

### Speed Vac Concentration

- simple straight forward,  
trouble-free, macro/micro and  
fast speed vacuum concentration  
at your finger tips with freeze  
drying capability



# ScanSpeed MaxiVac Alpha

Your solution for fast macro sample vacuum concentration

## ScanSpeed MaxiVac Alpha

Is a compact, fast and environmentally friendly vacuum concentrator, ideal for concentrating large or small sample volumes from 200x1.5/2 mL Eppendorf tubes to 15 or 50 mL tubes and also 4x250 mL bottles...the choice is yours!



The unique, seamless condenser of the Cold Trap -110 °C ensures faster and reproducible drying whilst protecting both the vacuum pump and the laboratory environment.

### Easy to use Automatic system

Includes timer, stop/start functions with full programming and storage of all operating parameters, i.e. Vacuum levels, chamber temperature and run times.

ScanSpeed MaxiVac Alpha system offers the versatility of fast vacuum concentrating or drying biological or non-biological materials in a diverse range of solvents and the flexibility of handling macro or micro sample volumes.

Complete with MP2.2 diaphragm membrane pump with lowest vacuum of 7 mBar and integrated trolley/rack with castors.

Simple, Straight forward, trouble free Speed Vacuum Concentration on...at your finger tips.



## As an option we offer

Teflon coating to both the ScanSpeed MaxiVac and Cold Trap for longevity and protection from corrosion, especially when working with aggressive acids and solvents i.e. 6N HCl, TFA, DMSO, and TSO as used in peptide precipitation.

# ScanSpeed MaxiVac Beta

Your multi purpose solution for low temperature macro sample vacuum concentration and freeze drying

## ScanSpeed MaxiVac Beta

This system offers the versatility of vacuum concentration or drying of biological or no-biological samples in a diverse range of solvents.

The ScanSpeed MaxiVac Beta has the flexibility of handling macro and micro volumes and coupled with freeze drying capabilities.

ScanSpeed MaxiVac Beta system offers the versatility of low temperature vacuum concentrating or drying biological or non-biological materials in a diverse range of solvents and the flexibility of handling macro or micro sample volumes together with allowing multi purpose freeze dryer.

The unique, seamless condenser of the Cold Trap -110 °C ensures faster and reproducible drying whilst protecting both the vacuum pump and the laboratory environment. Includes Freeze Drying manifold with 4 x 3/4" rubber valves for connection of flasks etc. This can be extended to incorporate up to 8 x 3/4" valves on a single unit.



ScanSpeed MaxiVac Beta is a compact , fast, low temperature and environmentally friendly vacuum concentrator, ideal for concentration of large sample volumes from 200x1.5/2.0 mL Eppendorf tubes, Microwell plates, 15 to 50 mL tubes and also 4x250 mL bottles...you choose.

The unique, seamless condenser of the Cold Trap -110 °C ensures faster and reproducible drying whilst protecting both the vacuum pump and the laboratory environment.

### Easy to use Automatic system

Includes timer, stop/start functions with full programming and storage of all operating parameters, i.e. Vacuum levels, chamber temperature and run times.

Complete with oil based vacuum pump RZ2.5 with oil mist eliminator, lowest vacuum of 0.01 mBar allowing lowest product temperature and enabling Freeze Drying to be performed.

Simple, Straight forward, trouble free Speed Vacuum Concentration and Freeze Drying at your finger tips.

### As an option we offer

Teflon coating to both the ScanSpeed MaxiVac and Cold Trap for longevity and protection from corrosion, especially when working with aggressive acids and solvents i.e. 6N HCl, TFA, DMSO, and TSO as used in peptide precipitation.

Pressure Regulation is also an option we offer to enable improvements in evaporation rates and avoidance of over "cooking" volatile samples. Please request further information.



Rotor for 1.5-2.0 mL Eppendorf tubes.



Specifications	MaxiVac Alpha	MaxiVac Beta
Cat. No	7.008.500.002* 7.008.500.003**	7.008.500.012* 7.008.500.013**
Auto/start stop	Yes	Yes
Timer function	Yes	Yes
Pressure Readout mBar	0.001 – 1000	0.001 – 1000
Rpm Adjustable	0-2000	0-2000
Dimension mm WxDxH	380 x 450 x 1000	380 x 450 x 1000
Heat Temp. Range °C	+ 5 to + 80	+ 5 to + 80
Pump down capacity L/min	37	37
Pump capacity mBar	7	0.001
Power consumption W	2500	2500
Voltage V/Hz	*230/50-60 or **110/60	230/50-60 or **110/50

Cat. no.	Type	Description, MaxiVac
7.001.300.002	Teflon	Teflon coating of CoolSafe when drying aggressive acids
7.008.100.002	Tefloncoating of ScanSpeed	Teflon coating of CoolSafe when drying aggressive acids
7.008.100.003	Adapter for old Heto rotors	Takes all HETO rotors
7.008.100.004	Adapters for old Savant rotors	Takes most Savant rotors
7.001.300.192	Upgrade to Pro	Upgrade of Cooling Trap from Basic to Pro-version of CS Pro with Pressure readout to 0.001 mBar
7.001.300.092	Pressure-Reg	Regulation of Pressure requires CS Pro versions
7.001.300.001	Deice	Electrical Deice function for fast de-icing of the condenser requires CS Pro versions
7.001.000.063	M4Ext.	Extra manifold incl. 4 Rubber Valves 3/4" for freeze-drying in flasks (May be prolonged with M4Ext)



CoolSafe 110-4 Pro with pressure readout and optional Pressure regulation facilities.



A wide variety of rotors suits your samples and applications.

## Rotors

A wide range of rotors are available that accommodate most sizes of tubes. Please consult the table for your requirements. However, should you need a rotor for tube size not indicated, we can make a rotor for you, all we need is two sample tubes and indication of rotor capacity, we will do the rest.

We also can supply adaptors that will allow you to use either Savant or Heto rotors in the ScanSpeed MaxiVac centrifuges.

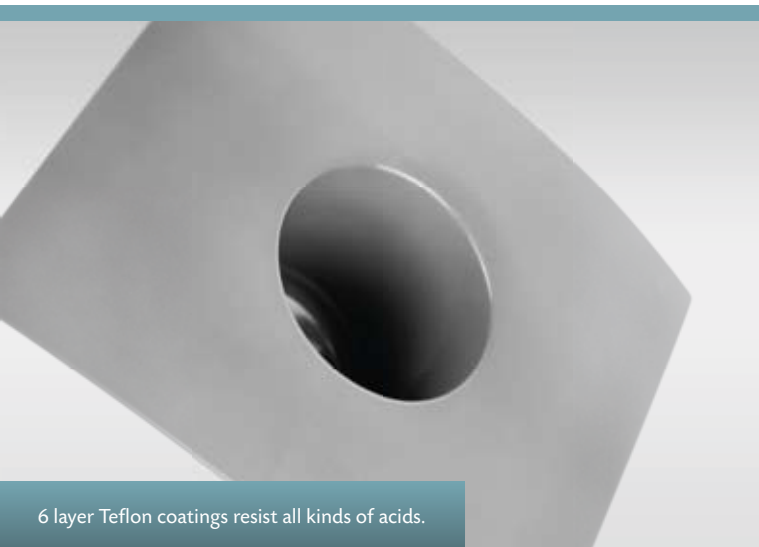
Cat. No.	Description	Tube capacity	Tube size, Ø x length, mm
7.008.100.101	Rotor for 200 x 1.5 mL Eppendorf Tubes	200 x 1.5 mL	11 x 38,5
7.008.100.102	Rotor for 8 x MicroTitre plates	8 x MicroTitre plates	
7.008.100.103	Rotor for 12 x 50 mL tubes	12 x 50 mL	29 x 115
7.008.100.104	Rotor for 58 x 15 mL tubes	58 x 15ml	16-17 x 115
7.008.100.105	Rotor for 84 x 10 mL tubes	84 x 10ml	14-15 x 100
7.008.100.106	Rotor for 96 x 5 mL tubes	96 x 5ml	12-13 x 75
7.008.100.127	Rotor for 4 x 200 mL tubes	4 x 200 mL	60 x 135
7.008.100.128	Rotor sandwich	customer choice	? X ?
7.008.100.129	Rotor for Ampoules 132 pcs	132 x Ampoules max 132 mm	10-11 x 132
7.008.100.130	Rotor for Ø 18-19 x 54 tubes	54 x Tubes	18-19 x 54



## The choice of Teflon coating

When working with aggressive acids and solvents such as 6N HCl, TFA, DMSO etc., the option of having a "hard-heavy" Teflon coating of the condenser chamber is available and highly recommended.

This ensures longevity, easy cleaning and decontamination of the Cold Trap condenser. This is a wise choice when considering options of benefit, especially when requiring a low temperature condenser with versatility, multipurpose applicability and resistant to heavy usage with most aggressive liquids and solvents.



6 layer Teflon coatings resist all kinds of acids.

## Seamless chamber with external cooling coil

On the picture below is illustrated a Coolsafe condenser showing that the condenser cylinder is welded onto its top plate, forming a single unit. The cooling coil being located on the outer surface of the cylindrical condenser.

This design and construction gives an unrestricted large surface area for ice formation, without seals or gaskets which are usually the cause of malfunctions or breakdowns. It also allows for easy, quick, efficient, de-icing and cleaning.

## De-Ice

Usually an electric de-ice facility is not always necessary, especially on small volume condensers. A small amount of hot water introduced into the condenser will allow removal of the "ice core" (as illustrated), with thawing of residual ice and consequent drainage. After wiping dry the condenser/freeze dryer is ready for operation again in a few minutes.

If electrical de-icing is a requirement, this is available as an option. At the press of a button, the condenser wall is gently warmed and releases the "ice core" which can then be removed, condenser wiped dry and its ready for operation.



Fast and Easy De-icing.



Seamless condenser and cooling coil outside of condenser for best trapping performance at  $-110^{\circ}\text{C}$ .

## What condenser temperature is required?

If samples contain even small amounts of acids or organic solvents and the effective condenser (cold trap) temperature is above  $-100\text{ }^{\circ}\text{C}$ , the resultant vapours will not be trapped by the condenser and will enter the vacuum pump, contaminating the oil (not membrane pumps). This depletes the vacuum level and consequently decreases the sample evaporation rate, also it may cause sample damage and pollution of the laboratory environment.

## Wide Range of Freeze Drying possibilities

Besides employing the manifold for freeze drying in flasks, freeze drying can also take place using the ScanSpeed Maxi Vac vacuum centrifuge, especially for small samples.

Centrifugation maintains the sample at the bottom of the tube and improves the rate of recovery. If the sample is not frozen because of organic solvent content, the same applies.

The choice of a low pressure vacuum pump and  $-110\text{ }^{\circ}\text{C}$  Cold Trap allows the combination of vacuum concentration and freeze drying in one system, that is the hallmark of Scanvac's heritage.

## CoolSafe Cold Traps

The CoolSafe range of Cold Traps comprises of wide range of condenser volumes, from 4 to 15 litres and with a choice of either  $-55\text{ }^{\circ}\text{C}$  or  $-110\text{ }^{\circ}\text{C}$  temperatures.

The condensers are densely insulated in order to save energy to give enhanced performance characteristics.

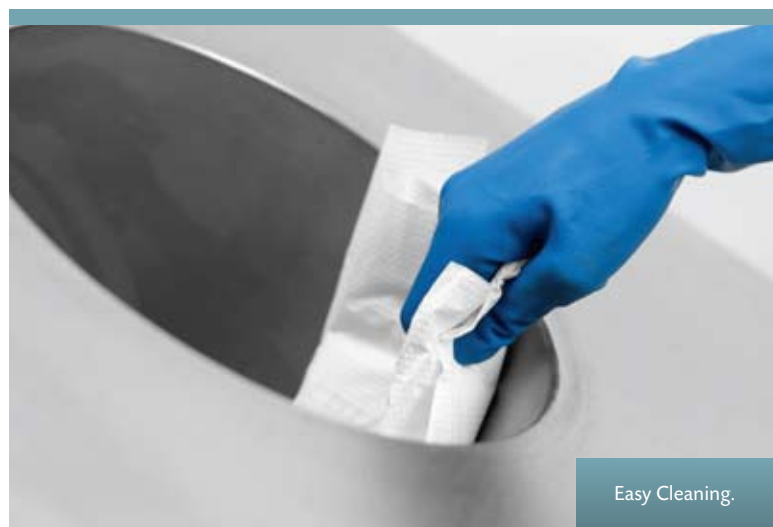
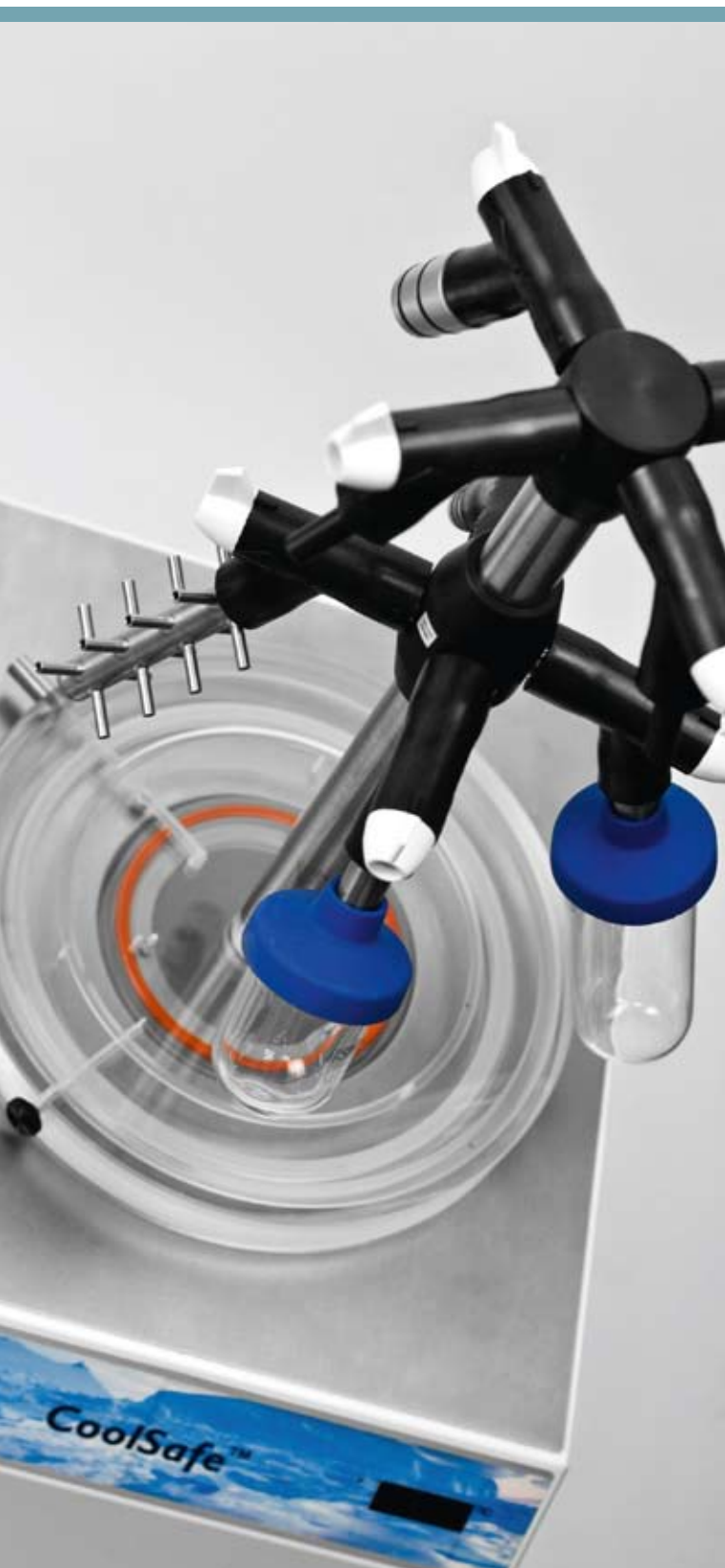
The seamless, gasket free construction ensures longevity and maintenance free usage, together with easy cleaning and de-icing.

The high cooling capacities, on all models, are measured over a 24 hour period and give fast, efficient and reproducible drying performance coupled with high recovery rates of the biological activity.

The lower the condenser temperature...the better! - for aqueous samples a  $-55\text{ }^{\circ}\text{C}$  condenser temperature is usually the preferred choice, but a lower temperature condenser will give faster drying, better results and provide protection for both the vacuum pump and environment.

Therefore we would always recommend  $-110\text{ }^{\circ}\text{C}$  Cold Traps for faster drying rates and enhanced protection of the pump, the environment and your samples.

As an option we can supply a Glass Insert with quick-seal lid, for easy and safe removal of condensates that may be aggressive or harmful- but remember the use of a glass insert lowers the performance efficiency of the Cold Trap.





Wide range of condensers; also includes  
-55 °C and sizes up to 15 litres.



## Accessories for Freeze Drying

Please contact us for further details of the options we can offer  
from our extensive accessory programme.

Cat. no	Type	Description
7.001.200.101	Flask300	Freeze drying flask/chamber 300 mL with rubber lid for connection to 3/4 inch rubber valves
7.001.200.102	Flask600	Freeze drying flask/chamber 600 mL with rubber lid for connection to 3/4 inch rubber valves
7.001.200.103	Flask1200	Freeze drying flask/chamber 1200 mL with rubber lid for connection to 3/4 inch rubber valves
7.001.200.100	Flask150	Freeze drying flask/chamber 150 mL with rubber lid for connection to 3/4 inch rubber valves
7.001.000.072	C29/32	3/4" aluminium cone 29/32
7.001.000.073	C34/36	3/4" aluminium cone 34/36
7.001.000.074	C24/29	3/4" aluminium cone 24/29
7.001.200.105	RB300	Round bottom 300 mL freeze drying flask for cone
7.001.200.106	RB500	Round bottom 500 mL freeze drying flask for cone
7.001.200.107	RB1000	Round bottom 1000 mL freeze drying flask for cone
7.001.200.108	RB2000	Round bottom 2000 mL freeze drying flask for cone
7.001.000.076	AmpMan16	Ampoule manifold in stainless steel for 3/4 inch rubber valves with 16 x 6 mm pipes
7.001.000.063	M4Ext.	Extra manifold incl. 4 Rubber Valves 3/4" for freezedrying in flasks (May be prolonged with M4Ext)
7.008.100.004		Adapters for old Savant rotors



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