SP Genevac™

EZ-2 4.0 Benchtop Evaporator Range

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EZ-2 4.0 Benchtop Evaporator

The latest SP Genevac EZ-2 4.0 series centrifugal evaporator for parallel sample evaporation has been redesigned with simplicity in mind and is based on our decades of expertise in evaporation science. A modern and compact space-saving design – so you'll still be able to find space in the fume hood or on the lab bench – the EZ-2 is now even more powerful and versatile to streamline your evaporation workflows and accelerate breakthroughs in life science research.

Everything a Modern Evaporator Should Be and More

Solvent removal is an important step in a vast number of applications in many disciplines. The cutting-edge design of the EZ-2 delivers many advantages when it comes to solvent evaporation requirements and fitted with advanced technologies such as the Dri-Pure® anti-bumping system to prevent sample cross-contamination, automatic end of run detection, and sample temperature control software for precise temperature control. With unrivalled versatility, this ensures effortless, fast, and safe sample evaporation to give total peace of mind.

- New touchscreen interface, featuring more pre-set methods, ensures effortless "day-in, day-out" use
- Ergonomic redesign with the front facing SpeedTrap™ jar for easy visibility and safe removal/replacement
- EXALT™ technology enables crystallization studies such as polymorph screening for added versatility
- Designed to reliably handle all common organic solvents and acids
- High power lamp and software improvements enhance overall performance
- Enhanced environmentally friendly features for a greener footprint
- Low maintenance for worry-free user operation

Load. Set. Go!
Excellent Results For Everyone

The EZ-2 4.0 is simplicity itself, with no need for special training – you simply load, set the temperature, select the appropriate preset method, and press Start. The new high power lamps ensure speedy evaporation, and when your samples are dry, or the concentration end point is reached, the system stops automatically. You can now dry, concentrate, lyophilize or use EXALT to produce crystals – with total confidence.

Whatever The Solvent Or Application, There's An EZ-2 Model For You

STANDARD **Working With Volatiles? Try The EZ-2 Standard**

Designed for volatile solvents with boiling points up to 120°C. Fitted with a low maintenance, oil free diaphragm pump for a long life, quiet running and high performance. PTFE diaphragms and fittings resist attack by even the most aggressive solvents, so you can always be confident in the EZ-2's performance. All in a compact design with integrated condenser and pump.

PLUS **Drying A Variety of Solvents? Go With The EZ-2 Plus**

The more powerful pump and chamber heating means the EZ-2 Plus easily handles difficult solvents with higher boiling points – up to 165°C – including water, HPLC fractions and nitric acid. Features the same low maintenance, oil free diaphragm pump and fittings as the EZ-2 Standard. Similar footprint to the EZ-2 Standard.

ELITE **Tough Assignment? Send In The EZ-2 Elite**

Optimized for highest boiling point solvents above 165ºC, such as DMSO and NMP. The EZ-2 Elite features an external low maintenance, dry scroll pump for an even deeper vacuum that, combined with its auto defrost and draining condenser, enables enhanced solvent recovery, improved final drying of stubborn samples and fast lyophilization of HPLC fractions.

EZ-2 Plus

EZ-2 Elite

Flexible Options For Different Applications

HCl Option For Aggressive Solvents

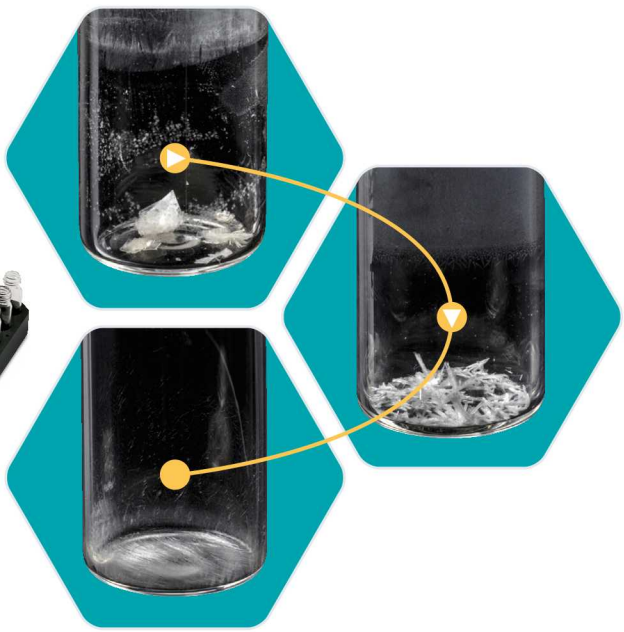
The HCl-resistant option enables work with the most aggressive solvents such as hydrochloric acid and other acid chlorides, reliably and without worry. Key elements of the system are engineered in Hastelloy*, glass or PTFE, to provide full protection against these acids. This option is available with all models.

Prioritizing Safety For Explosive Solvents

The integral Insert Gas Purge (IGP) system allows you to work with highly explosive solvents, such as diethyl ether or pentane. By flushing all the air out of the system before evaporation, and replacing it with inert nitrogen or argon, safe work can be ensured. The Inert Gas Blanket (IGB) feature fills the system with inert gas when the evaporator stops, and can be used to keep sensitive samples under a gas blanket until they are removed. This option is available with all models.

EXALT: Ensuring Crystallization Via Controlled Evaporation

Developed to help researchers conduct crystallization studies such as polymorph screening, EXALT technology enables a wide range of solvents to be evaporated at the same time, at the same slow rate over a defined time. This controlled evaporation method eliminates any variables and is a reliable way to produce crystals.



The Most Compact High-Performance Sample Evaporator

1. Interlocked lid only opens when the rotor has stopped for safety
2. Maneuvering handles for easy positioning of the system
3. Insulated and plastic-coated solvent resistant glass SpeedTrap jar in the EZ-2 Standard and Plus models collects the waste solvent as a liquid; easy to remove and replace
4. USB port for data transfer
5. Auto-draining condenser for the EZ-2 Elite model automatically drains the waste solvent when required
6. Touchscreen, optimized methods provide 'walk away' automation
7. H-shaped rotor design accommodates vials, tubes, flasks, bottles, plates and more
8. Connection panel
9. Easy access to the lamp bay to replace lamps
10. High power lamps ensure speedy evaporation

Features & Benefits

Complete Sample Protection

Your samples are precious, and our sample protection systems will make sure the temperature and pressure are controlled to protect your samples throughout the evaporation process.

No Bumping

Our Dri-Pure anti-bumping technology eliminates sample cross-contamination and sample loss so you can confidently evaporate many samples at once to make more time for science.

'Press And Go' Control

The latest touchscreen controls feature intuitive navigation for enhanced monitoring and review of the evaporation process. A wider range of preset methods means easy 'Press and Go' operation for generic solvent groups. All run data is logged for future reference.

Compact

We know how scarce lab bench space is, so a compact system to fit any space.

User-Friendly

Simplicity is key, whether to start a run or changing a seal, it is designed to keep it simple for the user.

Fast Lyophilization

The EZ-2 Elite model can be used to lyophilize HPLC fractions and other aqueous based samples to achieve a compact fluffy powder to make weighing and re-solubilizing easy.

Crystallization

With EXALT software enabled, it is now possible to produce crystals with ease.

Variety Of Sample Holders

A collection of sample holders to accommodate any type of vial, tube, flask, 96-well plates and our revolutionary SampleGenie™ flasks.

Compatible With Wide Range Of Solvents

Can successfully evaporate any common organic solvents, including high boiling solvents like DMSO, volatile solvents like diethyl ether and corrosive acids like HCl and other chlorinated acids.

Environmentally Friendly

Using Low Global Warming Potential (GWP) refrigerant, the EZ-2 is our greenest evaporator yet.

Life Time Applications Support

Excellent after-sales support to ensure your system is utilized to achieve optimal performance.

Easy Maintenance

Low maintenance reliability means you'll also benefit from worry-free operation.

Accessories

Holders For Any Type Of Sample

Our wide range of sample holders means that all common sample formats can be accommodated with ease.

- Side-bridge swings accommodate a range of sample blocks for tubes and vials
- Fast-stack microplate holders accommodate two deep-well or four shallow-well plates per rotor position
- One-piece holders, which fit directly onto the rotor, are available for larger tubes, bottles, and flasks

All our sample holders are manufactured from high-grade solid aluminium to very tight tolerances that ensure a close fit for optimum heat transfer, and they are mass balanced so your evaporator always runs smoothly.

Cut Out Unnecessary Steps With SampleGenie

Our unique SampleGenie flask and sample holder technology enables large volume samples to be dried or concentrated directly into the small vial of your choice. HPLC fractions can be combined into one flask and dried, or fast lyophilized into the final vial, saving many transfer steps during the process.

Infinity Trolley

Our Infinity Trolley is a modular system, designed to accommodate our whole range of evaporation equipment including the new SP Genevac EZ-2 4.0 series. Simply join as many trolleys as you need side-by-side to optimize space within the lab. The trolley's upper shelf holds the evaporator, whilst the unique lower shelf 'truck' accommodates the pump and solvent waste container.

Specifications

Evaporator	
Max. rotor speed	1920 rpm
Nominal sample load g force	500 g
Temperature control range	30 °C to 80 °C
Max. load per swing	1.5 kg
Max. operational imbalance	80 g
Dimensions (W x D x H)	613 x 648 x 560 mm
Weight (approx)[1]	90 kg

Elite Vacuum Pump (External)	
Type	Oil-free scroll
Ultimate system vacuum	< 0.4 mbar
Dimensions (W x D x H)	432 x 282 x 302 mm
Weight	26.2 kg
Vacuum hose/control cable	2 m

Plus / Standard Vacuum Pump (Internal)	
Type for Standard	Diaphragm pump
Ultimate system vacuum	< 11 mbar
Type for Plus	Diaphragm pump
Ultimate system vacuum	< 3 mbar

Condenser	
Type	Single-stage vapour compressor
Refrigerant gas	R1270
Refrigerant charge	28 g
Refrigerant GWP	2
Refrigerant CO_2e	< 0.1 tonnes
Ultimate low temperature[2]	-50°C
Max. pressure (PS)	30 bar

Emissions	
Noise (@ 1 metre)	65 dB(A)
Exhaust hose (supplied)	6 mm ID / 8 mm OD

Electrical	
Supply	230V 50 Hz
	220V 60 Hz
	120V 60 Hz
	100V 50 Hz
	100V 60 Hz
Max supply input	1500 A

Storage/Transportation Environment	
Ambient temperature	0 °C to 40 °C[3]
Relative humidity	10-80% non-condensing
Store upright at all times	

Operational Environment	
Ambient temperature	15 °C to 30 °C
Relative humidity	10-80 % non-condensing
Altitude	Sea-level to 1600 m
Min. ventilation air-gap	50 mm
Installation environment	Indoor only
Static-dissipative laboratory or similar	

Solvent Capacity & ACC Range	
Max. solvent capacity	750 ml
Refrigeration ACC range	110 °C

Inert Gas Supply Requirements	
Max. pressure	2 bar g (3 bar abs.)
Max. consumption (purge)	250 litres approx.
Min. pressure	1.5 bar g (2.5 bar abs.)
Max. consumption (blanket)	50 litres/hour approx.
Flow rate (nominal)	50 litres/min @ STP[4]
Connector type	3/8 BSP female
Hose length	2.5 m

[1] Varies with build options
[2] Ultimate low temperature: operational values may vary
[3] -10°C permissible during transport only
[4] STP stands for standard temperature and pressure

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