



Thermo Scientific Savant DNA SpeedVac® Concentrators

Targeted solutions for
DNA and RNA applications



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Targeted Solutions for DNA and RNA Applications

DNA research continues to pave the way to many medical and scientific discoveries. When working with fragile DNA and RNA samples, you need to be confident your samples are protected and your protocols run efficiently.

Thermo Scientific Savant DNA SpeedVac concentrators are designed specifically for DNA and RNA applications. These compact, fully-integrated systems support the rapid and efficient concentration and drying of DNA/RNA samples, nucleic acids, PCR preps and synthetic oligos.

You can depend on our DNA concentrators to provide sample safety and reproducibility for your key protocols:

- Drying down DNA/RNA precipitates in microplates or microtubes
- Drying down PCR samples in water/ethanol or isopropanol
- Drying down oligonucleotides

With three models to choose from, our Savant DNA SpeedVac concentrators can easily support your low-volume sample preparation needs as well as your higher-volume processing requirements.

The Savant ISS110 DNA SpeedVac concentrator is ideal for higher-volume applications, offering an integrated cold trap for rapid evaporation and a sample capacity of up to 120 1.5 – 2.0 mL tubes.



For more than forty-five years, our Savant SpeedVac® name has been recognized by scientific researchers and laboratory personnel around the world for delivering value, reliability, and performance in centrifugal vacuum concentration.



◀ All three Savant DNA SpeedVac concentrators can be equipped with a microplate rotor to support two shallow-well microplates.

Convenience, Safety and Flexibility



Consistent Performance

Equipment in a typical research lab must be designed to support multiple users, numerous protocols, and many runs per day. In this demanding environment, consistent performance is critical. Our Savant DNA SpeedVac concentrators are designed to ensure consistent drying times and reproducible results.

Simplicity

Operating our Savant DNA SpeedVac concentrators is easy. A single program is all you need to support your DNA/RNA applications. User-friendly operator controls make each unit simple to program: simply set temperature and time, and you're ready to start your run.

Sample Protection

DNA/RNA samples require careful handling during the denaturing process. Our DNA concentrators give you the option of drying at ambient temperatures or very low heat to ensure maximum sample protection.

In addition, concerns with cross-contamination from bumping are alleviated. All units are equipped with an oil-free diaphragm pump that ensures a gentle transition from atmosphere to the ultimate vacuum setting, thereby eliminating sample disturbance from bumping.

Compact, Easy-to-Use Design

In a busy lab, bench space is often at a premium. Our DNA concentrators are the smallest integrated benchtop units available. The Savant DNA120 SpeedVac concentrator is our smallest unit – only 29 cm (11 inches) across – saving you precious bench space.

All three Savant DNA SpeedVac units are integrated systems, offering the convenience of “plug-and-play” installation and ease of operation. Each unit includes an oil-free TEFLON® diaphragm vacuum pump, making our concentrators virtually maintenance free. The latched lid on all units ensures user safety during operation.

Safety Assurance

Our Savant DNA SpeedVac concentrators minimize concerns associated with handling hazardous fumes and chemicals. All units can concentrate radioactive samples with the optional radioactive chemical trap kit (cat. no. DTK120R).

The Savant DNA1200P SpeedVac concentrator allows you to safely concentrate oligonucleotides. The external post-trap neutralizes ammonium hydroxide vapors, while the chemically-resistant glass lid keeps solvents contained.

Proven Reliability

More than forty-five years of concentrator experience stands behind our Savant SpeedVac family of products. Our extensive product history and knowledgeable staff allow us to provide you with high-quality service and support over the long term.

We continue to partner with customers to develop innovative, cost-effective vacuum concentration solutions to support your scientific challenges. Combined with our world-class service and support, we are committed to ensuring your complete satisfaction with our products.



- ◀ The external post-trap on the Savant DNA1200P SpeedVac concentrator neutralizes ammonium hydroxide vapors. A chemically-resistant glass lid keeps solvents contained.



- ◀ The high-capacity RH120-11 rotor, available for the Savant ISS110 DNA SpeedVac concentrator, accommodates up to 120 1.5 - 2.0 mL microcentrifuge tubes, making it ideal for high-volume runs.

Thermo Scientific Savant DNA SpeedVac Concentrators Specifications and Ordering Information



Technical Specifications	ISS110	DNA120/120OP
Physical Properties		
Dimensions (W x D x H) cm (inch)	62 x 66 x 38 (25 x 26 x 15)	29 x 63 x 33 (11.5 x 25 x 13)
Additional Required Ventilation Space	8 cm (3 in) on all sides	8 cm (3 in) on all sides
Shipping Dimensions – Boxed (W x D x H) cm (inch)	83 x 94 x 79 (33 x 37 x 31)	66 x 81 x 61 (20 x 32 x 19)
Product Weight	61 kg (135 lbs)	36 kg (80 lbs)
Shipping Weight (boxed)	79 kg (175 lbs)	45 kg (100 lbs)
Chamber Temperature	Ambient, 43°C, or 65°C with over-temperature safety shut-off	Ambient, 43°C, or 65°C with over-temperature safety shut-off
Timer Range (Heat and Run)		5 minutes to 9 hours and 55 minutes, hold
Materials of Construction		
Chamber	Teflon-coated aluminum	Teflon-coated aluminum
Chamber Seal	Silicone rubber	Silicone rubber
Fittings	Polypropylene	Polypropylene
Pump Heads	2-headed pump with ETFE diaphragms	2-headed pump with ETFE diaphragms
Cover	Acrylic lid, includes safety interlock	DNA120 – Acrylic lid, includes safety interlock DNA120OP – Glass lid, includes safety interlock
Operational Requirements – System		
Voltage Input/Frequency/Power	ISS110-115 : 115 VAC / 60 Hz/ 10 amps ISS110-230 : 230 VAC / 50 Hz/ 5 amps	DNA120/120OP-115: 115 VAC / 60 Hz/ 10 amps DNA120/120OP-230: 230 VAC / 50 Hz/ 5 amps
Power Consumption	1150 Watts	1150 Watts
Heat Output	3925 Btu/h	3925 Btu/h
Rotor Spin Speed	50 Hz – 1300 RPM (typical, no rotor) 60 Hz – 1600 RPM (typical, no rotor)	50 Hz – 1300 RPM (typical, no rotor) 60 Hz – 1600 RPM (typical, no rotor)
Motor	Maintenance-free induction motor	Maintenance-free induction motor
Plug Configuration		
120 VAC	NEMA 5-15P with an IEC 60320 C13 connector	NEMA 5-15P with an IEC 60320 C13 connector
230 VAC	CEE 7/7 with an IEC 60320 C13 connector	CEE 7/7 with an IEC 60320 C13 connector
Power Inlet Receptacle	IEC 60320 C14	IEC 60320 C14
Performance Properties		
Concentrator Volume	0.4 – 100 mL	0.5 – 2.0 mL
Concentrator Capacity	4 – 120 tubes 2 shallow-well microplates	36 – 72 tubes 2 shallow-well microplates
Vacuum Pump	ETFE oil-free diaphragm pump	ETFE oil-free diaphragm pump
Capacity	36 L/min at 60 Hz 30 L/min at 50 Hz	36 L/min at 60 Hz 30 L/min at 50 Hz
Vacuum Control		
Ultimate Vacuum Level	<10 Torr (13 mbar, 1.3 kPa)	<10 Torr (13 mbar, 1.3 kPa)
Noise	<65 dBA	<65 dBA
Display		Real-time LED display of time
Cold Trap		
Capacity	4.0 L	
Operating Temperature	-50°C	
Refrigerant	115V – 403B 230V – 404A	
Chemical Compatibility	Aqueous and alcohol solvents	DNA120 – aqueous and alcohol solvents DNA120OP – aqueous and alcohol solvents, ammonium hydroxide
Certification – CE, CSA		
	CE, Low Voltage Directive 73/23/EEC, EMC Directive 89/336/EEC, CE Marking Directive 93/68/EEC EN50082 (Generic Immunity Standard), EN55011 Class A (Industrial, scientific and medical (ISM) radio-frequency equipment – Radio disturbance characteristics – Limits and methods of measurement)	
Registration		
	ISO 9001-2000. Registered by NSAI (National Standard Authority of Ireland). Certificate number 19.1082.	

Ordering Information

Cat. no.	Description
ISS110-115	Savant ISS110 DNA SpeedVac system, 115 VAC/60 Hz. Includes one RH64-11 rotor and two GCF400 glass condensation flasks.
ISS110-230	Savant ISS110 DNA SpeedVac system, 230 VAC/50 Hz. Includes one RH64-11 rotor and two GCF400 glass condensation flasks.
DNA120-115	Savant DNA120 SpeedVac system, 115 VAC/60 Hz. Includes one RD36 rotor.
DNA120-230	Savant DNA120 SpeedVac system, 230 VAC/50 Hz. Includes one RD36 rotor.
DNA120OP-115	Savant DNA120OP SpeedVac system for oligos, 115 VAC/60 Hz. Includes one RD36 rotor, one ANT100 post-trap assembly, and four ANS121 bottles of ammonia neutralizing solution.
DNA120OP-230	Savant DNA120OP SpeedVac system for oligos, 230 VAC/50 Hz. CE & CSA approved. Includes one RD36 rotor, one ANT100 post-trap assembly, and four ANS121 bottles of ammonia neutralizing solution.

3 models to choose from to match your application

1

External post trap neutralizes ammonium hydroxide vapors.

TEFLON® coated chamber provides excellent chemical resistance and easy cleaning.

2

A built-in 4-liter cold trap accelerates evaporation to increase productivity.

3

Dual digital timers enable independent control of heat and run times (DNA120/ DNA120OP only).

Built-in, oil-free pump provides maintenance-free operation.



Oligos

Our Savant DNA120OP SpeedVac concentrator, for use with oligos, includes a chemically resistant glass cover and external post trap for drying down synthetic oligos with ammonium hydroxide preparations.

High Volume

Our high-capacity Savant ISS110 DNA SpeedVac concentrator – with a built-in 4-liter cold trap – is ideal for processing large batches of DNA/RNA samples. To accelerate evaporation, you can pre-heat the chamber – then turn the heater off prior to starting the run.

Small Volume

Our Savant DNA120 SpeedVac concentrator offers rapid and efficient drying of small-volume DNA/RNA samples. The unit offers three drying rates (ambient, ~43°C, ~65°C) and includes dual digital timers for independent control of heat and run times.

Thermo Scientific Savant DNA SpeedVac Concentrators Rotors and Accessories

Rotors for Savant DNA120/1200P SpeedVac Concentrators

	Cat. no.	Description	No. of Tubes
Microcentrifuge Tubes	RD24	1.5 - 2.0 mL	24
	RD36†		36
PCR Tubes	RD48	0.5 mL (8 x 29 mm)	48
	RD72	0.5 mL (8 x 29 mm)	72
Microplate	RD2MP	Multiwell shallow-well	2

†Standard rotor with DNA120/1200P

Rotors for Savant ISS110 DNA SpeedVac Concentrator

Microcentrifuge Tubes	RH40-11	1.5 - 2.0 mL	40
	RH64-11††	1.5 - 2.0 mL	64
	RH120-11	1.5 - 2.0 mL	120
PCR Tubes	RH100-8	0.5 mL (8 x 29 mm)	100
Glass and Plastic Tubes	RH100-6	0.4 mL (6 x 50 mm)	100
	RH40-6	0.4 mL (6 x 50 mm)	40
	RH20-12	12 x 75 mm	20
	RH40-12	1.5 - 2.0 mL (12 x 75 mm)	40
	RH32-13	13 x 100 mm	32
	RH72-12	12 x 75 mm	72
	RH8-17.5	17.5 x 102 mm, 15 mL Corex® tubes	8
	RH8-18	18 x 100 mm, 17 x 95 mm, 16 x 100 mm	8
	RH4-18-150	18 x 150 mm	4
Centrifuge Tubes	RH6-25	24 x 105 mm, 30 mL Kimble-Kontes tubes	6
	RH10-15	15 mL conical (16 x 120 mm)	10
Flasks	RH6-50	50 mL conical (28 x 115 mm)	6
	RH8-50	50 mL pear-shaped flask	8
Vials	RH4-100	100 mL pear-shaped flask	4
	RH60-12-40	12 x 32-40 mm	60
Microplate	RH12-20	20 x 47 mm vials	12
	RH24-15	1 dram vials (15 x 45 mm), 4 mL	24
	RH24-18	18 x 52 mm mini-scintillation vials	24
	RH12-28	28 x 60 mm scintillation vials	12
Microplate	RH2MP	Multiwell shallow-well	2

††Standard rotor with ISS110

Accessories

All Units	SCT120	Chemical trap (order cartridges separately)
	DTK120R	Chemical trap kit for radioactivity (compatible with all Thermo vacuum concentrator products)
	DC120	Disposable cartridge for neutralizing acid
	DC120A	Disposable cartridge for trapping volatile radioactivity
	NSA300TF	Neutralizing solution for acid
	ANC100	Acid neutralizing compound for acetic acid
	CC120/DX	Deluxe convenience cart for SpeedVac systems
	CC160/DX	Convenience cart for large SpeedVac systems
	ANT100	Oligo Prep – Post trap assembly (comes with DNA1200P)
	ANS121	Oligo Prep – Ammonia neutralizing solution
	ISS110 Only	GCF400
FC400		Flask cover for GCF400
SCC1		CryoCool® heat transfer fluid (1 liter)



RD72



RH20-12



RH6-25



RH72-12



RH100-8



RH2MP

We offer a complete range of vacuum concentration and freeze drying solutions. Contact your account representative for information about our higher-capacity systems for use with aggressive solvents and strong acids.