

# VirTis BenchTop Pro with Omnitronics™ - 9L

## Benchtop Freeze Dryer



(BenchTop Pro 9L with optional tree-type manifold and condensate pan kit shown).

### Key Features

- Direct chamber, flask and/or rack drying capabilities.
- PLC-based Omnitronics™ 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>11</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.

### Performance Specifications

	ES	EL
Lowest Condenser Temperature (°C) (50 Hz / 60 Hz)	-52 / -55	-82 / -85
Maximum Condenser Capacity (L)	9	9
Maximum Ice Condensing Capacity in 24 hours (L) <sup>†</sup>	5	5
Maximum Deposition Rate (L/hour) <sup>†</sup>	0.21	0.21
Number of Compressors	1	2
Compressor Horsepower	1/3	1/3, 3/8
System Refrigerant	MO89	R407C/R508B
Average Vacuum Time to 100 Millitorr (minutes)**	18	18
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).

### Utility Requirements

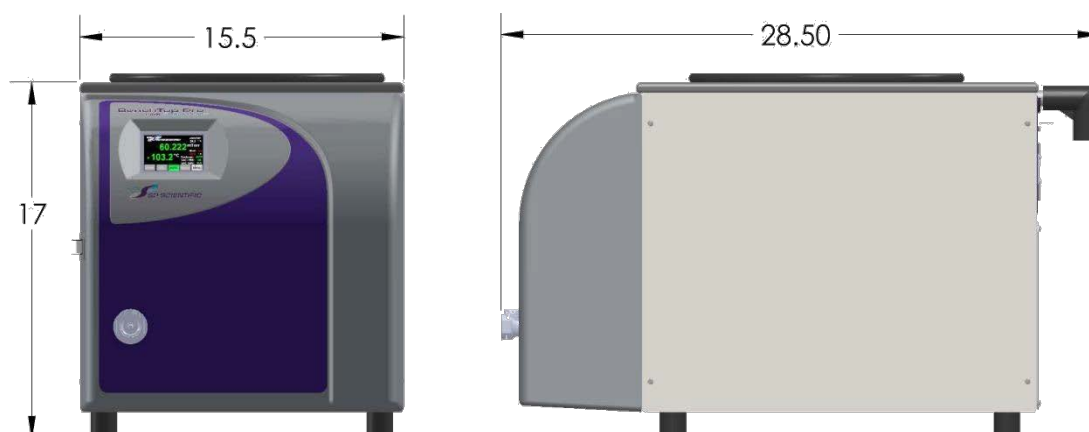
	ES	EL
<b>With Vacuum Pump</b>		
Approx. Peak Heat Generated (BTU/h)	3,500	4,500
<b>Without Vacuum Pump</b>		
Approx. Peak Heat Generated (BTU/h)	2,500	3,500

### Electrical Requirements

	ES			EL		
Voltage (VAC) <sup>†</sup>	100-120	208-230	200-240	100-120	208-230	200-240
Hertz	50, 60	60	50,60	50, 60	60	50,60
Phase	1	1	1	1	1	1
Breaker Amperage	15	10	10	20	15	15

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### Dimensional Data

Width (in / cm)	15.5 / 39.4
Depth (in / cm)	28.5 / 72.4
Height (in / cm)	17 / 43.2
Approximate Weight (lb / kg)	131 / 59.4
Condenser Inside Diameter (in / cm)	12 / 30.5

### 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	Internal Coil

### Materials of Construction

Condenser Chamber	304
Internal Condenser Coil	316L 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.

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

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



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**Pricing on any accessories shown can be found by keying the part number into the search box on our website.**

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

