



TurboVap® LV

Volume Range up to 60 mL

The TurboVap® LV evaporation system is an automated high speed, low volume sample concentrator. It is an efficient alternative to the inconvenient set-up, constant monitoring and long evaporation times that are characteristic of conventional techniques.

With the TurboVap® LV system, you simply “load and leave”. A water bath gives an even temperature and gas flow is delivered over a set time period. Turn on 1 to 5 manifolds depending on the number of samples and the timer will alert you when your samples are ready.

Applications

TurboVap LV is commonly used for evaporation of solvents following solid phase extraction clean-up of drug samples or pesticide extracts. It is ideal for sample volumes of 1 mL to 30 mL that need to be evaporated in GC vials, microcentrifuge tubes, conical bottom tubes or test tubes. It offers a high throughput solution with 50 sample positions using the standard range of Biotage racks.

TurboVap LV can be used in conjunction with the RapidTrace®+ Automated SPE workstation that collects extracts in 12 x 75 mm, 13 x 100 mm, or 16 x 100 mm test tubes. For acidic solutions, Biotage offer PTFE coated nozzles to prevent corrosion. For volumes greater than 30 mL, an ASE compatible version of the TurboVap LV is available for use in conjunction with Dionex ASE* 200 columns.

*Dionex ASE is a registered trademark of Dionex/Thermo Fischer.

Evaporation Rates (10 mL solvent)

Solvent	Bath temp. (°C)	Gas pressure (psi)	Approx. time (min.)
Hexane	35	12	19
	50	12	11
	60	12	7
Acetonitrile	35	12	55
	50	12	32
	60	12	22
Dichloromethane	35	12	20
	50	12	15
	60	12	10
MeCN/water	35	12	35
	50	12	15
	60	12	10
Ethylacetate	35	12	7
	50	12	7
	60	12	7
Methanol/water	35	12	65
	50	12	50
	60	12	50
Methanol	35	12	26
	50	12	18
	60	12	18
Water	35	12	210
	50	12	140
	60	12	100

Specifications

Technology	Gas vortex technology
Number of samples	50
Gas control	Gas can be turned on to each of five independent manifolds when working with fewer than fifty samples. Gas regulator and gas gauge range from 0 to 20 psi/0 to 2 bar.
Timer range	1 to 99 minutes, 0.1 to 9.9 hours, or infinite
Max. sample volume	30 mL (60 mL with ASE version)
Final endpoint volumes	–
Solvent reclamation	–
Water bath temperature	Ambient to 90 °C. Temperatures below ambient can be regulated using the cooling effect of the evaporation process.
Gas supply requirements	Minimum inlet pressure 60 psi/4.1 bar Maximum inlet pressure 100 psi/6.9 bar
Gas consumption	At 10psi: 0.06 cfm/nozzle or 0.6 cfm/row of 10 nozzles or 1.699 L/min/nozzle. At 15psi: 0.1 cfm/nozzle or 1 cfm/row of 10 nozzles or 2.83 L/min/nozzle
Exhaust	5.1 cm ² /2" venting exhaust (tube supplied)
Electrical supply	220–240 V~, 50 Hz, 5 A (UK & EU) 100–120 V~, 50/60 Hz, 10 A (USA & JP)
Max. power consumed	900 VA
Dimensions (WxDxH)	53.8 cm x 30.2 cm x 30.2 cm 21.2" x 11.9" x 11.9"
Weight	18.4 kg/40.5 lbs
Certifications	2006/95/EC Low Voltage Directive 2004/108/EC EMC Directive 93/68/EEC CE Marking Directive

Advantages

- » Patented vortex shearing technology
- » Proven compliance with EPA methods
- » 10x faster than centrifugal evaporators
- » 3x faster than hot blocks
- » 2x faster than conventional N₂ blow down
- » Unattended operation for up to 50 samples
- » Twelve racks available for tube sizes from 1.5 mL to 30 mL
- » Controlled water bath adjustable from ambient to 90 °C
- » Built-in nitrogen regulator
- » Unattended operation improves lab productivity
- » User-friendly displays and diagnostics
- » Convenient size – no hood space required

- » No tube balancing required
- » Easily swap racks to change between different tube sizes
- » Requires no additional equipment such as vacuum pumps and vacuum traps

Applications

- » Pharmaceutical biotech compounds
- » Clinical samples
- » Environmental samples
- » Forensic and crime samples
- » Drugs of abuse samples
- » Food and beverage analysis
- » Agrochemical samples