
7806020	115 volts, 60 Hz, 8.0 A	115 volts, 15 amps		262 lbs. (119 kg)
7806021	115 volts, 60 Hz, 8.0 A	115 volts, 15 amps	•	262 lbs. (119 kg)
7806040	230 volts, 60 Hz, 4.0 A	North America, 230 volts		262 lbs. (119 kg)
7806041	230 volts, 60 Hz, 4.0 A	North America, 230 volts	•	262 lbs. (119 kg)
7806030*	230 volts, 50 Hz, 4.0 A	Schuko		262 lbs. (119 kg)
7806031*	230 volts, 50 Hz, 4.0 A	Schuko	•	262 lbs. (119 kg)
7806060*	230 volts, 50 Hz, 4.0 A	British (UK)		262 lbs. (119 kg)
7806061*	230 volts, 50 Hz, 4.0 A	British (UK)	•	262 lbs. (119 kg)
7806070*	230 volts, 50 Hz, 4.0 A	China/Australia		262 lbs. (119 kg)
7806071*	230 volts, 50 Hz, 4.0 A	China/Australia	•	262 lbs. (119 kg)

See page 51 for Bulk Tray Dryer accessories.

❖ Exclusive feature

\*International electrical configuration