

ADVANTAGE™ PLUS PERSONAL FREEZE DRYERS



Helping You Make More Time for Science





VirTis® AdVantage™ Plus Personal Freeze Dryers...

Advanced Pilot/Production Scale Performance in a Compact BenchTop Unit

- **Maintain precise temperature control** of shelf cooling/heating fluid to $\pm 0.5^{\circ}\text{C}$ of recipe set point—Ensures product safety and lyophilization process uniformity
- **Highly flexible system** enables freeze drying to be performed in bulk, in flasks or in vials—Pneumatic stoppering option easily seals up to three shelves of vials
- **Superior management of thermal treatment and annealing capabilities** in a benchtop unit through the use of 12 freezing steps—Protects sample and speeds the lyophilization process
- **Easy to use and easy to see from anywhere in the lab**, Wizard™ 2.0 Controller features large 16 line by 35 character backlit display and synoptic screen to enable precise control and monitoring of freeze drying process—User friendly menu options and the ability to store up to 16 programs provides maximum convenience and saves valuable time
- **Easy direct scale-up to a VirTis Pilot System**—Eliminates revalidation of freeze drying method protocols

The new state-of-the-art AdVantage Plus with silicone flooded shelves maintains a precise level of temperature control previously available only in pilot/production scale freeze dryers. The additional shelf space offers greater capacity than any benchtop freeze dryer available. Plus, the newly designed condenser coil will hold a total of six liters

before defrosting. A choice of condenser temperatures at -53°C , -75°C , or -85°C enables processing a wide range of samples in pneumatically stoppered vials on all three shelves. Four patented QuickSeal™ Valves are also available for efficient flask drying. The AdVantage Plus comes with a two year refrigeration warranty and includes CE marking.

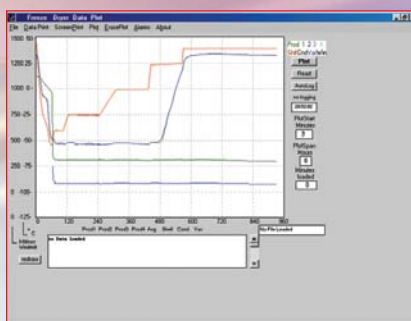




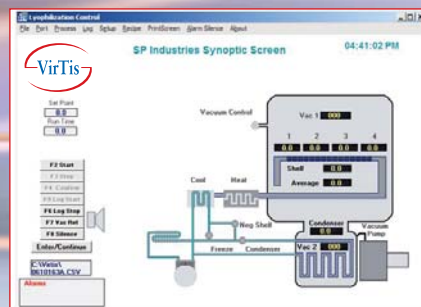
Wizard Controller features 4 product temperature probes, storage of 16 complete recipes, and a full numeric keyboard

Wizard™ 2.0 PC Workstation (Optional)

For the ultimate in process control the AdVantage Plus offers a Wizard 2.0 workstation with synoptic monitoring screens, cycle documentation, and historical printouts. The system includes powerful recipe-programming alarms to protect valuable product and complete, full-cycle documentation.



Powerful graphing of all data for easy analysis and documentation



Lyophilization Control provides remote access to all operation parameters—Synoptic Screens enable remote monitoring of operation status

Recipe Name	Initial Values	Primary Values
Recipe 1	Temp: 20, Pressure: 100, Time: 10	Temp: 20, Pressure: 100, Time: 10
Recipe 2	Temp: 20, Pressure: 100, Time: 10	Temp: 20, Pressure: 100, Time: 10
Recipe 3	Temp: 20, Pressure: 100, Time: 10	Temp: 20, Pressure: 100, Time: 10
Recipe 4	Temp: 20, Pressure: 100, Time: 10	Temp: 20, Pressure: 100, Time: 10
Recipe 5	Temp: 20, Pressure: 100, Time: 10	Temp: 20, Pressure: 100, Time: 10
Recipe 6	Temp: 20, Pressure: 100, Time: 10	Temp: 20, Pressure: 100, Time: 10
Recipe 7	Temp: 20, Pressure: 100, Time: 10	Temp: 20, Pressure: 100, Time: 10
Recipe 8	Temp: 20, Pressure: 100, Time: 10	Temp: 20, Pressure: 100, Time: 10
Recipe 9	Temp: 20, Pressure: 100, Time: 10	Temp: 20, Pressure: 100, Time: 10
Recipe 10	Temp: 20, Pressure: 100, Time: 10	Temp: 20, Pressure: 100, Time: 10
Recipe 11	Temp: 20, Pressure: 100, Time: 10	Temp: 20, Pressure: 100, Time: 10
Recipe 12	Temp: 20, Pressure: 100, Time: 10	Temp: 20, Pressure: 100, Time: 10
Recipe 13	Temp: 20, Pressure: 100, Time: 10	Temp: 20, Pressure: 100, Time: 10
Recipe 14	Temp: 20, Pressure: 100, Time: 10	Temp: 20, Pressure: 100, Time: 10
Recipe 15	Temp: 20, Pressure: 100, Time: 10	Temp: 20, Pressure: 100, Time: 10
Recipe 16	Temp: 20, Pressure: 100, Time: 10	Temp: 20, Pressure: 100, Time: 10

Recipe Manager accommodates unlimited number of user defined recipes



The World Leader in Freeze Drying

AdVantage™ Plus Freeze Dryer Specifications, Accessories, and Ordering Information

Freeze Dryer Flasks

High quality, durable VirTis® brand freeze dryer flasks are available. Visit our website at www.virtis.com and click on literature or call 800.431.8232.

ISO 9001:2000 Registered

All VirTis brand freeze dryers are built in ISO 9001-registered facilities to meet the most exacting current Good Manufacturing Practices (cGMP) standards, and all have validation packages available. VirTis brand freeze dryers offer the best warranties in the business with SP Service support line 877.548.4666.

Experienced product managers are waiting to work with you to meet your requirements, budget, and time line.

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

Limited Warranty

All VirTis Freeze Dryers are covered by a limited one year, all parts and labor, and two year refrigeration warranty.

AdVantage Plus Accessories

Part No.	Description
65E	65LPM Vacuum Pump – 2 stage with gas ballast and built-in VBS
OME	Oil Mist Eliminator
SC	Stoppering configuration – top down pneumatic
CL	Clean Room Configuration
357376	Wizard control software only for customer supplied PC
358085	Complete Wizard control computer workstation
351999	Removable bottom stainless steel product tray for vials
351981	Standard bulk stainless steel tray
1000000686	Validation guide and workbook
MVP™	Special vial product placement temperature probe assembly
PP4	Additional 4 thermocouple jacks with type T probes included
100001486	Latch kit, 3 to 1 shelf or 2 to 1 shelf
Various	Thermoguard product trays – triple rings help dispel edge effects

Specifications

Refrigeration Model	ES	XL	EL
Condenser Temperature	-53°C	-70°C	-85°C
Condenser Capacity		6 liters	
Shelf Freeze Temperature	-45°C	-60°C	-65°C
Shelf Temperature Control Range	-40°C to +60°C	-40°C to +60°C	-55°C to +60°C
Shelf Temperature Uniformity		±1.0°C	
Cabinet Dimensions (W x D x H)		66 cm x 71 cm x 73 cm (26 in x 28 in x 29 in)	
Weight (approximate)	118 kg (260 lb)	136 kg (300 lb)	145 kg (320 lb)
Stoppering (Optional)	Top down pneumatic, 60 psi (4 bar) compressed air required		
Vacuum Pump (sold separately)	65 lpm to 194 lpm recommended		
Electrical Requirements	208/230V, 60 Hz 220/240V, 50 Hz		
Breaker Amperage	10	10	15

Shelf Configurations	1 Shelf	2 Shelf	3 Shelf
Shelf Area	970 cm ² (1.04 ft ²)	1,940 cm ² (2.08 ft ²)	2,910 cm ² (3.13 ft ²)
Shelf Clearance	158 mm (6.25 in)	73 mm (2.87 in)	44.5 mm (1.75 in)



Committed to Product Excellence...and Continuous Support

SP Industries

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