



EZ-2 personal solvent evaporator



- All-in-one compact design saves valuable bench space
- Easier to use than a rotary evaporator
- Smart evaporation software gives great results every time
- Advanced technology offers total sample protection
- Versatile design accommodates a wide choice of sample holders
- Easy maintenance contributes to low cost of ownership

Everything a modern evaporator should be – and more

The EZ-2 series draws fully on the expertise of Genevac's engineers and the experiences of many scientists in the laboratory. Using advanced evaporation science, it has been designed specifically for solvent removal in life science research, be that concentration of samples, or complete drying. Genevac's long experience in vacuum engineering has resulted in the creation of a compact sample concentrator combining great performance, ease of use and compatibility with all commonly used solvents and acids.

does the rest for you, controlling the vacuum conditions, gradient and heater lamp. Once the samples are dry, or the concentration end point is reached, it stops the run automatically.

Genevac's patented Dri-Pure® sample protection system, which prevents cross-contamination and sample loss due to bumping, is provided as standard on the EZ-2. For extra peace of mind with thermally sensitive samples, the EZ-2 temperature control and Auto Stop systems protect your samples during operation. There is no need for special training – just load, set and walk away.

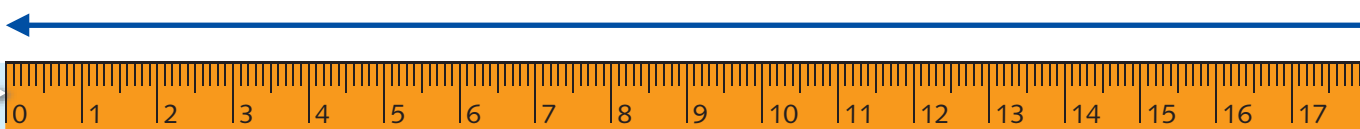


The innovative design of the EZ-2 presents real advantages to life science laboratories with solvent evaporation and sample preparation or concentration needs. At the heart of the evaporator are a robust, solvent resistant, oil free ILMVAC pump and the high efficiency, defrost-free SpeedTrap, which traps all solvents as liquids – even water.

To enable all users to achieve excellent results every time, the EZ-2 has been made easier to use than a conventional rotary evaporator. In addition to accommodating many more samples, it can operate entirely unattended. Simply set the temperature, select the solvent type, and press Start. The EZ-2



EZ-2 is simply the most compact high performance sample concentrator available



Actual width of the EZ-2 (excluding Catchpot)



Following the three steps shown here enables a first time user to set a safe temperature and select the optimum evaporation programme.

Methods names are displayed on the screen. Working with your local Genevac representative, new methods can be quickly and easily created and optimised in the laboratory to further enhance performance (EZ-2 Plus and Envi models only). For further details, go to www.genevac.com.

Operating the EZ-2 is as simple as 1, 2, 3. Load your samples and close the lid. Then:

- 1 Select sample protection temperature
- 2 Select solvent type/method
- 3 Press Start

... and walk away while the EZ-2 dries/concentrates your samples safely, smoothly and securely.

Dri-Pure® activates automatically when required and the system stops when the samples are dry / concentrated. Alternatively, a timed method may be set. The Pause button enables samples to be checked without disturbing the automatic programme. For safety, the lid only opens when the rotor has stopped. Out-of-balance and thermal cut outs are standard.

Choosing the right model

There are three EZ-2 models, Standard, Plus and Envi, each suited to a different application:



EZ-2 Standard
Suitable for water and volatile solvents with boiling point up to 120°C



EZ-2 Plus
Recommended for more difficult solvents with higher boiling points, as it is equipped with chamber heating and a more powerful pump. Most suitable for heavy loads of water and HPLC fractions.



EZ-2 Envi
Suitable for volatile solvents, where specialised methods are required to prepare samples for analysis.

Method	Details	S	P	E
Very low BP	Use for DCM, THF, Chloroform	✓	✓	✓
Very low BP mix		✓	✓	✓
Low BP		✓	✓	✓
Low BP mix		✓	✓	✓
Medium BP			✓	
Medium low BP mix			✓	
Aqueous		✓	✓	✓
Aqueous ammonia	NH ₃ or HCl when dissolved in water or MeOH	✓	✓	
HPLC Fractions			✓	✓
Centrifuge only			✓	✓
Envi method 1	2 ramps for DCM volatile mixtures			✓
Envi method 2	EtAc with solvent keep			✓

S = EZ-2 Standard, P = EZ-2 Plus, E = EZ-2 Envi



A low-cost option is available for the EZ-2 Standard and EZ-2 Plus for use with concentrated hydrochloric acid or nitric acid. Key elements of the system are engineered in Hastelloy®, glass or PTFE, to provide full protection against these acids. This 'HCl option' must be specified when ordering, as it cannot be retrofitted.



When working with highly explosive solvents, such as diethyl ether or pentane, the Inert Gas Purge (IGP) system is mandatory. The IGP flushes all the air out of the system before the evaporation process starts, replacing it with an inert gas – nitrogen or argon. Additionally, the IGP system fills the system with inert gas when the evaporator stops, and can be used to keep sensitive samples under a gas blanket until removed by the operator. Available on all models.

CONDENSER TRAP AND PUMP ARE BUILT-IN – YET THE EZ-2 STILL SAVES PRECIOUS BENCH SPACE



The revolutionary SpeedTrap™

The EZ-2 is fitted with an enhanced version of Genevac's revolutionary SpeedTrap. This highly chemically resistant cold trap is designed to condense solvents, in order to protect the environment, and help to speed evaporation. The SpeedTrap runs at -50°C to enable it to catch the most volatile solvents. However, it does not freeze the condensed solvent, even when working with water. Solvents collect in the insulated, plastic coated glass vessel, enabling the user to check the progress of evaporation and determine when the trap should be emptied. The glass vessel is removed by a quarter turn, allowing the solvent to be poured directly into the waste container. Replace the vessel with a quarter turn, and the EZ-2 is ready to run again.



The continuously draining catch pot provides enhanced recovery of the most volatile organic solvents.

Other sample holders are available on request – please visit www.genevac.com for a sample holder brochure.



Actual width of the EZ-2 (excluding Catchpot)

Individually optimised methods provides full 'walk away' automation with confidence

Condenser trap and pump are built-in – even so, the EZ-2 still saves precious bench space

Ultra-compact design, with all components integrated

High efficiency SpeedTrap which collects all solvents as a liquid – even water – so no defrosting is necessary

Dri-Pure® protects against sample 'bumping' while the SampleShield system prevents overheating

Insulated and plastic coated solvent resistant glass collecting vessel allows condensed solvent levels to be easily seen

Interlocked lid only opens when the rotor has stopped

Built-in fume extraction path

Additional low-cost Hastelloy® option available for use with hydrochloric acid and nitric acid

High efficiency solvent resistant diaphragm pump

Out-of-balance and thermal cut-outs as standard

Easy access for routine maintenance

Quiet operation from precision direct drive motor

Compatible with almost all commonly used solvents and acids, including TFA

High capacity H-shaped rotor design takes flasks, tubes, vials, reaction blocks, microtitre plates and SampleGenie

Polycarbonate reinforced glass window in lid



Mechanical Data

Max RPM	2000
Max G	500
Drive system	Direct
Sample load including swings	1.5 kg
Max. imbalance	40 g
IR lamps (number)	1

Vacuum System

Pressure display	0-1200 mbar
Pressure control	automatic, 10 mbar (2 mbar) - atmosphere
Bump protection	Yes
System ultimate pressure	10 mbar (2 mbar)
Auto vacuum vent valve	Yes

Temperature controls

Temperature control range	Ambient to 80°C
Temperature control accuracy	+/- 2.5°C
Temperature sensing	by SampleShield infra red pyrometer
Temperature display range	0° to + 80°C
Chamber temp. range	Ambient (Ambient to 60°C)
End of run determination	Automatic

Condenser Data

Condenser temperature	-50°C
Condenser power	70 Watts max load
Useable capacity - vacuum pot	1 litre
Materials - condenser pots	Vacuum insulated Borosilicate glass
Condenser coils	FEP coated

Solvent compatibility:

Boiling points	Up to 120°C (165°C)
Including: alcohols, DCM/methylene chloride, ethyl acetate, water, TFA, DMF	Only with EZ-2 plus
HCl	Only with HCl option
HNO ₃	Only with HCl option
Diethyl ether	Only with inert purge option

Dimensions

Width	(max) 597mm (570mm without catchpot)
Depth	(max) 645 mm
Height	(max) 700mm
Weight	82 kg (88 kg)

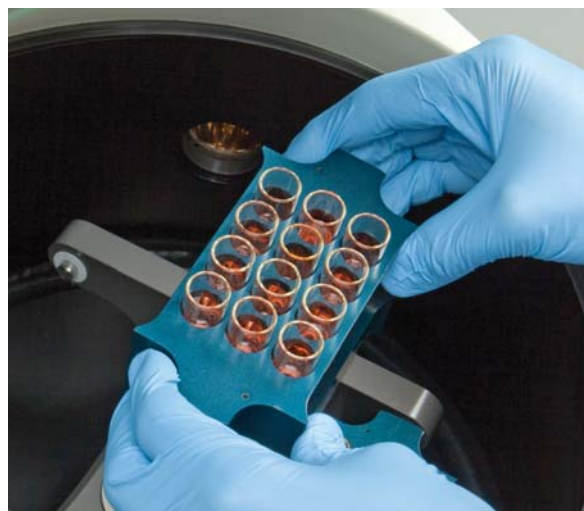
Services

Power supply	120V (±10%), 60 Hz, 15A (USA)
	230V (±10%), 50 Hz, 13A (UK + Europe)
	100V (±10%), 50 Hz, 15A (Japan)
	100V (±10%), 60 Hz, 15A (Japan)

Safety

Conforms to EN 61010-2-020:1995 for centrifuge safety. UL certification applied for.

(EZ-2 Plus specification shown in brackets.)



EZ-2 accepts a wide range of formats, including flasks, vials, tubes and microtitre plates.



The vacuum pump is an oil free ILMVAC pump with PTFE diaphragms and fittings to resist attack by even the most aggressive solvents. Pumps are designed for long life, quiet running and high performance. Should the pump ever need attention, it can be easily removed for inspection or replacement.



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