



Thermo Scientific Savant SpeedVac
Concentrators and SpeedVac Kits



your samples
our obsession

Thermo
SCIENTIFIC



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SpeedVac Kit Selector Guide	SpeedVac Kits	Explorer SpeedVac Concentrator	Concentrator Technical Specifications	Rotors and Carriers	Refrigerated Vapor Traps and Universal Vacuum Systems	Pumps	Chemical Traps, Tubing Kits and Accessories

Quick and efficient sample evaporation

We invented the centrifugal vacuum concentrator and decades after this breakthrough innovation, scientists around the world continue to use Thermo Scientific Savant SpeedVac concentrators to remove solvents from their samples.

Our SpeedVac® systems use state-of-the-art centrifugation, vacuum and heat technologies for removing solvents and concentrating samples

while maintaining sample integrity. As a market leader who invented the centrifugal vacuum concentrator, we are able to offer a diverse product range, providing solutions for a wide variety of solvent applications. These applications range from the traditional drying down of DNA preparations in water and methanol, to the more complex and aggressive applications presented by the combinatorial chemistry and drug discovery sectors of the pharmaceutical industry.

To make the selection of a SpeedVac system easier than ever, we now offer SpeedVac Kits.

SpeedVac kits are complete packages designed for your most popular applications. Now it is easier than ever to get the perfect SpeedVac system. Everything you need is under one part number. See pages 4 and 5 for details on selecting the right SpeedVac kit for your needs.

Configure your own SpeedVac system

We offer the widest choice of vacuum concentrators in the industry. You can choose to configure your system by choosing a concentrator, pump, cold traps, rotor and accessories. See pages 22 and 23 for information on configuring your own SpeedVac system.



Thermo Scientific Savant SpeedVac Kit Selector Guide:

There are several things to consider when choosing your SpeedVac system. Selecting the correct system is crucial for optimum performance and reliability. All of our SpeedVac kits are complete systems, containing everything you need under one part number – no guesswork, no hassle. Use the selection guide below to select the right system for your application.

SpeedVac Kits include four main components:

- Concentrator
 - Trap
 - Rotor
 - Pump
- In addition, our SpeedVac kits have all the necessary components and accessories under one part number

Choose the right SpeedVac Kit for your solvent or solvent combination

1. Look at the solvent and/or solvent combinations column in the left side of the chart below, and determine which you will be running.



Model No.	DNA120	DNA120-OP	ISS110 P1	SPD1010 P1	SPD111V P1	SPD111V P2	SPD121P P1	
Rotor Included with SpeedVac kit	36 X 1.5 ml microcentrifuge tubes	36 X 1.5 ml microcentrifuge tubes	64 X 1.5 ml microcentrifuge tubes	40 X 1.5 ml microcentrifuge tubes	40 X 1.5 m microcentrifuge tubes	40 X 1.5 m microcentrifuge tubes	64 X 1.5 ml microcentrifuge tubes	
	Small Capacity		Medium Capacity					
SOLVENT								
Acetic Acid								MODULAR
Acetone								MODULAR
Acetonitrile				INTEGRATED	MODULAR	LYOPHILLIZATION		
Ammonium Hydroxide		INTEGRATED*						
Chloroform								MODULAR
DMSO								
DMF								
Ethanol				INTEGRATED	MODULAR	LYOPHILLIZATION		
Ethyl Acetate								MODULAR
Formic Acid								
Hexane								MODULAR
Hydrochloric Acid								
Isopropanol		INTEGRATED*	INTEGRATED		MODULAR			
Methanol				INTEGRATED	MODULAR	LYOPHILLIZATION		
Methylene Chloride				INTEGRATED				MODULAR
PCR Buffers (Aqueous)	INTEGRATED*		INTEGRATED					
Toluene								
TFA								
Water	INTEGRATED*			INTEGRATED	MODULAR	LYOPHILLIZATION		
SOLVENT COMBINATIONS								
Acetonitrile and Water				INTEGRATED	MODULAR	LYOPHILLIZATION		
Methylene Chloride and TFA								
Methanol and Chloroform								MODULAR
Ethanol and Water	INTEGRATED*		INTEGRATED		MODULAR	LYOPHILLIZATION		
Methanol and Water				INTEGRATED	MODULAR	LYOPHILLIZATION		
Acetone and HCL								
Drug Metabolites in SPE/Urine								MODULAR
DCM and Heptane								
Methylene Chloride and MEOH								
THF/Pyridine (95:5)								
DMSO and Methanol								

2. Scroll across the chart to determine which SpeedVac kit is right for you. For your convenience, the chart is separated by colors with small capacity models on the left, medium capacity in the middle and large capacity on the right.

Choosing a large capacity system may be necessary if you are handling large sample volumes, or need a high throughput of samples. Rotors included with the SpeedVac kit are noted just under the model number. If you need a different rotor/capacity, see our additional rotors on pages 24-27.

3. If a highlighted cell says INTEGRATED, that means this concentrator has a built-in pump and cold trap, requiring less set-up time and transport.

Cells with MODULAR include a pump and cold trap, separate from the concentrator unit, allowing for greater flexibility in set-up space and for use with other equipment such as a gel dryer.

Cells with LYOPHILLIZATION indicate SpeedVac kits designed for this application.

Don't see your solvent, solvent combination, or capacity requirements on this chart?

You can still configure your own SpeedVac system. Contact us at speedvac@thermofisher.com

Accessories

Additional accessories are available to enhance the performance of your SpeedVac system. See pages 24-27 for a listing of additional rotors and accessories.



	SPD131DDA P1	SPD131DDA P2	SPD2010 P1	SC210 P1	SC250EXP P1	SC250EXP P2
	40 X 12x75mm tubes	24 X 1 dram vials (15 x 45 mm) tubes	200 X 1.5 ml microcentrifuge tubes	200 X 12x75mm tubes	4 shallow or 4 deepwell microwell plates	4 shallow or 4 deepwell microwell plates
	Medium Capacity		Large Capacity			
SOLVENT						
Acetic Acid	MODULAR				MODULAR	
Acetone					MODULAR	
Acetonitrile			INTEGRATED	MODULAR		
Ammonium Hydroxide	MODULAR				MODULAR	
Chloroform						MODULAR
DMSO		MODULAR				MODULAR
DMF		MODULAR				MODULAR
Ethanol			INTEGRATED	MODULAR		
Ethyl Acetate					MODULAR	
Formic Acid	MODULAR				MODULAR	
Hexane					MODULAR	
Hydrochloric Acid	MODULAR				MODULAR	
Isopropanol						
Methanol			INTEGRATED	MODULAR		
Methylene Chloride					MODULAR	
PCR Buffers (Aqueous)			INTEGRATED			
Toluene		MODULAR				MODULAR
TFA	MODULAR				MODULAR	
Water			INTEGRATED	MODULAR		
SOLVENT COMBINATIONS						
Acetonitrile and Water			INTEGRATED	LYOPHILLIZATION		
Methylene Chloride and TFA	MODULAR				MODULAR	
Methanol and Chloroform						MODULAR
Ethanol and Water			INTEGRATED	LYOPHILLIZATION		
Methanol and Water			INTEGRATED	LYOPHILLIZATION		
Acetone and HCL	MODULAR				MODULAR	
Drug Metabolites in SPE/Urine					MODULAR	
DCM and Heptane					MODULAR	
Methylene Chloride and MEOH	MODULAR				MODULAR	
THF/Pyridine (95:5)					MODULAR	
DMSO and Methanol	MODULAR				MODULAR	

Thermo Scientific Savant DNA120, DNA120-OP and ISS110 SpeedVac Kits

Our easy-to-use, small capacity DNA120 and ISS110 SpeedVac kits are the ideal choice for nucleic acid applications.



Savant DNA120 SpeedVac Kit includes 36 x 1.5 mL rotor

Savant™ DNA120

The Thermo Scientific Savant DNA120 high-performance DNA SpeedVac Concentrator offers rapid and efficient concentration, and drying of small-volume DNA/RNA samples.

Savant DNA 120-OP

Designed for use with oligos, our Savant DNA 120-OP model features a glass cover that is chemically resistant to Ammonium Hydroxide. Also included is an ANT100 post trap with ammonia neutralizing solution ANS121.

What's included in SpeedVac Kits?

Savant DNA120

- DNA concentrator with integrated pump
- RD36 rotor for 36 x 1.5mL microtubes

Savant DNA120-OP

- DNA concentrator with integrated pump and glass cover
- RD36 rotor for 36 x 1.5mL microtubes
- ANT100 chemical trap
- ANS121 ammonium neutralizing solution

Product Features

- Corrosion resistant, PTFE coated chamber provides years of lasting service
- Built-in, oil free vacuum pump provides maintenance-free operation
- Integrated and compact design
- Extremely quiet operation
- Choice of three drying rates.
- Dual digital timers for independent control of heat and run times

Solvents and Solvent Combinations - DNA120

- PCR buffers (aqueous)
- Water
- Ethanol and water

Solvents and Solvent Combinations - DNA120-OP

- Ammonium hydroxide
- Isopropanol
- PCR buffers (aqueous)

Typical Applications - DNA120

- DNA/RNA preparation prior to analysis by electrophoresis or microarrays
- Labeling cDNA with fluorescent dyes
- Drying PCR samples in aqueous buffers

Typical Applications - DNA120-OP

- Drying synthetic oligonucleotides in ammonium hydroxide

For additional rotors and accessories see pages 24-27
For detailed technical specification see page 22-23

Contact us at speedvac@thermofisher.com
for applications support.



ISS110 P1 SpeedVac Kit includes built-in cold trap, pump, 64 x 1.5 mL rotor and 1L bottle of Thermo Scientific CryoCool heat transfer fluid



Savant ISS110

The Savant ISS110 high-capacity DNA SpeedVac vacuum concentrator is designed for efficient processing of large batches of DNA/RNA samples.

Product Features

- Built in ETFE coated vacuum pump provides years of lasting service
- Integrated, four liter -50°C refrigerated vapor trap
- Choice of three drying rates

Recommended Solvents and Solvent Combinations

- PCR buffers (aqueous)
- Ethanol and water
- Isopropanol

Typical Applications - ISS110

- DNA/RNA preparation prior to analysis by electrophoresis or microarrays
- Labeling cDNA with fluorescent dyes
- Drying PCR samples in aqueous buffers

What's included in Savant ISS110 P1 SpeedVac Kit?

- Basic integrated concentrator system with vacuum pump and -50°C cold trap
- 64 x 1.5mL rotor (RH64-11)
- CryoCool™ heat transfer fluid (1L)

Savant DNA120, DNA120-OP and ISS110 SpeedVac Kit Ordering Information

Model No.	Description	Voltage	Shipping Dimensions W x H x D in (mm)	Shipping Weight lbs (kg)
DNA120-115	DNA120 SpeedVac Kit	115V/60 Hz	11 x 11 x 25 (290 x 290 x 630)	86 (39)
DNA120-230	DNA120 SpeedVac Kit	230V/50 Hz	11 x 11 x 25 (290 x 290 x 630)	86 (39)
DNA120-OP-115	DNA 120-OP SpeedVac Kit	115V/60 Hz	11 x 11 x 25 (290 x 290 x 630)	86 (39)
DNA120-OP-230	DNA 120-OP SpeedVac Kit	230V/50 Hz	11 x 11 x 25 (290 x 290 x 630)	86 (39)
ISS110P1-115	ISS110 P1 SpeedVac Kit	115V/60 Hz	25 x 16 x 26 (620 x 380 x 660)	152 (69)
ISS110P1-230	ISS110 P1 SpeedVac Kit	230V/50 Hz	25 x 16 x 26 (620 x 380 x 660)	152 (69)

Thermo Scientific Savant SPD1010 and SPD2010 SpeedVac Kits

Our integrated Savant SpeedVac concentrators feature a microprocessor control panel with digital display. Both models fully incorporate four individual components: concentrator bowl, refrigerated trap, vacuum gauge and a diaphragm pump.



SPD1010 P1 SpeedVac Kit includes 40 x 1.5 mL rotor and 1L bottle of CryoCool heat transfer fluid

Savant SPD1010 and SPD2010

Product Features

- Easily programmable
- Integrated design for plug-in simplicity and control
- Digital display for viewing and setting parameters (time, temperature, vacuum)
- Vacuum control for vacuum ramping and ultimate level setting to optimize drying times and eliminate bumping of different solvent mixtures
- Choose the SPD1010 model for capacities up to 100mL; SPD2010 model for capacities up to 500mL
- All-in-one design makes setup and installation easy
- Dual timers for independent control of heater and run time

- Oil-free vacuum source eliminates the need to add/change oil
- Standard PTFE coated chamber
- Radiant cover for chemical resistance and added heat source (enhanced drying times)
- Standard glass safety lids

Solvent and Solvent Combinations - SPD1010

- Acetonitrile
- Ethanol
- Methanol
- Methylene Chloride
- Water
- Acetonitrile and Water
- Methanol and Water

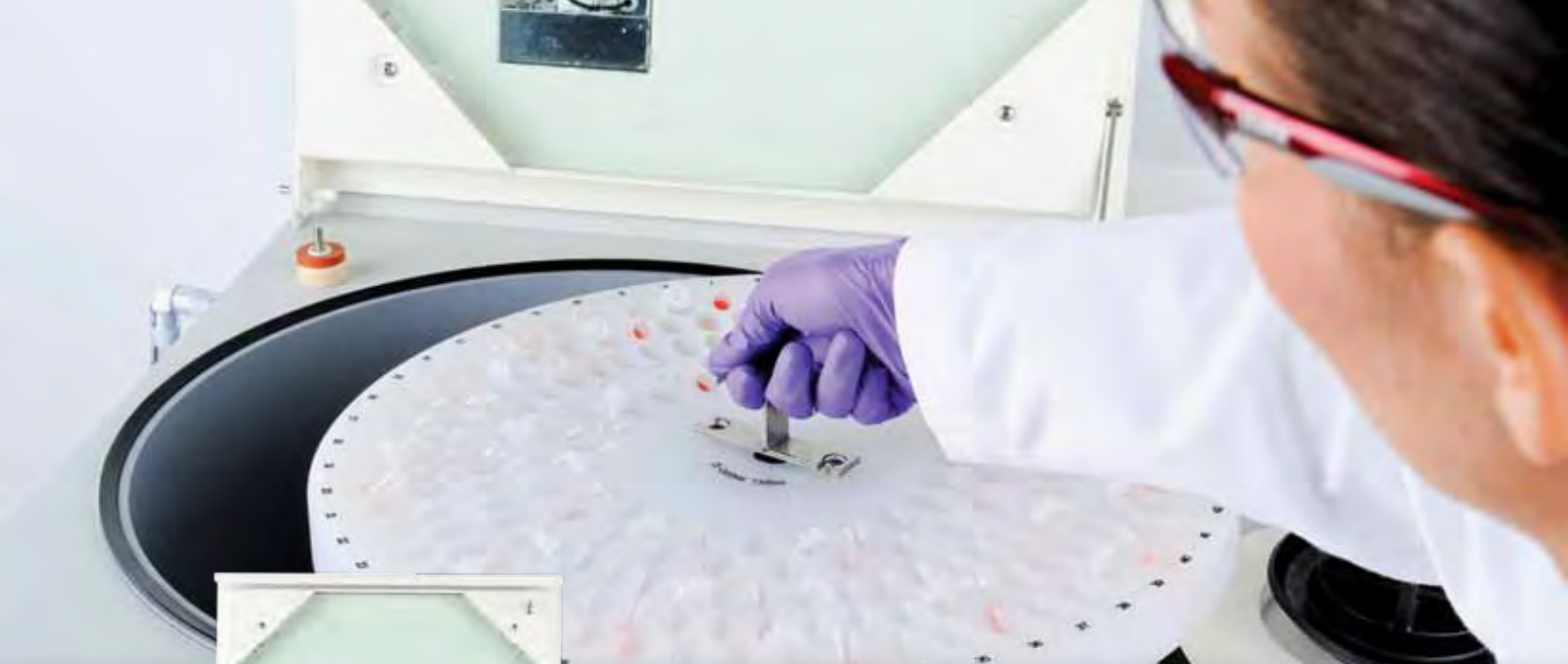
Solvent and Solvent Combinations - SPD2010

- Acetonitrile
- Ethanol
- Methanol
- Water
- Acetonitrile and Water
- Ethanol and Water
- Methanol and Water

Typical Applications - Both Models

- HPLC fractions with water/0.1% trifluoroacetic acid
- Reversed-phase SPE eluants

See pages 24-27 for additional rotors and accessories. For detailed technical specifications see page 22-23.



SPD2010 P1 SpeedVac Kit includes 200 x 1.5 mL rotor and 1L bottle of CryoCool heat transfer fluid

What's included in the following SpeedVac Kits?

Savant SPD1010 P1

- Integrated SpeedVac system including oil-free vacuum pump and -50°C cold trap
- 40 x 1.5mL rotor (RH40-11)
- CryoCool heat transfer fluid (1L)

Savant SPD2010 P1

- Integrated SpeedVac system including oil-free vacuum pump and -50°C cold trap
- 200 x 1.5mL rotor (RH200-12)
- CryoCool heat transfer fluid (1L)

Contact us at speedvac@thermofisher.com for applications support.

Savant SPD1010 and SPD2010 SpeedVac Kit Ordering Information

Model No.	Description	Voltage	Shipping Dimensions W x H x D in (mm)	Shipping Weight lbs (kg)
SPD1010P1-115	SPD1010 P1 SpeedVac Kit	115 V/60 Hz	32 x 40 x 35 (813 x 1016 x 889)	190 (86)
SPD1010P1-230	SPD1010 P1 SpeedVac Kit	230 V/50 Hz	32 x 40 x 35 (813 x 1016 x 889)	190 (86)
SPD2010P1-220	SPD2010 P1 SpeedVac Kit	220 V/60 Hz	32 x 40 x 33 (813 x 1016 x 838)	260 (118)
SPD2010P1-230	SPD2010 P1 SpeedVac Kit	230 V/50 Hz	32 x 40 x 33 (813 x 1016 x 838)	260 (118)

Thermo Scientific Savant SPD111V P1 and P2 SpeedVac Kits

Our modular concentrators provide flexibility for your benchtop space. Perfect for evaporation, non-aggressive organics such as methanol, acetonitrile, water and HPLC fractions. Choose the SPD111V P1 SpeedVac kit for standard evaporation or the SPD111V P2 SpeedVac kit when you want to lyophilize.



Savant SPD111V P1 and P2 Product Features

- Variable drying rate
- Time/temperature display incorporating membrane touch pad switches
- Safety coverlock
- Manual/auto timed run
- Choose the SPD111V P2 for lyophilization applications
- Deep aluminium PTFE coated chamber
- Standard glass safety lid

Solvent and Solvent Combinations - SPD111V P1

- Acetonitrile
- Ethanol
- Isopropanol
- Methanol
- Water
- Acetonitrile and Water
- Ethanol and Water
- Methanol and Water

Solvent and Solvent Combinations - SPD111V P2

- Acetonitrile
- Ethanol
- Methanol
- Water
- Acetonitrile and Water
- Ethanol and Water
- Methanol and Water

Savant SPD111V P1 SpeedVac kit includes universal vacuum system with oil free pump and -50°C cold trap, a 40x1.5ml tube rotor, glass flask, tubing and fitting kit, and 1L bottle of CryoCool heat transfer fluid





Savant SPD111V P2 SpeedVac kit includes ultra-low temperature vapor trap, vacuum pump and accessories pictured below.

Typical Applications

- Drying biomolecules in HPLC fractions
- Evaporating purification solvents
- Drying extracts of natural products in drug assays
- Lyophilization for all the above (SPD111V P2)

See pages 24-27 for additional rotors and accessories. For detailed technical specifications see page 22-23.

Contact us at speedvac@thermofisher.com for applications support.

What's included in SpeedVac Kits?

Savant SPD111V P1

- SpeedVac concentrator, molecular biology
- Universal vacuum system (UVS 400) including an oil-free vacuum pump and a -50°C refrigerated vapor trap
- Glass condensation flask
- 40 x 1.5mL rotor (RH40-11)
- Tubing package including 12' of thick-walled vacuum tubing, cutter, clamps and fittings, BV130 manual bleed valve and instructions
- CryoCool heat transfer fluid (1L)

Savant SPD111V P2

- SpeedVac concentrator, basic molecular biology
- -105°C, ultra-low temperature refrigerated vapor trap
- VPL120 high vacuum pump
- 40 x 1.5mL rotor (RH40-11)
- Universal tubing package
- Digital vacuum gauge
- Chemical trap kit for use with disposable cartridge
- Disposable cartridge with color indicator for trapping acids and water vapor
- Glass condensation flask
- Vacuum pump lubricating oil
- CryoCool heat transfer fluid (1L)



Savant SPD111 V SpeedVac Kit Ordering Information

Model No.	Description	Voltage	Shipping Dimensions W x H x D in (mm)	Shipping Weight lbs (kg)
SPD111VP1-115	SPD111V P1 SpeedVac Kit	115 V/60 Hz	32 x 34 x 82 (813 x 864 x 2083)	300 (136)
SPD111VP1-230	SPD111V P1 SpeedVac Kit	230 V/50 Hz	32 x 34 x 82 (813 x 864 x 2083)	300 (136)
SPD111VP2-115	SPD111V P2 SpeedVac Kit	115 V/60 Hz	32 x 34 x 82 (813 x 864 x 2083)	360 (164)
SPD111VP2-230	SPD111V P2 SpeedVac Kit	230 V/50 Hz	32 x 34 x 82 (813 x 864 x 2083)	360 (164)

Thermo Scientific Savant SPD121P, SPD131DDA SpeedVac Kits

Reliable and versatile our SPD121P and 131DDA SpeedVac Kits can be used with a wide variety of solvents. The SPD131DDA kits offer resistance to TFA, DMSO and other aggressive solvents used in combinatorial chemistry applications.

Savant SPD121P

Product Features

- Deep aluminum PTFE coated chamber
- Safety cover lock
- Radiant glass safety cover improves drying time by applying radiant IR heat to samples
- PTFE plumbing and tubing
- Two valve manifold with built-in automatic bleeder valve
- Time/temperature display incorporating membrane touch pad switches
- Time/vacuum run
- Variable drying times from 35°C to 80°C in 5 degree increments
- Manual/auto timed run
- Endpoint mode terminates run when pre-set vacuum level is reached
- Built-in vacuum gauge and vacuum display
- Standard glass safety lids

See pages 24-27 for additional rotors and accessories. For detailed technical specifications see page 22-23.

Contact us at
speedvac@thermofisher.com
for applications support.

Solvents and Solvent

Combinations - SPD121P P1

- Acetone
- Chloroform
- Ethyl acetate
- Hexane
- Methylene chloride

Typical Applications

- Removing ethyl acetate from samples for CAT assay
- Drug metabolites in solid phase extracts
- Analyte elution solvents for evaporation.



What's included in the Savant SPD121P P1 SpeedVac Kit?

- SpeedVac concentrator
- -105°C, ultra-low temperature refrigerated vapor trap
- OFP400 oil free, ETFE/PFA four-headed pump
- 64 x 1.5mL rotor (RH64-11)
- Digital vacuum gauge
- Chemical trap kit for use with disposable cartridge
- Disposable cartridge with color indicator for trapping acids and water vapor
- Tubing and fitting kit including 4' of clear, thick-walled vacuum tubing, two clamps and a cutter
- Glass condensation flask
- CryoCool heat transfer fluid (1L)

Savant SPD121 P SpeedVac Kit Ordering Information

Model No.	Description	Voltage	Shipping Dimensions W x H x D in (mm)	Shipping Weight lbs (kg)
SPD121PP1-115	SPD121P P1 SpeedVac Kit	115 V/60 Hz	32 x 34 x 82 (813 x 864 x 2083)	355 (161)
SPD121PP1-230	SPD121P P1 SpeedVac Kit	230V/50Hz	32 x 34 x 82 (813 x 864 x 2083)	355 (161)



Savant SPD131DDA

Product Features

- All the product features of the SPD121P plus:
- Radiant lamps within the chamber
- Heated lid for processing high boiling solvents (DMSO, DMF)
- Wider vapor port and tubing for enhanced vapor throughput – reducing drying times
- Adjustable vacuum level for preventing bumping of difficult solvent mixtures and optimizing drying times
- -5°C trap specifically designed for trapping high boiling point solvents
- Standard glass safety lids

Solvents and Solvent Combinations - SPD131DDA P1

- Acetic acid
- Ammonium hydroxide
- Formic acid
- Hydrochloric acid
- TFA
- Methylene chloride and TFA
- Acetone and HCL
- Methylene chloride and MEOH
- DMSO and methanol

See pages 24-27 for additional rotors and accessories. For detailed technical specifications see page 22-23.

Solvents and Solvent Combinations - SPD131DDA P2

- DMSO
- DMF
- Toluene

Typical Applications - SPD131DDA P1

- Solid phase extractions
- Drying lipid extracts
- Flash chromatography fractions
- Solid phase synthesis cleavage solutions such as protein hydrolyzates and evaporating synthesis solids



Typical Applications - SPD131DDA P2

- Compound management
- Evaporating dissolution solvents

What's included in the following SpeedVac Kits?

Savant SPD131DDA P1

- SpeedVac concentrator, acid resistant
- -105°C, ultra-low temperature refrigerated vapor trap
- OFP400 oil free, ETFE/PFA four-headed pump
- Rotor (RH40-12) for 40 12 x 75mm glass tubes
- Glass condensation flask
- CryoCool heat transfer fluid (1L)
- Tubing and fitting kit including 4' of clear, thick-walled vacuum tubing, two clamps and a cutter

Savant SPD131DDA P2

- SpeedVac concentrator, basic molecular biology
- -5°C refrigerated vapor trap
- Vacuum pump
- Rotor (RH24-15) for 15 15 x 45mm 1 dram vials
- Chemical trap kit for use with disposable cartridge
- Disposable cartridge with color indicator for trapping acids and water vapor
- Tubing and fitting kit including 4' of clear, thick-walled vacuum tubing, two clamps and a cutter
- Glass condensation flask
- CryoCool heat transfer fluid (1L)
- Vacuum pump lubricating oil

Savant SPD131 DDA SpeedVac Kit Ordering Information

Model No.	Description	Voltage	Shipping Dimensions W x H x D in (mm)	Shipping Weight lbs (kg)
SPD131DDAP1-115	SPD131DDA P1 SpeedVac Kit	115 V/60 Hz	32 x 34 x 82 (813 x 864 x 2083)	355 (161)
SPD131DDAP1-230	SPD131DDA P1 SpeedVac Kit	230 V/50 Hz	32 x 34 x 82 (813 x 864 x 2083)	355 (161)
SPD131DDAP2-115	SPD131DDA P2 SpeedVac Kit	115 V/60 Hz	32 x 34 x 82 (813 x 864 x 2083)	350 (159)
SPD131DDAP2-230	SPD131DDA P2 SpeedVac Kit	230 V/50 Hz	32 x 34 x 82 (813 x 864 x 2083)	350 (159)

Thermo Scientific Savant SC210 P1 SpeedVac Kits

Our SC210 P1 SpeedVac kit features an easy-to-use, large capacity concentrator. Use the complete kit package for HPLC fraction and reversed-phase SPE eluant applications.



Savant SC210

Product Features

- PTFE coated chamber provides long lasting durability against harsh solvents
- Three selectable heating levels to optimize evaporation
- Automatic bleeder valve automatically provides vacuum at the beginning of a run and bleeds chamber to atmospheric pressure at the end of a run

Recommended Solvents and Solvent Combinations

- Acetonitrile
- Methanol
- Ethanol
- Water

Typical Applications

- HPLC fractions with water/0.1% trifluoroacetic acid
- Reversed-phase SPE eluants



Contact us at speedvac@thermofisher.com for applications support.

Savant SC210 P1 SpeedVac kit includes ultra-low temperature vapor trap, vacuum pump and accessories pictured here.





What's included in the Savant SC210 P1 SpeedVac Kit?

- High-capacity SC210A SpeedVac concentrator
- -105°C, ultra-low temperature refrigerated vapor trap
- VLP120 vacuum pump
- 200 x 1.5mL rotor (RH200-12)
- Digital vacuum gauge
- Universal tubing package
- Chemical trap for use with disposable cartridge
- Disposable cartridge with color indicator for trapping acids and water vapor
- Glass condensation flask
- CryoCool heat transfer fluid (1L)

See pages 24-27 for additional rotors and accessories. For detailed technical specifications see page 22-23.

Savant SC210 P1 SpeedVac Kit Ordering Information

Model No.	Description	Voltage	Shipping Dimensions W x H x D in (mm)	Shipping Weight lbs (kg)
SC210P1-115	SC210 P1 SpeedVac Kit	115 V/60 Hz	32 x 34 x 82 (813 x 864 x 2083)	450 (205)
SC210P1-230	SC210 P1 SpeedVac Kit	230 V/50 Hz	32 x 34 x 82 (813 x 864 x 2083)	450 (205)

Thermo Scientific Savant SC250EXP SpeedVac Kits

Our SC250EXP large-capacity benchtop SpeedVac Kits have everything you need to effectively concentrate high boiling point solvents and strong acids and bases. Dual vacuum control provides flexibility to use many solvent types.



Savant SC250EXP

Product Features

- Four IR heat lamps for drying high-boiling point solvents such as DMSO and DMF
- Dual vacuum control of RAMP and LEVEL eliminates samples from bumping and/or freezing, provides optimization for various sample types
- Kalrez® and PTFE coated materials along the entire vapor path for maximum chemical resistance and durability
- Dual valve mechanism for improved durability and exhausting
- Comes complete with enlarged vacuum port, extra wide tubing and new extra large mouth glass condensation flask
- Heated glass lid reduces drying times and prevents condensation
- Digital display of parameters (time, temperature & vacuum)
- Standard glass safety lids

Solvents and Solvent Combinations - SC250EXP P1

- Acetic acid
- Acetone
- Ammonium hydroxide
- Formic acid
- Hydrochloric acid
- TFA
- Methylene chloride and water
- Drug metabolites in SPE/urine
- DCM and heptane
- Methylene chloride and MEOH
- THF/Pyridine (95:5)
- DMSO and methanol

Solvent and Solvent Combinations - SC250EXP P2

- Chloroform
- DMSO
- DMF
- Ethyl acetate
- Hexane
- Toluene
- Methanol and chloroform

Typical Applications - SC250EXP P1

- Solid phase extractions
- Drying lipid extracts
- Flash chromatography fractions
- Solid phase synthesis cleavage solutions such as protein hydrolyzates and evaporating synthesis solids

Typical Applications - SC250EXP P2

- Complete management of evaporating dissolution solvents

See pages 24-27 for additional rotors and accessories. For detailed technical specifications see page 22-23.

Contact us at
speedvac@thermofisher.com
for applications support.

Savant SPD250EXP SpeedVac Kit Ordering Information

Model No.	Description	Voltage	Shipping Dimensions W x H x D in (mm)	Shipping Weight lbs (kg)
SC250P1-115	SC250EXP P1 SpeedVac Kit	115 V/60 Hz	18 x 18 x 25 (450 x 460 x 620)	127 (58)
SC250P1-230	SC250EXP P1 SpeedVac Kit	230 V/50 Hz	18 x 18 x 25 (450 x 460 x 620)	127 (58)
SC250P2-115	SC250EXP P2 SpeedVac Kit	115 V/60 Hz	18 x 18 x 25 (450 x 460 x 620)	127 (58)
SC250P2-230	SC250EXP P2 SpeedVac Kit	230 V/50 Hz	18 x 18 x 25 (450 x 460 x 620)	127 (58)



What's included in the Savant SC250EXP P1 SpeedVac Kit?

- SC250 express concentrator
- -105°C, ultra-low temperature refrigerated vapor trap
- VLP120 vacuum pump
- Model FPR4A rotor and a set of four UPC1 single shelf microplate carriers
- Glass condensation flask
- Tubing kit including 4' of clear, thick-walled vacuum tubing, two clamps and a cutter
- Vacuum pump lubricating oil
- CryoCool heat transfer fluid (1L)

What's included in the Savant SC250EXP P2 SpeedVac Kit?

- SC250 express concentrator
- -5°C refrigerated vapor trap
- VLP120 vacuum
- Model FPR4A rotor and a set of four UPC1 single shelf microplate carriers
- Glass condensation flask
- Tubing kit including 4' of clear, thick-walled vacuum tubing, two clamps and a cutter
- Vacuum pump lubricating oil
- CryoCool heat transfer fluid (1L)

With additional accessories, the SC250EXP large capacity concentrator can be used with up to 140 12x100mm tubes or 20 shallow well microwell plates. Simply use your FPR4A rotor and UPC-1 carriers with the optional Pro-Rotor block inserts and carriers. See page 24-25 for a configuration flow chart and list of blocks and carriers



Thermo Scientific Savant Explorer SpeedVac Concentrator

High-capacity, benchtop concentrator for production and development applications designed to withstand the rigors of the combinatorial chemistry environment



Savant Explorer SpeedVac Concentrator

Product Features

- High capacity – accommodates a large number of samples in a wide variety of formats
- Unique “clam-shell” design for easy, safe access to samples
- Dual cold trap options including the direct-drain configuration or use of the convenient glass flask which can be inserted into the trap
- High efficiency cold trap reduces drying times
- Adjustable temperature range: 35° to 85°C
- Constructed of highly chemically resistant materials withstand constant use with solvents.
- Oil-free, maintenance-free vacuum pump
- Easy-to-use, intuitive control panel
- IntelliTemp™ temperature monitoring and control
- Five pre-programmed vacuum ramps are available to minimize or prevent sample “bumping”
- Power operated lid for convenience and safety
- Control software for PC operation and data-logging

IntelliTemp Temperature Monitoring and Control

Accurate monitoring and control of the run by temperature is possible with the Explorer's IntelliTemp system. The IntelliTemp probe can be inserted directly into the sample or used to monitor the block or carrier temperature. The "Auto-Dry" function automatically ends the run when a pre-set temperature is reached.

Advanced Controls for Enhanced Performance and Convenience

Frequently used protocols can be created to determine the primary controls which are:

- Vacuum level
- Temperature
- IntelliTemp
- Heat time
- Radiant lamp time
- Run time
- Vacuum ramp

These can be saved under a user defined alphanumeric file name and recalled at a later time for use.

Contact us at speedvac@thermofisher.com for applications support and custom configurations of your Explorer system.

Savant Explorer SpeedVac Concentrator Ordering Information

Model No.	Description	Contains	Voltage	Vacuum Pump Capacity
EXPLORER-220*	Explorer SpeedVac Vacuum Concentrator	6-Position Rotor, Glass Flask, Exhaust Recovery Vessel	220 V / 60 Hz	36 liters/min. at 60 Hz
EXPLORER-230	Explorer SpeedVac Vacuum Concentrator	6-Position Rotor, Glass Flask, Exhaust Recovery Vessel	230 V / 50 Hz	32 liters/min. at 50 Hz

Advanced Controls for Enhanced Performance and Convenience



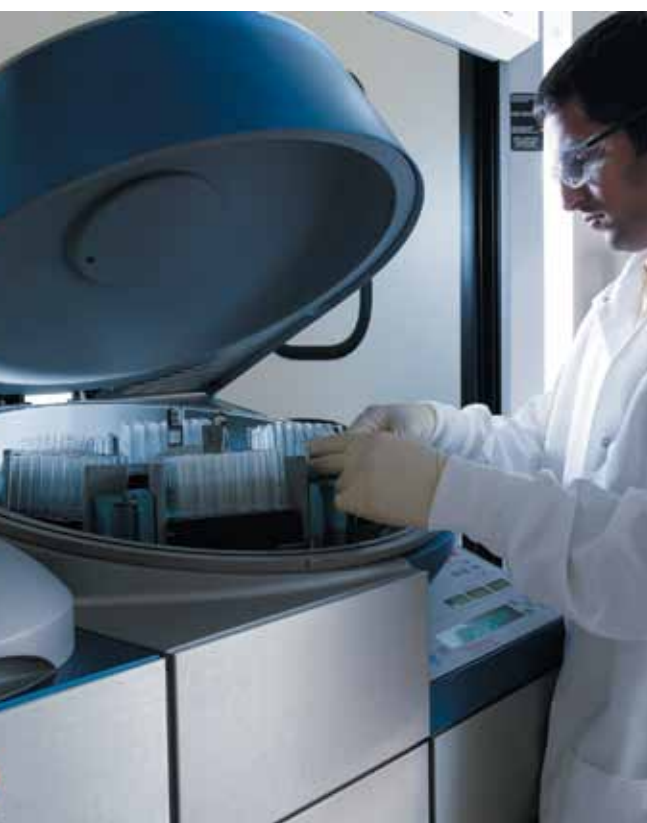
Explorer SpeedVac Rotors and Accessories

Model No.	Description
Rotors	
ESR6	6-position Snowflake Rotor. Includes 5 carriers and 1 block probe carrier. Fits tubes up to 150 mm.
EXP-H200	High Capacity H-Rotor. 8 block capacity. Fits up to 100 mm tube height.
Aluminum Rotor Blocks - Microcentrifuge Tubes	
RBA25-11-39	1.5 mL (11 x 39 mm). Holds 150 tubes (ESRG), 200 tubes (EXP-H200)
Aluminum Rotor Blocks - Glass and Plastic Tubes	
RBA35-13-100	13 x 100 mm. Holds 210 tubes (ESRG), 280 tubes (EXP-H200)
RBA24-16-100	16 x 100 mm. Holds 144 tubes (ESRG), 192 tubes (EXP-H200)
RBA15-16-125	16 x 125 mm. Holds 90 tubes (ESRG)
RBA24-17-60	17 x 60 mm. Holds 144 tubes (ESRG), 192 tubes (EXP-H200)
Aluminum Rotor Blocks - Centrifuge Tubes	
RBA6-30-115	50 mL conical (30 x 115 mm). Holds 36 tubes (ESRG)
RBA24-16-100	15 mL conical (17 x 120 mm). Holds 144 (ESRG)
Aluminum Rotor Blocks - Vials	
RBA54-12-32	12 x 32 mm. Holds 324 tubes (ESRG), 432 tubes (EXP-H200)
RBA24-15-45	1 dram vials, 15 x 45 mm. Holds 144 tubes (ESRG), 192 tubes (EXP-H200)
RBA12-28-58	20 mL scintillation vials, 28 x 58 mm. Holds 72 tubes (ESRG), 96 tubes (EXP-H200)
Aluminum Rotor Blocks - Flasks	
RBA2-FLSK-100	100 mL round or flat bottom. Holds 12 tubes (ESRG)
RBA1-FLSK-250	250 mL round or flat bottom. Holds 6 tubes (ESRG)
Aluminum Rotor Blocks - Breakers	
RBA24-17-31	3 mL beakers (17 x 31 mm). Holds 144 tubes (ESRG), 192 tubes (EXP-H200)
Aluminum Rotor Blocks - Microplates	
UPC2-EXP	Deepwell, shallow well (double shelf carrier). Holds 12 tubes (ESRG)
UPC5-EXP	Shallow well (5-shelf carrier). Holds 30 tubes (ESRG)
Aluminum Rotor Blocks - Heat Sink Plates	
HTSP-96V	V bottom, 96-well microplate
HTSP-96R	Round bottom, 96-well microplate
HTSP-24R	Round bottom, 24-well microplate
Accessories for Explorer	
EXP-SOFT	Software Suite for data logging
GCF4-EXP	Glass flask
PROBE-EXP	Temperature probes
PTFE-SLV	PTFE probe covers
CC120/EXP	Cart
SCT120	Chemical trap (order cartridges separately)
DC120A	Disposable cartridge for neutralizing acid
DC120R	Disposable cartridge for trapping volatile radioactivity
DTK120R	Chemical trap kit includes SCT120, DC120R and tubing
ANT100	Post-trap assembly (NSA300TF acid neutralizing and ANS 121/4 ammonia neutralizing solutions ordered separately)
ANS121	Ammonia neutralizing solution
NSA300TF	Neutralizing solution for acid
SCC1	CryoCool heat transfer fluid (1L)

Vacuum Display	Adjustable Vacuum Setting	Adjustable Vacuum Ramp	Shipping Dimensions W x H x D in (mm)	Shipping Weight (Concentrator, Cold Trap, Pump) lbs. (kg)
Atmosphere - 500 mtorr	200 - 0.7 torr, max.	1 to 4, OFF, custom	35.5 x 25 x 25.6 (902 x 635 x 651)	600 (273)
Atmosphere - 500 mtorr	200 - 0.7 torr, max.	1 to 4, OFF, custom	35.5 x 25 x 25.6 (902 x 635 x 651)	600 (273)

Application Note: Sample temperature control during rapid solvent evaporation

Efficient vacuum concentration requires the use of heat to counteract the effects of evaporative cooling. However, excessive temperatures will compromise the viability of many pharmaceutical compounds, proteins and microorganisms. This application note describes the use of direct (in-sample) and indirect (rotor block) temperature measurement to control heating and protect sample viability during rapid vacuum concentration.



Introduction

Many techniques in drug discovery, molecular biology and analytical chemistry require solvent removal at some point. Solvent removal often acts as the slowest step in a process and limits the overall throughput of a laboratory.

There are several methods one can employ to remove solvent. Vacuum centrifugal concentration is the method of choice. The combination of vacuum and heat results in solvent evaporation. Centrifugation minimizes violent boiling of the sample ("bumping") that may cause sample loss and cross contamination between vessels. Vacuum lowers the boiling point of the solvent. Evaporation of the solvent removes heat and causes sample temperatures to drop significantly. Application of heat to the system counteracts the effects of evaporative cooling and speeds the drying process.

Researchers are often reluctant to use heat in vacuum concentration because of concerns about viability of the product. Once evaporation is complete, continued heating will raise the temperature of the remaining sample and may cause thermal degradation.

The Thermo Scientific SpeedVac Explorer system incorporates IntelliTemp, a feature that enables active sample temperature monitoring and control during vacuum concentration. On-board software allows either unit to control sample conditions under two different modes:

- AutoDry—heating stops when the programmed sample temperature is achieved.
- Timed-plus—sample temperature is controlled at the programmed temperature for a period of time. Temperature can be monitored from four in-sample or rotor block probes at once.

Materials

Instruments:

- Explorer SpeedVac System
- Explorer Software Suite with computer
- Aluminum rotor blocks

Reagents:

- Dichloromethane, ACS grade
- Methanol, laboratory grade
- Methylsulfoxide (DMSO), ACS grade
- N,N-Dimethylformamide (DMF), laboratory
- 8 ml glass sample vial, screw thread

Key features utilized:

- Timed-Plus (+) Mode.
- The Explorer SpeedVac System monitors the sample temperature and regulates the heat to maintain that temperature during the entire run. This prevents samples from overheating during the run. Completion of the run is based upon the preset timer.

Custom Vacuum Ramping.

The Explorer SpeedVac System slows the rate of vacuum change within a specified pressure range. The user will typically specify this range to bracket the vapor pressure of any solvents used in order to prevent "bumping" of the samples. Outside the specified range, the pressure decreases at full speed in order to minimize pull-down times.

Results

Figure 1 Vial to vial reproducibility of DCM evaporation

Solvent: Dichloromethane (DCM)
 Vessel: 8 ml glass vial
 Volume: 4 ml per vial
 Sample Temperature Tolerance:
 < 45°C
 Heat time: 30 min
 Chamber temperature: 65°C
 Block target temperature: 40°C
 Vacuum: 20 torr
 Ramp: rate 3, 450-100 torr
 (60% of full)
 Dry down time: 1 hr 5 min

Conclusion:

The data represents another example of drying a volatile solvent. Different vacuum ramping was selected because DCM has a higher vapor pressure value of 430 torr at 25°C. Three independent sample temperature probes were used to monitor the uniformity of heat applied at different locations. TR (sample temperature in the middle of the block) Tg (sample temperature in the middle of the block) Ty (sample temperature in the corner of the block)
 The graph shows that the different locations of the block received equivalent heat and all samples dried at the same time.

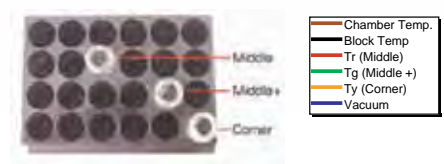
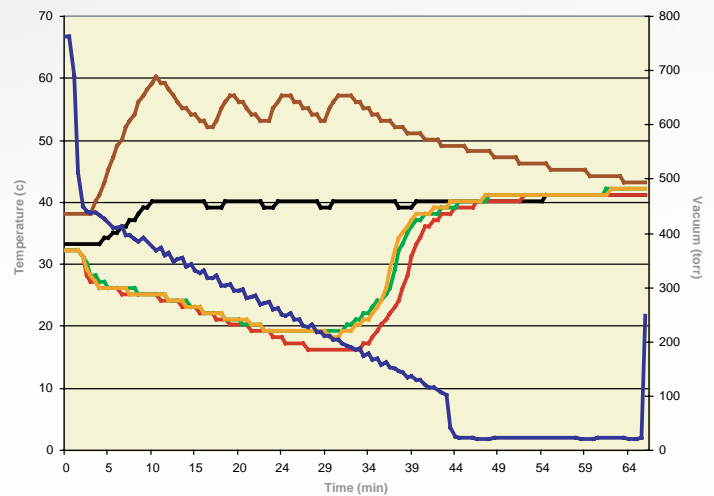
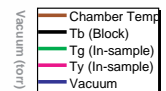
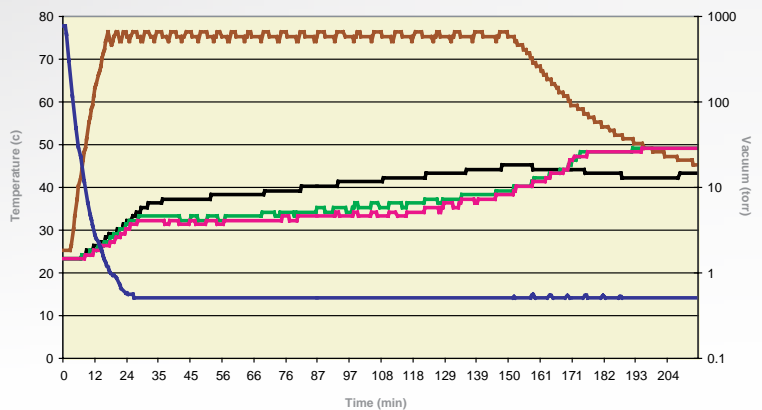


Figure 2 Controlled sample temperature during evaporation of DMSO

Solvent: DMSO (dimethyl sulfoxide)
 Vessel: 8 ml glass vial
 Volume: 4 ml per vial
 Sample Temperature Tolerance: <55°C
 Heat time: 2 hours 30 minutes
 Chamber temperature: 75°C
 Block target temperature: 45°C
 Vacuum: MAX
 (less than 0.7 torr)
 Ramp: full (limited by pump capacity, up to 320 torr/min)
 Dry down time: 3 hours

Conclusion:

The evaporation of DMSO requires high heat for faster removal of the solvent. The Explorer system was able to maintain the pre-set sample temperature under the maximum limit of 55°C.



Conclusions

Application of heat during vacuum concentration counteracts the effects of evaporative cooling and speeds evaporation. The IntelliTemp feature in the Thermo Scientific Explorer SpeedVac system allows accurate monitoring and control of sample temperature. It gives users the ability to employ heat for fast evaporation while still controlling sample temperature within specified limits.

Configure Your Own SpeedVac System

Build your own SpeedVac System

- Flexible custom configured systems
- The Ideal alternative to SpeedVac Kits for complex solvent evaporation applications
- Mix and match your concentrator, pump and cold trap to meet your specific needs

Our technical experts are ready to help

Simply send an e-mail to speedvac@thermofisher.com with the answer to the following questions.

Technical Specification for Integrated Concentrators

Series	Savant DNA120, DNA120-OP and ISS110 SpeedVac Ordering Information					
Model No.	DNA120-115	DNA120-230	DNA1200P-115	DNA1200P-230	ISS110A-115	ISS110P1
Description	DNA120 concentrator with integrated pump includes RD36 rotor		DNA120 concentrator with integrated pump for Oligos includes RD36 rotor		ISS110 A concentrator with integrated pump and cold trap, includes RH200 rotor and 1L bottle of CryoCool	
Voltage	115 V/60 Hz	230 V/50 Hz	115 V/60 Hz	230 V/50 Hz	115 V/60 Hz	230 V/50 Hz
Vacuum Pump	Oil Free ETFE diaphragm		Oil Free ETFE diaphragm		Oil Free ETFE diaphragm	
Max. Vacuum	>19 torr (9 mbar)		>19 torr (9 mbar)		>10 torr (9 mbar)	
Displacement	30 liters/min at 50 Hz	36 liters/min at 60 Hz	36 liters/min at 60 Hz	30 liters/min at 50 Hz	36 liters/min at 60 Hz	30 liters/min at 50 Hz
Vacuum Control Ramp Rate	None		None		None	
Vacuum Level Control Setting	N/A		N/A		N/A	
Refrigerated Vapor Trap	None		None		4 liters/ -50°C	
Heat Setting	3 pre-sets: Ambient, Med (43°C), High (65°C)		3 pre-sets: Ambient, Med (43°C), High (65°C)		3 pre-sets: Ambient, Med (43°C), High (65°C)	
Cover	Plexiglass®		Glass		Plexiglass	
Timer Settings	1 min. to 10 hours		1 min. to 10 hours		None	
Dimensions W x H x D in (mm)	11 x 11 x 25 (290 x 290 x 630)		11 x 11 x 25 (290 x 290 x 630)		25 x 15 x 26 (620 x 380 x 660)	
Weight lbs (kg)	86 (39)		86 (39)		152 (69)	

Technical Specification for Modular Concentrators

Series	Savant SPD111, 121, 131 SpeedVac Ordering Information					
Model No.	SPD111V-115	SPD111V-230	SPD121P-115	SPD121P-230	SPD131DDA-115	SPD131DDA-230
Description	SPD111V concentrator		SPD121P concentrator		SPD131DDA concentrator	
Voltage	115 V/60 Hz	230 V/50 Hz	115 V/60 Hz	230 V/50 Hz	115 V/60 Hz	230 V/50 Hz
Bleeder Valve	Automatic		Automatic (Dual)		Automatic (Dual)	
Exhaust Port size	Standard		Standard		Oversized	
No. of Infrared Chamber Lamps	None		None		2	
Vacuum Control Ramp Rate	None		None		1 to 5	
Vacuum Level Control Setting	None		None		20 to 0.1 torr (26.6 to 0.1 mbar)	
Refrigerated Vapor Trap	Order Separately		Order Separately		Order Separately	
Heat Setting	off, 35 to 80°C in 5°C increments		off, 35 to 80°C in 5°C increments		off, 35 to 80°C in 5°C increments	
Cover	Plexiglass		Radiant Glass (on/off, slaved to heat timer)		Controlled Heat Glass Cover (Off/slave to heat temperature and time)	
Timer Settings	1 min. to 10 hours		1 min. to 10 hours		1 min. to 10 hours	
Dimensions W x H x D in (mm)	14 x 18 x 13 (in), 360 x 460 x 330 mm		14 x 18 x 13 (in), 360 x 460 x 330 mm		14 x 18 x 13 (in), 360 x 460 x 330 mm	
Weight lbs (kg)	37 (17)		44 (20)		44 (20)	



Thermo Scientific Manual and Automated Liquid Handling

We offer a broad range of handheld and automated pipetting systems with a reputation for combining simplicity, comfort and functionality with superior ergonomic design. For more information and to order, visit www.thermoscientific.com/finnpipette

1. What is the material or solute that you are concentrating or drying? Is it Biological or Non-Biological?
 2. What is the solvent or mixture of solvents that your material will be prepared in?
 3. What types of vessels will be used, what will the sample volume and number of samples to be processed be?
 4. Will you be freeze drying your samples?
- Example:**
1. Non-Biological Solute
 2. Ethyl Ether, Phenol, DMSO single solvents at a time
 3. 13x100mm glass tubes, 30 at a time 2 mls in each tube
 4. I do not need to freeze dry my samples

Our applications product specialists will recommend the optimum configuration for your application.

Series	Savant SPD1010 and SPD2010 SpeedVac Ordering Information			
Model No.	SPD1010A-115	SPD1010A-230	SPD2010A-220	SPD2010A-230
Description	SPD1010A concentrator with integrated pump and cold trap, includes GCF400 glass jar		SPD2010A concentrator with integrated pump and cold trap, includes GCF400 glass jar	
Voltage	115 V/60 Hz	230 V/50 Hz	220 V/60 Hz	230 V/50 Hz
Vacuum Pump	Oil-free ETFE diaphragm		Oil-free ETFE diaphragm	
Max. Vacuum	> 10 torr (~9.3mbar)		> 10 torr (~9.3mbar)	
Displacement	36 liters/min at 60 Hz	30 liters/min at 50 Hz	36 liters/min at 60 Hz	30 liters/min at 50 Hz
Vacuum Control Ramp Rate	1 to 5		1 to 5	
Vacuum Level Control Setting	30 to 5.1 torr (40 to 6.8 mbar)		30 to 5.1 torr (40 to 6.8 mbar)	
Refrigerated Vapor Trap	4 liters/ -50°C		4 liters/ -50°C	
Heat Setting	Off: 45 to 80°C in 5°C increments		Off: 45 to 80°C in 5°C increments	
Cover	Radiant Glass (On/Off slaved to heat timer)		Radiant Glass (On/Off slaved to heat timer)	
Timer Settings	1 min. to 10 hours		1 min. to 10 hours	
Dimensions W x H x D in (mm)	25 x 15 x 26 (620 x 380 x 660)		31 x 19 x 27 (770 x 470 x 690)	
Weight lbs (kg)	152 (60)		182 (83)	

Series	Savant SC210A and SPD250exp SpeedVac Ordering Information			
Model No.	SC210A-115	SC210A-230	SC250EXP-115	SC250EXP-230
Description	SC210A high-capacity concentrator		SC250EXP high-capacity concentrator for drug discovery, includes FPR-4A rotor, 1 set of UPC-1 carriers and 1 GF4000 glass jar	
Voltage	115 V/60 Hz	230 V/50 Hz	115 V/60 Hz	230 V/50 Hz
Bleeder Valve	Automatic		Automatic (Dual)	
Exhaust Port size	Standard		Oversized	
No. of Infrared Chamber Lamps	None		4	
Vacuum Control Ramp Rate	None		1 to 5	
Vacuum Level Control Setting	None		20 to 0.1 torr (26.6 to 0.1 mbar)	
Refrigerated Vapor Trap	Order Separately		Order Separately	
Heat Setting	3 presets – Ambient, med (43°C), high(65°C)		off, 45 to 80°C in 5°C increments	
Cover	Plexiglass		Controlled Heat Glass Cover (Off slaved to heat temp. and time)	
Timer Settings	None		1 min. to 10 hours	
Dimensions W x H x D in (mm)	18 x 25 x 18 (in), 460 x 635 x 460 (mm)		18 x 25 x 18 (in), 460 x 635 x 460 (mm)	
Weight lbs (kg)	102 (46)		127 (58)	

Thermo Scientific Plastic and Glass Labware

We offer a complete range tubes, microcentrifuge tubes, flasks, vials, bottles and microplates for all your SpeedVac applications. Our labware products are designed and manufactured for tough applications under rigorous laboratory conditions. For more information and to order, visit www.thermoscientific.com.





Thermo Scientific

Rotors, Rotor Carriers and Block Inserts

**Choose from two styles of rotors:
Traditional or our PRO Rotor System**

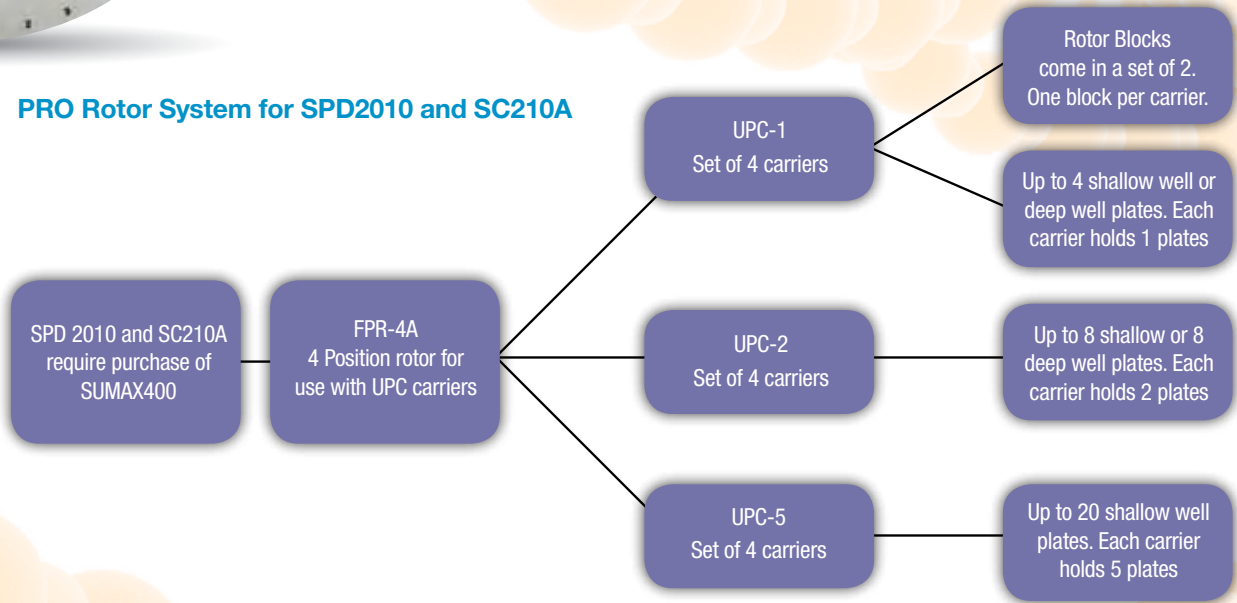
Traditional Rotors

Traditional rotors are easy to use circular rotors that have many different tube hole sizes to accommodate different sample sizes. These rotors require no additional accessories and fit directly into your concentrator. You can identify these rotors as "traditional" in the rotor ordering information table on the far right of pages 26 and 27.

PRO Rotor System

The alternative to traditional rotors is our PRO rotor system. This is a highly versatile rotor system consisting of a FPR-4A four position rotor along with mix and match carriers and blocks. This system can be used with SpeedVac models SC210A, the SPD2010 and the SPD250EXP. Use the flow charts below to configure your PRO rotor system. Blocks and carriers are listed in the rotor ordering information table as PR and can be identified as PRO Rotor in the rotor table on the far right. Unless otherwise indicated, all rotors, blocks and carriers are sold separately.

PRO Rotor System for SPD2010 and SC210A



Complete PRO-10 Rotor kit showing SUMAX400 magnetic assembly and UPC-1 carrier

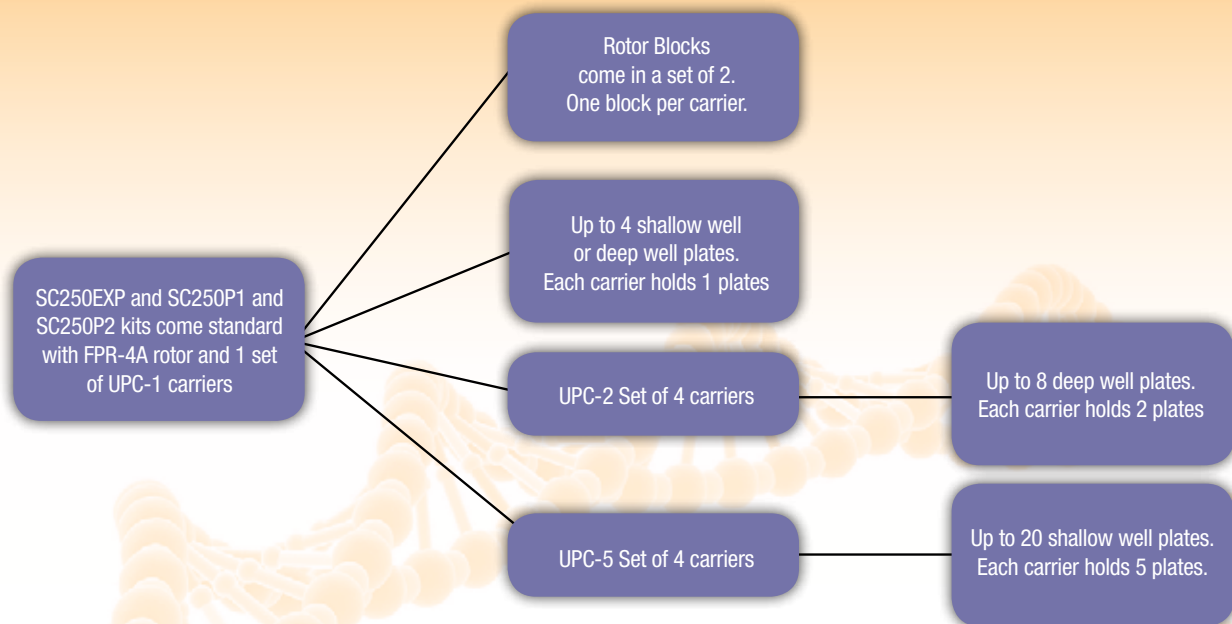


From L to R: UPC-1, UPC-2 and UPC-5 carriers

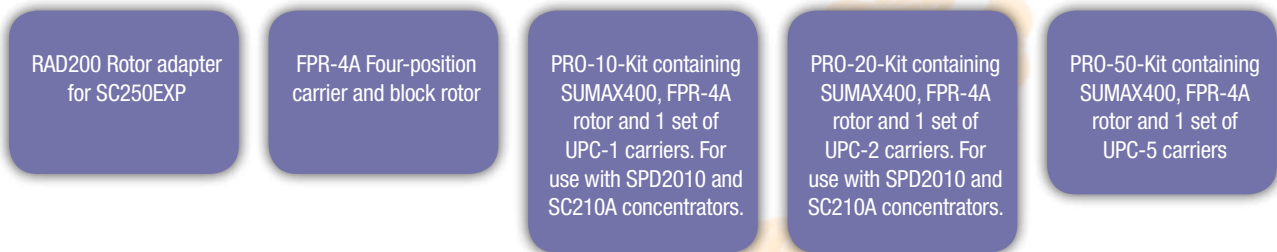


Blocks with glass tubes (sold separately)

PRO Rotor System for SC250EXP, SC250P1 and SC250P2



PRO Rotor System Components



FPR-4A rotor with one set of UPC-1 carriers



FPR-4A rotor with one set of UPC-2 carriers



FPR-4A rotor with one set of UPC-5 carriers

Thermo Scientific

Rotors, Rotor Carriers and Block Inserts



Model No. RH24-15



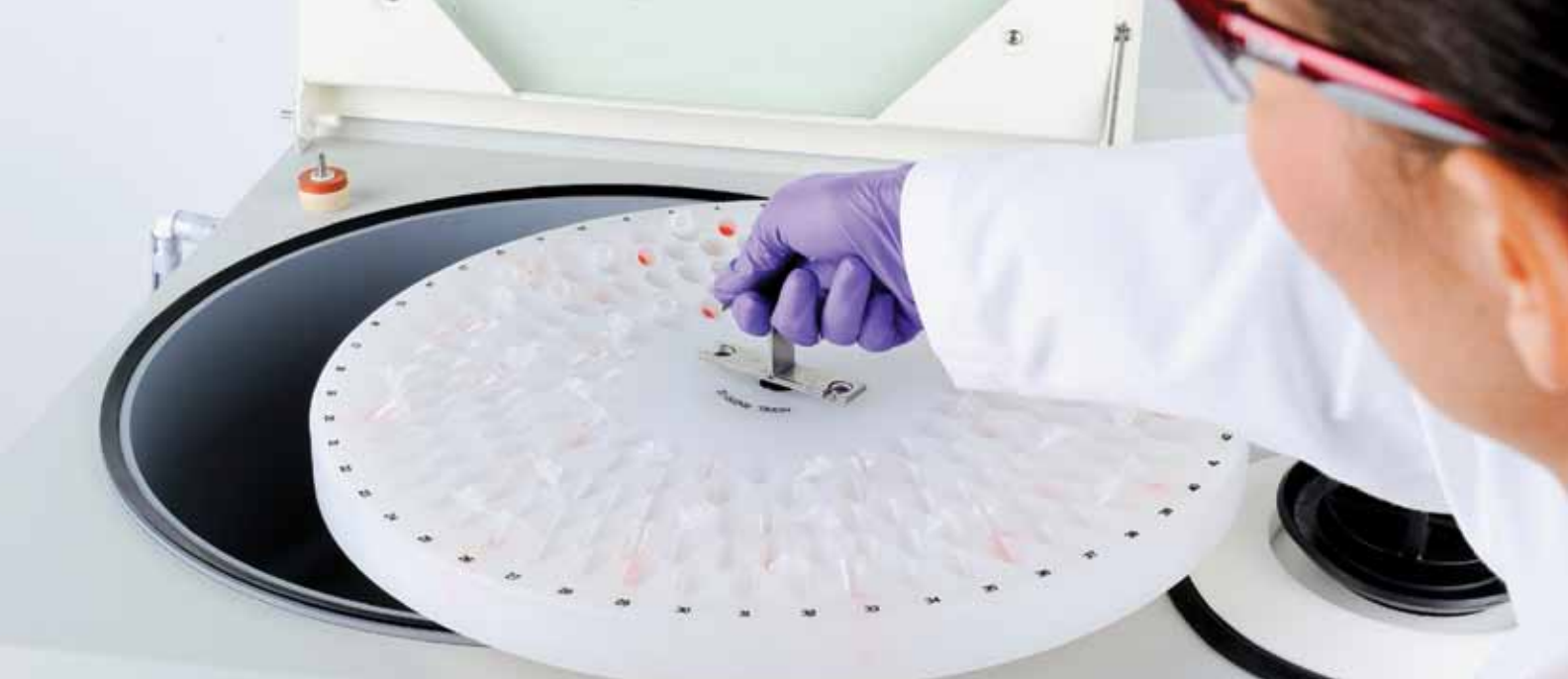
Model No. RH64-11



Model no. RH40-11

Rotors and Carriers Ordering Information

SpeedVac Models		DNA 120		ISS110		SPD111V		SC210A		SC250EXP		Rotor Part Number	Rotor System
		DNA 1200P	SPD1010	SPD121P	SPD131DDA	SPD2010	SPD2010	SPD2010	SPD2010				
Microtubes	No. of Tubes	Small Capacity	Medium Capacity	Medium Capacity	Large Capacity	Large Capacity	Large Capacity	Large Capacity	Large Capacity	Large Capacity	Large Capacity		
0.5ml	48	X										RD48	Traditional
0.5ml	72	X										RD72	Traditional
1.5ml	24	X										RD24	Traditional
1.5ml	36	X										RD36	Traditional
1.5ml	40		X	X								RH40-11	Traditional
1.5ml	50							PR*	PR*			RBA25-11-39	Set of 2 blocks for PRO
1.5ml	64		X	X								RH64-11	Traditional Rotor System
1.5ml	100							PR*	PR*			RBA25-11-39 (qty 2)	Set of 2 blocks for PRO
1.5ml	120		X	X								RH120-11	Traditional
1.5ml	200							X	X (requires RAD200)			RH200-12	Traditional
Glass and Plastic Tubes													
6 x 32 mm	252							PR*	PR*			RBA126-6-32	Set of 2 blocks for PRO
6 x 32 mm	504							PR*	PR*			RBA126-6-32 (qty 2)	Set of 2 blocks for PRO
6 x 50 mm	100		X	X								RH100-6	Traditional
8 x 29 mm	100		X	X								RH100-8	Traditional
12 x 75 mm	40		X	X								RH40-12	Traditional
12 x 75 mm	72		X	X								RH72-12	Traditional
12 x 75 mm	200							X	X (requires RAD200)			RH200-12	Traditional
13 x 100 mm	32		X	X								RH32-13	Traditional
13 x 100 mm	70							PR*	PR*			RBA35-13-100	Set of 2 blocks for PRO
13 x 100 mm	118							X	X (requires RAD200)			RH200-12	Traditional
13 x 100 mm	140							PR*	PR*			RBA35-13-100 (qty 2)	Set of 2 blocks for PRO
16 x 100 mm	48							PR*	PR*			RBA24-16-100	Set of 2 blocks for PRO
16 x 100 mm	98							PR*	PR*			RBA24-16-100 (qty 2)	Set of 2 blocks for PRO
16 x 125 mm	48							X	X (requires RAD200)			RH48-18-125	Traditional
16 x 125 mm	30							PR*	PR*			RBA15-16-125	Set of 2 blocks for PRO
17 x 60 mm	48							PR*	PR*			RBA24-17-60	Set of 2 blocks for PRO
17 x 60 mm	96							PR*	PR*			RBA24-17-60 (qty 2)	Set of 2 blocks for PRO
16 x 125 mm	60							PR*	PR*			RBA15-16-125 (qty 2)	Set of 2 blocks for PRO
17.5x102 mm, 15 ml Corex®	8		X	X								RH8-17.5	Traditional
18x100, 17x95, 16x100mm	8		X	X								RH8-18	Traditional
18 x 125 mm	48							X	X (requires RAD200)			RH48-18-125	Traditional
18 x 150 mm, 16 x 125 mm	32							X	X (requires RAD200)			RH32-18-150	Traditional
28 x 150 mm	12							X				RH12-29	Traditional



Rotors and Carriers Ordering Information Continued

SpeedVac Models	DNA 120 DNA 1200P	ISS110 SPD1010	SPD111V		SC210A SPD2010	SC250EXP	Rotor Part Number	Rotor System
			SPD121P	SPD131DDA				
Centrifuge Tubes	No. of Tubes	Small Capacity	Medium Capacity	Large Capacity				
15 ml conical	10		X	X	X		RH10-15	PR*
15 ml conical	30				X	X (requires RAD200)	RH60-17-100	Traditional
15 ml conical	52				X	X (requires RAD200)	RH52-15	Traditional
50 ml conical	6		X	X			RH6-50	Traditional
50 ml conical	12				X		RH12-29	Traditional
Flasks								
100 ml round bottom flask	2				X		RBA2-FLSK-100	Traditional
100 ml pear-shaped flask	4		X	X			RH4-100	Traditional
100 ml pear-shaped flask	8				X		RH8-200	Traditional
250 ml round bottom flask	1				X		RBA1-FLSK-250	Traditional
Vials								
12 x 32 mm	60		X	X			RH60-12-40	Traditional
1 dram (15 x 45 mm), 4 ml	24		X	X			RH24-15	Traditional
1 dram (15 x 45 mm), 4 ml	192				X	X (requires RAD200)	RH192-15	Traditional
12 x 40 mm	60		X	X			RH60-12-40	Traditional
20 x 47 mm	12		X	X			RH12-20	Traditional
20 x 60 mm	12		X	X			RH12-20	Traditional
18 x 52 mm mini-scintillation	24		X	X			RH24-18	Traditional
28 x 58 mm, 20 ml scintillation	24				PR*	PR*	RBA12-28-58	Set of 2 blocks for PRO
28 x 58 mm, 20 ml scintillation	48				PR*	PR*	RBA12-28-58 (qty 2)**	Set of 2 blocks for PRO
28 x 60 mm scintillation	12		X	X			RH12-28	Traditional
28 x 60 mm scintillation	50				X	X (requires RAD200)	RH50-28-60	Traditional
19 x 65 mm flat bottom	48				PR*	PR*	RBA24-19-65	Set of 2 blocks for PRO
19 x 65 mm flat bottom	98				PR*	PR*	RBA24-19-65 (qty 2)**	Set of 2 blocks for PRO
Microwell Plates								
Shallow well plates	2	X					RD2MP	Traditional
Shallow well plates	12				X		MPTR12-210	Traditional
Shallow well plates	4				PR*	PR*	UPC-1	Set of 4 carriers for PRO
Shallow well plates	6			X			RHSW6MP	Traditional
Shallow well plates	2		X	X			RH2MP	Traditional
Shallow well plates	8				PR*	PR*	UPC-2	Set of 4 carriers for PRO
Shallow well plates	20				PR*	PR*	UPC-5	Set of 4 carriers for PRO
Deep well plates	2			X			RHDW2MP	Traditional
Deep well plates	4				PR*	PR*	UPC-1	Set of 4 carriers for PRO
Deep well plates	8				PR*	PR*	UPC-2	Set of 4 carriers for PRO
Deep well plates	8				X		MPTR8-210	Traditional

* For use with the PRO rotor system

** To achieve the tube capacity listed, please order quantity 2 of the rotor blocks

Thermo Scientific

Savant Refrigerated Vapor Traps

Refrigerated vapor traps are available in three temperature ranges: **-105°C, -50°C and -5°C**

Product Features

- Available in three temperature ranges -50°C, -105°C and -5°C
- CFC and HCFC free refrigerants
- -5°C specifically designed for trapping high-boiling solvents such as DMSO and DMF
- -105°C used for trapping low-boiling solvents such as Chloroform or Methylene Chloride
- Rapid cooling rate
- Includes one model GCF400 flask and model FC400 flask cap

Note: Additional glass condensation flask (model no. GCF400) is recommended for easy trap maintenance. CryoCool (model no. SCC1) and tubing kits are ordered separately.



Refrigerated Vapor Trap (Model No. RVT5105)

Refrigerated Vapor Trap Ordering Information

Model No.	Description	Voltage	Capacity	Temperature	Shipping Dimensions W x H x D in (mm)	Shipping Weight lbs (kg)
RVT400-115	Refrigerated vapor trap	115 V/50/60 Hz	4 liters	-50°C	14 x 12 x 24 (350 x 310 x 600)	55 (25)
RVT400-230	Refrigerated vapor trap	230 V/50/60 Hz	4 liters	-50°C	14 x 12 x 24 (350 x 310 x 600)	55 (25)
RVT405DDA-115	Refrigerated vapor trap	115 V/50/60 Hz	4 liters	-5°C	14 x 12 x 24 (350 x 310 x 600)	55 (25)
RVT405DDA-230	Refrigerated vapor trap	230 V/50/60 Hz	4 liters	-5°C	14 x 12 x 24 (350 x 310 x 600)	55 (25)
RVT5105-115	Ultra-low temperature refrigerated vapor trap	115 V/60 Hz	4 liters	-105°C	24.1 x 24 x 18.3 (612 x 610 x 465)	150 (68)
RVT5105-230	Ultra-low temperature refrigerated vapor trap	230 V/60 Hz	4 liters	-105°C	24.1 x 24 x 18.3 (612 x 610 x 465)	150 (68)
GFC400	Glass condensation flask	-	-	-	-	-
FC400	Flask cap	-	-	-	-	-

Thermo Scientific Savant Universal Speedvac Vacuum System

The Universal Vacuum System is a combined oil-free vacuum source and refrigerated vapor trap, in a single integrated unit. The easy-to-use, wide mouth glass condensation flask allows safe handling of recovery solvents. This unit can be connected to any of the concentrators to provide a complete Thermo Scientific Savant SpeedVac system.



Universal Vacuum System (Model No. UVS400SPD)

Savant UVS400

Product Features

- Low maintenance, oil-free and corrosion resistant system
- Wide mouth glass condensation flask with self-sealing cover
- Small foot print
- Single stage refrigeration system
- Efficient operation with all SpeedVac concentrators, gel dryers and other vacuum-dependant equipment
- Optional post trap (model no. ANT100) may be added to neutralize ammonia or acid
- Chemical trap (model no. DTK120R) may be added to absorb volatile radioactivity and residual vapors
- Max. vacuum <10 torr (13.3 mbar)
- Oil-free ETFE diaphragm pump
- 36 liters/minute displacement on 60 Hz; 30 liters/minute on 50 Hz models

Savant US800DDA

Product Features (Drug Discovery Models)

All the standard features as well as:

- 3-stage high efficiency oil free pump
- Max Vacuum <0.6 torr
- 36 liter/minute on 60 Hz; 20 liters/minute on 50 Hz models
- PTFE tubing and vapor path
- Post trap ANT100 included
- Order ANS121/4 ammonia neutralizing solution separately
- VaporNet[®] solvent recovery enhancement

Note: CryoCool heat transfer fluid (model no. SCC1) must be ordered for use with all refrigerated cold traps, and the universal vacuum source. Please order separately.

Universal Vacuum System Ordering Information

Model No.	Description	For Use With	Voltage	Capacity	Temperature	Shipping Dimensions W x H x D in (mm)	Shipping Weight lbs (kg)
UVS400-115	Universal vacuum system with refrigerated vapor trap	SPD111V and SC210A	115 V/60 Hz	4 liters	-55°C	14 x 18 x 24 (250 x 450 x 600)	113 (51)
UVS400A-230	Universal vacuum system with refrigerated vapor trap	SPD111V and SC210A	230 V/50 Hz	4 liters	-55°C	14 x 18 x 24 (250 x 450 x 600)	113 (51)
UVS400SPD-115	Universal vacuum system with refrigerated vapor trap	SPD121P, SPD131DDA and SC250EXP	115 V/60 Hz	4 liters	-55°C	14 x 18 x 24 (250 x 450 x 600)	113 (51)
UVS400SPD-230	Universal vacuum system with refrigerated vapor trap	SPD121P, SPD131DDA and SC250EXP	230 V/50 Hz	4 liters	-55°C	14 x 18 x 24 (250 x 450 x 600)	113 (51)
UVS800DDA-115	Universal vacuum system for drug discovery	SPD111V, SC210A SPD121P, SPD131DDA and SC250EXP	115 V/60 Hz	4 liters	-50°C	14 x 18 x 24 (250 x 450 x 600)	126 (57)
UVS800DDA-230	Universal vacuum system for drug discovery	SPD111V, SC210A SPD121P, SPD131DDA and SC250EXP	230 V/50 Hz	4 liters	-50°C	14 x 18 x 24 (250 x 450 x 600)	126 (57)

Thermo Scientific Pumps

We offer both oil-free and deep vacuum pumps depending on your SpeedVac application.



Oil-Free Vacuum Pumps

Product Features

- ETFE coated heads and ETFE/PFA diaphragms
- OFP400 recommended for evaporating samples in acidic environments such as HCl, TFA, acetic or formic acid, aggressive/volatile organics (methylene chloride, acetone, hexane) and strong bases (ammonium hydroxide)
- Quiet, efficient operation
- Attains vacuum level of below 1 torr
- Suitable for use with the refrigerated vapor trap models RVT5105 or RVT400
- Oil-free pumps eliminate maintenance associated with oil pumps

Deep Vacuum Oil Pumps

Product Features

- Four models to choose from to suit your application
- Available for use with acids or DMSO/DMF
- Low noise level, 48 dBA
- Three-position gas ballast control
- Standard oil drain kit simplifies oil change
- Two separate oil inlet ports
- Thermal overload switches with automatic reset
- Recommended for applications requiring high vacuum

Oil-Free Low Vacuum Pump

Product Features

- Hermetically sealed pump provides a clean and dry vacuum to prevent cross contamination
- Oil free pump eliminates maintenance associated with oil pumps
- Higher displacement than standard oil free pumps

Oil-Free Vacuum Pump Ordering Information

Model No.	Description	Voltage	Displacement	Max. Vacuum	Shipping Dimensions H x W x D in (mm)	Shipping Weight lbs (kg)
OFP400-115	ETFE/PFA 4-headed diaphragm vacuum pump	115V 50/60 Hz	30 liters/minute at 50 Hz	0.6 torr (0.75 mbar)	18 x 8 x 15 (460 x 210 x 390)	49.5 (22.5)
OFP400-230	ETFE/PFA 4-headed vacuum pump	230V 50/60 Hz	36 liters/minute at 60 Hz	0.6 torr (0.75 mbar)	18 x 8 x 15 (460 x 210 x 390)	49.5 (22.5)
OFP5C-115	Scroll Pump	115/60 Hz	96.7 liters/minute at 60 Hz	0.5 torr (0.06 x 10 ² mbar)	11.8 x 9.1 x 17.3 (300 x 230 x 440)	23 (51)
OFP5C-230	Scroll Pump	230/50 Hz	96.7 liters/minute at 60 Hz	0.8 torr (0.07 x 10 ² mbar)	11.8 x 9.1 x 17.3 (300 x 230 x 440)	23 (51)

Deep Vacuum Pump Ordering Information

Model No.	Description	Voltage	Displacement	Max. Vacuum	Shipping Dimensions H x W x D in (mm)	Shipping Weight lbs (kg)
VLP120-115	Vacuum pump, includes Oil Mist Eliminator, (OME190), 2 filters and line cord	115V 50/60 Hz	97 liters/minute at 50 Hz	1.5 mtorr/1.95 x 10 ³ mbar	9 x 6 x 17 (230 x 160 x 420)	48 (22)
VLP120-230	Vacuum pump, includes Oil Mist Eliminator, (OME190), 2 filters and line cord	230V 50/60 Hz	116 liters/minute at 60 Hz	1.5 mtorr/1.95 x 10 ³ mbar	9 x 6 x 17 (230 x 160 x 420)	48 (22)
VLP200-115	Vacuum pump, includes Oil Mist Eliminator, (OME190), 2 filters and line cord	115V 50/60 Hz	162 liters/minute at 50 Hz	1.5 mtorr/1.95 x 10 ³ mbar	11 x 6 x 19 (260 x 160 x 470)	57 (26)
VLP200-230	Vacuum pump, includes Oil Mist Eliminator, (OME190), 2 filters and line cord	230V 50/60 Hz	195 liters/minute at 60 Hz	1.5 mtorr/1.95 x 10 ³ mbar	11 x 6 x 19 (260 x 160 x 470)	57 (26)
VLP285-115	Vacuum pump, includes Oil Mist Eliminator, (OME190), 2 filters and line cord	115V 50/60 Hz	237 liters/minute at 50 Hz	1.5 mtorr/1.95 x 10 ³ mbar	11 x 6 x 19 (260 x 160 x 470)	58 (26)
VLP285-230	Vacuum pump, includes Oil Mist Eliminator, (OME190), 2 filters and line cord	230V 50/60 Hz	283 liters/minute at 60 Hz	1.5 mtorr/1.95 x 10 ³ mbar	11 x 6 x 19 (260 x 160 x 470)	58 (26)
VLP80-115	Vacuum pump, includes Oil Mist Eliminator, (OME190), 2 filters and line cord	115V 50/60 Hz	62 liters/minute at 50 Hz	1.5 mtorr/1.95 x 10 ³ mbar	9 x 6 x 17 (230 x 160 x 420)	48 (22)
VLP80-230	Vacuum pump, includes Oil Mist Eliminator, (OME190), 2 filters and line cord	230V 50/60 Hz	76 liters/minute at 60 Hz	1.5 mtorr/1.95 x 10 ³ mbar	9 x 6 x 17 (230 x 160 x 420)	48 (22)
VLP80DDA-115	High-vacuum pump with VPOF110, includes Oil Mist Eliminator (OME190), 2 filters, line cord	115V 50/60 Hz	62 liters/minute at 50 Hz	1.5 mtorr/1.95 x 10 ³ mbar	9 x 6 x 17 (230 x 160 x 420)	48 (22)
VLP80DDA-230	High-vacuum pump with VPOF110, includes Oil Mist Eliminator (OME190), 2 filters, line cord	230V 50/60 Hz	76 liters/minute at 60 Hz	1.5 mtorr/1.95 x 10 ³ mbar	9 x 6 x 17 (230 x 160 x 420)	48 (22)

Thermo Scientific Chemical Trap Kits

Chemical traps are highly recommended to absorb residual volatile vapors that may bypass the primary cold trap. Replaceable cartridges install easily inside the trap for quick changes once the trap become saturated. Our dry chemical traps (SCT120) are installed between the cold trap and the oil-filled high-vacuum pump to prevent pump damage. Our solution-based traps (ANT100) and dry chemical traps are used on the exhaust of oil-free pumps to reduce emissions.



Chemical Trap Kit Ordering Information

Model No.	Description
DTK120R	Chemical trap kit, for absorbing volatile radioactives, includes activated carbon cartridge and all fittings
DC120R	Disposable chemical cartridge, for volatile radioactivity (use with DTK120R)
DC120A	Disposable cartridge with color indicator for trapping acids and residual water vapor
DC120R/4	Disposable chemical cartridge, for volatile radioactivity, package of 4 (use with DTK120R)
ANS121/4	Ammonia neutralizing solution, package of 4 bottles (use with ANT100 post-trap)
SCT120	Chemical trap



Disposable cartridge for trapping acids and residual water vapor (Model No. DC120A)

Thermo Scientific Tubing Kits

When ordering a refrigerated vapor trap or a universal vacuum system, you will require tubing depending on which concentrator bowl specified. Our tubing kits can be used with all Thermo Scientific pumps and cold traps.



Tubing Kits Ordering Information

Model No.	Description	SPD111V	SPD121P	SPD131DDA	SC210A	SC250EXP
UTP-TYG	Universal tubing pack - TYGON	YES	–	–	YES	–
UTP-TEF 0.5	PTFE tubing pack	–	YES	–	–	–
UTP-TEF 0.75	PTFE tubing pack	–	–	YES	–	–
TFK100	Tubing and flask kit to be used with UVS400, UVS400SPD, UVS800DDA universal vacuum sources	YES	YES	YES	–	–
TFK200	Tubing and flask kit to be used with UVS400, UVS400SPD, UVS800DDA universal vacuum sources	–	–	–	YES	YES
VTK80	Vacuum tubing kit to be used stand along with cold traps and stand alone with vacuum pumps	–	YES	YES	YES	YES

Thermo Scientific Accessories

Accessories Ordering Information

Model No.	Description
CC120/DX	Deluxe convenience cart
SCC1	CryoCool heat transfer fluid, 1 liter
SCC5	CryoCool heat transfer fluid, 5 liters
SP01-B	Vacuum pump lubricating oil, 1 liter
SP01	Vacuum pump lubricating oil, 1 liter, case of 12
SP01-SB	Vacuum pump lubricating oil, synthetic, 1 liter
SP01-S	Vacuum pump lubricating oil, synthetic, 1 liter, case of 12
SFF1-B	Vacuum pump flushing fluid, 1 liter
SFF1	Vacuum pump flushing fluid, 1 liter, case of 12
VPOF110	Vacuum pump oil filter for models VLP80, VLP120, VLP200 and VLP285
MF190	Mist filter replacement cartridge for OME190 oil mist eliminator



Model No. CC120/DX