# VirTis BenchTop Pro with Omnitronics™ - 3L Benchtop Freeze Dryer



(BenchTop Pro 3L with optional tree-type manifold and condensate pan kit shown).

### **Performance Specifications**

	ES	XL
Lowest Condenser Temperature (°C) (50 Hz / 60 Hz)	-52 / -55	-72 / -75
Maximum Condenser Capacity (L)	3	3
Maximum Ice Condensing Capacity in 24 hours $\left(L\right)^{\dagger}$	2	2
Maximum Deposition Rate (L/hour) <sup>†</sup>	0.08	0.08
Number of Compressors	1	1
Compressor Horsepower	1/3	1/3
System Refrigerant	MO89	R245fa/R508B
Average Vacuum Time to 100 Millitorr (minutes)**	15	15
Lowest System Vacuum (mT)**	≤ 20	≤ 20

**Note:** Performance specifications are based on SP Scientific test data from units operating at an ambient room temperature of approximately 20 °C. SP Scientific recommends an operating range of 15-25 °C (59-77 °F).

## **Key Features**

- Direct chamber, flask and/or rack drying capabilities.
- PLC-based Omnitronics<sup>™</sup> controller.
- Choice of refrigeration system to meet various process requirements.
- Optional manifolds, racks and accessories available.

### **Optional Components**

- Stoppering-Tainer (SC-1 Stainless Steel).
- Stainless Steel Drum Manifold (18-Port).
- Tree-Type Stainless Steel Manifold (8- or 12-Port).
- Stainless Steel Vertical Manifold (12-Port).
- Bulk Shelf Rack (Unheated or 35 °C Heated).<sup>\\</sup>
- Vertical Acrylic Drum Manifold (8-or 12-Port).

**Note**: Additional accessories, as well as flask adapters, glassware and other components are available. Contact SP Scientific for more information.

# With Vacuum Pump Approx. Peak Heat Generated (BTU/h) 3,000 3,000 Without Vacuum Pump Approx. Peak Heat Generated (BTU/h) 2,000 2,000

#### **Electrical Requirements**

Voltage (VAC) <sup>‡</sup>	100-120	208-230	200-240
Hertz	50, 60	60	50
Phase	1	1	1
Breaker Amperage	15	10	10



# VirTis BenchTop Pro with Omnitronics™ - 3L

# Benchtop Freeze Dryer



## **Dimensional Data**

Additional Information		
Condenser Inside Diameter (in / cm)	9 / 22.9	
Approximate Weight (lb / kg)	60 / 27.3	
Height (in / cm)	17 / 43.2	
Depth (in / cm)	28.5 / 72.4	
Width (in / cm)	15.5 / 39.4	

### Additional Information

Construction	Stainless Steel Condenser
Vacuum Pump (required, not included)	Two-Stage Rotary Vane
Defrost Type	Hot Gas
Refrigerant Type	CFC Free
Condenser Type	Bottom External Coil

## **Materials of Construction**

Condenser Chamber	304 Stainless Steel
Condenser Chamber Cover / Adapter Plate	Acrylic
Condenser Chamber Gasket	Neoprene Split-ring
Bulk Rack Shelves	304 Stainless Steel
Drum Manifold	Acrylic or 304 Stainless Steel
Vertical and Tree-Type Manifolds	316L Stainless Steel
Drum Manifold Gasket	Neoprene Split-ring
Quickseal Body	Neoprene
Quickseal Knob	Polypropylene



Stoppering-Tainer

SC-1 Stainless Steel



Drum Manifold

18-Port Stainless Steel Drum Manifold



Tree-Type Manifold

8-or 12-Port Stainless Steel Manifold



Vertical Manifold

12-Port Stainless Steel Vertical Manifold



Bulk Shelf Rack

3 Shelves; Unheated or 35 °C Heated



Vertical Drum Manifold

8- or 12-Port Acrylic Drum Manifold

<sup>†</sup> The specified Maximum Ice Condensing Capacity in 24 Hours and Maximum Deposition Rate are based on the process of freeze-drying water as aggressively as possible. The freeze dryer's ability to collect ice at an hourly rate or over a specified period will always be application dependent.

\*\* Vacuum specifications are based on SP Scientific test data from similar units equipped with an Leybold D2,5E two-stage rotary vane vacuum pump. Units equipped with other vacuum pumps may yield different results.

<sup>*t*</sup> NEMA plug type is selected at time of sale.

<sup>11</sup> 35 °C heated bulk shelf rack is available with a 12-port acrylic drum manifold only.

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