

*FREEZEMOBILE®  
25 AND 35 SERIES FREEZE DRYERS*



*Committed to Product Excellence...and Continuous Support*





# VirTis® Freezemobile® 25 and 35 Series Freeze Dryers

*Maximum Versatility to Enable  
Efficient Configuration for  
Multiple Applications*

VirTis Freezemobile 25 and 35 Series freeze dryers offer more flexibility, more operational features and more maintenance conveniences than most other systems on the market. The broad selection of manifolds and options can enable multiple users to configure the same base system for a wide range of different applications. Use the Freezemobile for peptide production, small scale projects, and multi-user samples.

**Standard features also include:**

- Widest selection of manifolds including drum type with bulk and stoppering drying assemblies plus single and multi-tier horizontal "T" types
- Sentry™ 2.0 microprocessor controller features easy, intuitive operation with highly visible backlit graphic display plus audible and lighted alarm warnings
- Printer output for documentation
- High quality, easy maintenance construction including stainless steel smooth-walled condenser for easy cleaning and condensate removal
- Clear acrylic, full view hinged condenser door with quick turn pull latch ensures positive sealing every time

- Optional tempered glass door available for use with organic solvents Part# 390682
- Integral hot gas condenser defrost allows easy rapid ice removal
- Exclusive vacuum pump module with oil change management system\*
- Vacuum brake system maintains vacuum pressure and prevents oil from being drawn back into the unit in the event of a power failure or improper shutdown
- Environmentally friendly CFC-free and energy efficient refrigeration systems
- Power save button to save energy, reduce backstreaming, and extend vacuum pump life

\*Standard feature with purchase of vacuum pump



*Freezemobile 25  
with Vacuum Pump Module  
and Double Tier SS Manifold*

*For more information, call  
SP Industries at **800.431.8232**  
or contact your local  
representative today.*



# Sentry™ 2.0 Microprocessor Controller



## Highly Intuitive Easy Operation with At-A-Glance System Status Monitoring

- Optional computer workstation provides graphics display and historical trending for multiple Freezemobile units
- Combination of backlit LCD display and function buttons simplify adjustment of alarm and control parameters
- Graphical wave LED display allows quick and easy method for checking system status
- Auto start button establishes condenser cool down and vacuum pull down sequence—ready to use with one touch
- Optional line printer provides hard copy documentation of system run parameters

The Sentry 2.0 is the central control center for Freezemobile 25 and 35 Series Freeze Dryers. The powerful microprocessor offers a wide range of control features to meet virtually any application requirement. The central control panel has a Synoptic LCD display and a graphical LED display, which will display vacuum units in millitorr, microbar, or pascal. The graphical wave LEDs visually reflects

temperature and vacuum levels. Function buttons located on the front of the panel allow users to navigate through the menus located within the LCD display to select operation parameters. The LCD display also shows condenser temperature, ambient room temperature, vacuum levels, and component status during freeze drying cycles. An audible alarm and LED warn of unwanted process deviations and power outages.

## Freezemobile® Factory Installed Base Unit Options

### Shell Freezing Bath (A)—For Increased Capacity

Built-in Shell Freezing Bath permits sample freezing while other samples freeze dry. The bath rotates flasks up to 2000 mL in a heat transfer fluid.

Part No.	Description
SBWC	Shell Freezing Bath Option

### LN<sub>2</sub> Trap (B)—For Use With Solvents

LN<sub>2</sub> Trap provides ultra low temperature barrier to protect pump from solvents.

Part No.	Description
LN <sub>2</sub>	Liquid Nitrogen Trap Option

### Filter Trap (C)—For Use With Solvents

The Filter Trap protects the pump from corrosive acids and solvent vapors. Your choice of cartridges can be ordered separately.

Part No.	Description
FT	Filter Trap Option
250305	Soda-sorb Acid Cartridge
250373	Activated Charcoal Cartridge for Solvent Vapors

### Vacuum Pump Module (D)—For Easy Pump Maintenance

The Vacuum Pump Module allows for easy routine maintenance to the factory-installed vacuum pump. The pump is positioned for easy oil drainage and the built-in funnel eliminates refill mess.

Part No.	Description
VPM	Vacuum Pump Module (Included with purchase of factory installed pump. Optional with customer supplied pump)



**Freezemobile 25  
with Shell  
Freezing Bath  
and LN<sub>2</sub> Trap.  
Filter Trap shown  
separately.**

# Freezemobile® Manifold Options

## Stainless Steel Horizontal "T" Manifolds

A wide variety of Horizontal "T" Manifolds are available in standard configurations. Custom configurations can be supplied to meet specific requirements. All Horizontal "T" Manifolds are high quality 316L stainless steel with 3/4" ports spaced 2" for serum bottles or 4" for flasks or ampules.

Part No.	Description	Part No.	Description
	<b>23" single tier*</b>		<b>23" double tier*</b>
258376	6 port, front, 4" spacing	258418	12 port, front, 4" spacing
258392	12 port, front/rear, 4" spacing	258434	24 port, front/rear, 4" spacing

\*Also available in 31", single, double, or triple tier

Special triple tier "Peptide Dryer"	
378529	30 port, special, for 2000 mL flasks, 4" spacing 23.5" wide x 60.25" high (requires [2] 297036 support trays)



## Stainless Steel Support Trays with Adjustable Supports

For use with multitiered manifolds, support trays catch moisture and support large flasks.

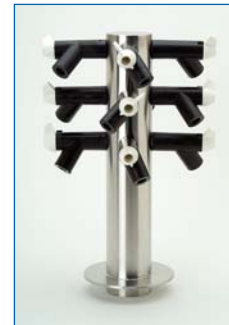
Part No.	Description
256461	24" Front
297036	24" Front and Rear
378697	32" Front
378680	32" Front and Rear



## Stainless Steel Vertical Manifolds

Ideal for volume drying of individual viral and bacterial cultures, 316L Stainless Steel Vertical Manifolds enable ampules to be sealed while still connected to the Quickseal® Valve.

Part No.	Description
345835	12 Port Stainless Steel Vertical Manifold



## Stainless Steel Drum Manifolds

Available in two sizes, Stainless Steel Drum Manifolds are the most popular selections for general freeze-drying applications. They offer the choice of external drying on the Quickseal Valves or chamber processing in petri dishes using a 3-shelf rack option. Supplied complete with Quickseal Valves and a clear acrylic cover with an electric feed-through for the optional heated racks. The Stainless Steel Drum must be used with samples containing solvents along with a tempered glass door (Part #390682).

Part. No.	Dimensions	Number of 3/4" Ports
150136	10" H x 8" W	12
150169	13" H x 13" W	18



## Acrylic Drum Manifolds and Heated Racks

Providing complete visibility, clear acrylic drums can be used to process objects up to 16" tall. Utilizing optional heated racks, objects can also be placed in petri dishes or directly on the shelves set at constant 30°C. Supplied complete with cover, gaskets and electrical feed-through plus a high vacuum plate for a positive bottom seal.

Part No.	Description
402538	10" Diameter, 12 port, Acrylic Drum Manifold
403085	Adapter Plate for Acrylic Manifold-required
153437	7" Diameter 3-Shelf Heated Rack
153452	10" Diameter 3-Shelf Heated Rack



## Wide Mouth Filter Seal Flasks

These flasks are designed to make freeze drying simple. All VirTis® flasks have flat bottoms for stability and wide mouths. Available in seven different sizes for a wide range of samples, the snap-on silicone rubber top provides a leakproof seal without vacuum grease for maintenance-free sample processing. A replaceable filter is secured with an O-ring to prevent cross-contamination and product dispersion.

VirTis borosilicate flasks and silicone lids are autoclavable and are also offered with a safety coating.

Part No.	Maximum Capacity	Working Capacity
235390	40 mL	20 mL
235382	75 mL	35 mL
118174	150 mL	75 mL
118208	300 mL	150 mL
118232	600 mL	300 mL
118273	1200 mL	600 mL
118307	2000 mL	1,000 mL

Note: Contact SP Industries for part numbers of safety coated flasks. Also available for 600 mL and larger flasks with high purity platinum cured silicone lids.

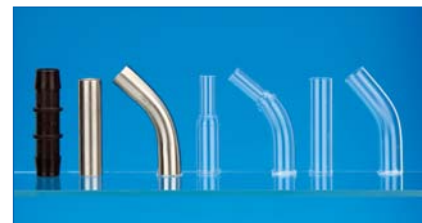


VirTis Widemouth Filter Seal Flasks and Manifold Adapters are manufactured at our Wilmad-LabGlass facilities. For a complete listing of our high quality glass and quartz products visit [www.wilmad-labglass.com](http://www.wilmad-labglass.com)

## Manifold Adapters for Freeze Drying Flasks

Flasks require an adapter to connect them to valves. Adapters are offered in plastic, glass or stainless steel for different applications and customer preference.

Part No.	Material	Shape	Port Size	Compatible Flasks
367424	Plastic	Straight	3/4"	150 - 2000 mL
179655	Glass	Straight	3/4"	150 - 2000 mL
177923	Stainless Steel	Straight	3/4"	150 - 2000 mL
177899	Glass	45°	3/4"	150 - 2000 mL
177931	Stainless Steel	45°	3/4"	150 - 2000 mL
179622	Glass	Straight	3/4"	40 & 75 mL
177873	Glass	45°	3/4"	40 & 75 mL



## Quickseal® Valves

VirTis patented Quickseal Valves are guaranteed vacuum tight to 1 millitorr.

Convenient selector knob indicates open or closed position, Quickseal Valves provide convenient, secure method for adding and removing samples.

Part No.	Description
171926	3/4" Quickseal Valve



## Vacuum Pumps

Part No.	Description
419710	Model D8B 195 LPM* 115V 60 Hz
419734	Model D8B 195 LPM* 208/230V 60 Hz
373913	Model D16B 380 LPM* 208/230V 60 Hz
EPS	Electric Purge System Option

\*At 60 Hz. Performance at 50 Hz is lower.

## Unitop™ Chambers

Unitop Drying Chambers provide a retrofit option for increasing the processing capacity for existing Freezemobile® freeze dryers. Designed to fit on top of any 25 or 35 Series base unit, Unitop Chambers have an independent refrigeration system and microprocessor controls. Available in bulk drying or hydraulic stoppering models with multiple shelf options.

Description
Unitop Chamber Bulk
Unitop Chamber Stoppering

Note: Unitop Chambers are available with up to 6 shelves for bulk models, 5 shelves for stoppering models. For correct part number multiply the number of shelves X 200. (example; stoppering model with 4 shelves, part no. 800HL)

