



## TurboVap® 96

### Deep or Shallow 96-well Plates

The TurboVap® 96 Concentration Workstation is a high speed concentrator designed to work with 96-well microplates and deep-well plates. It is an efficient alternative to the constant monitoring and long evaporation times that are characteristic of conventional techniques—with the added bonus of unattended operation.

The evaporation process is driven by Biotage's patented gas-vortex action, further enhanced by a temperature controlled environment and adjustable gas flow rates. This combination saves time, bench space and operating costs while improving the evaporation speed and sample-to-sample consistency.

### Applications

TurboVap® 96 has two independent compartments that accommodate 1 mL or 2 mL standard or deep well plates. Each compartment has independent control of gas flow and temperature. The flow rate of the gas is determined by the volume of solvent in the plate and the temperature values can be set with the help of an evaporation guide supplied. Nozzles are easy to clean and require minimal maintenance.

In genomic and proteomic applications, the evaporation of DMSO from plates is a common application. As is drying HPLC aqueous solvent mixtures of methanol or acetonitrile. TurboVap 96 complements automated 96-well SPE workstations that are widely used for drugs of abuse determination and other pharmaceutical SPE methods.

## Advantages

- » Patented vortex shearing technology
- » Operators are free to perform more important tasks, further improving lab productivity
- » No “bumping” means no re-working of samples, saving you money every week
- » User-friendly displays and diagnostics
- » Convenient bench top size—no hood space required applications
- » Pharmaceutical biotech compounds
- » Clinical samples
- » Environmental samples
- » Forensic and crime samples
- » Drugs of abuse samples
- » Food and beverage analysis
- » Agrochemical samples

## Specifications

<b>Technology</b>	Gas vortex shearing technology
<b>Number of samples</b>	2 x 96 well plates, standard or deep with adapters
<b>Format</b>	8 x 12 well microplates and deep-well plates
<b>Timer range</b>	1 to 99 minutes
<b>Max. sample volume</b>	<2 mL
<b>Final endpoint volumes</b>	–
<b>Capacity</b>	2 standard 96 well microplates or deep-well plates
<b>Heaters</b>	Two internal individually controlled heaters. Each adjustable from ambient to 80±5 °C.
<b>Gas supply requirements</b>	Minimum inlet pressure 30 psi/2.1 bar, Maximum inlet pressure 80 psi/5.5 bar.
<b>Range</b>	5–99 cfm
<b>Exhaust</b>	25 CFM blower with 5.1 cm (2”) venting exhaust (tube supplied)
<b>Minimum operating pressure</b>	70 psi
<b>Electrical supply</b>	220–240 V~, 50 Hz, 3 A (UK & EU) 100–120 V~, 50/60 Hz, 6 A (USA & JP)
<b>Max. power consumed</b>	620 VA
<b>Dimensions (WxDxH)</b>	30.5 cm x 30.5 cm x 61 cm 12” x 12” x 24”
<b>Weight</b>	18.4 kg/40.5 lbs
<b>Certifications</b>	2006/95/EC Low Voltage Directive 2004/108/EC EMC Directive 93/68/EEC CE Marking Directive

## Evaporation Rates<sup>1</sup>

Solvent	Solvent volume (uL)	Heater temp. (°C) <sup>2</sup>	Gas flow rate (cubic ft./hr.)	Time to evap. to dryness <sup>3</sup>
Methanol	500	70	60	12 min.
Water	500	80	60	70 min.
Acetonitrile	500	70	60	25 min.
Acetonitrile/water (50:50)	1000	60	70	1.75 hrs.
THF (Tetrahydrofuran)	1000	50	50	10–15 min.
DMF (Dimethylformamide)	1000	80	70	50 min.
DMSO (Dimethyl sulfoxide)	250	70	60	3 hrs.

1. Above studies were conducted with clean solvent in a standard 2 mL polypropylene 96 well, deep well microplate.

2. Not the temperature of the solvent in the well.

3. The conditions set on the TurboVap® (temperature and flow rate) may not be optimum settings for most efficient evaporation rates.