TurboVap® Technology

Highest Performance, Every Time

Starting with innovative engineering, TurboVap® systems from Biotage are designed with extensive customer input and testing. The result: industry-standard design and the highest performance in every way. TurboVap evaporators utilize a water bath system, providing higher efficiency and control and, unlike old heating blocks, consistently delivers fast and even results.

Highly Efficient, Patented Gas Vortex Shearing Technology

The patented vortex evaporation design makes evaporation up to 10x faster compared to other techniques. The vortex created by the moving gas travels down the tube to the solvent surface, where it increases the gas/solvent interface—providing faster evaporation than conventional methods. The combination of gas flow and temperature control is used to optimize the sample drying. Nitrogen is recommended as the best choice of gas because it is inert and minimizes the risk of oxidation. A clean oil—free compressed air supply at 60 psi can be used if the sample is stable and/or nitrogen is not available.

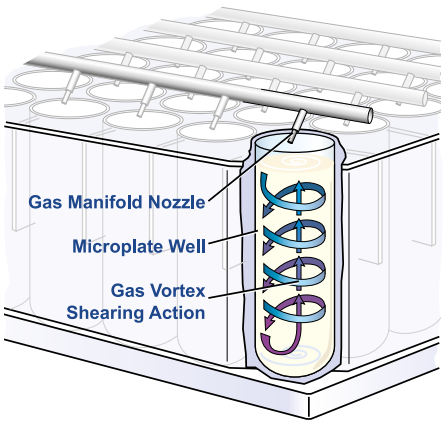

Figure 1. Principle of the gas vortex shearing technology. The position of the gas nozzle close to the tube wall is important for optimized evaporation.

Automated Evaporation Completion

The patented sensor technology alerts you with an audible alarm when evaporation is complete. This prevents the sample from going dry and volatiles from being lost. Sensor end-point detection is available with either 0.5 mL or 1.0 mL end-point stems.

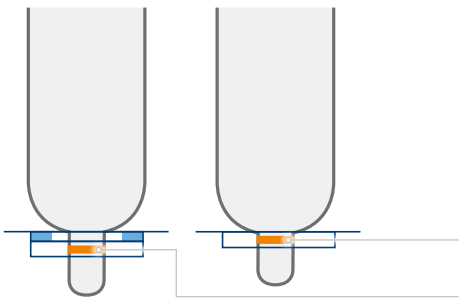

Figure 2. The selection between 0.5 mL and 1 mL end-point detection is easily done with a quick modification of spacers.

Fast, Consistent and Even Results

TurboVap® 500 does not require a fume hood or external gas supply for operation. It is designed as a closed system with up to 95% solvent recovery function for safe and economic waste handling.

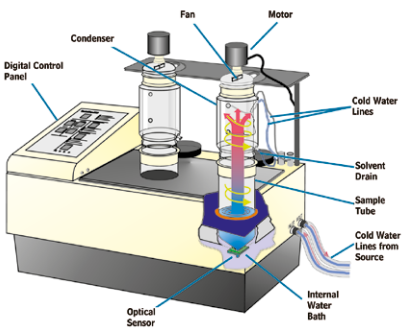

Figure 3. The helical flow establishes a vortex action that promotes sample homogeneity and continuous rinsing of the tube wall.

TurboVap® Family

Choose the Solution That's Right for You

TurboVap® II

The TurboVap II Concentration Evaporator Workstation is a microprocessor-controlled concentrator for unattended, automated sample evaporation.

- Unattended and automated
- Optical sensor endpoint detection
- 6 individually controlled vial positions
- No fume hood needed

TurboVap® LV

The TurboVap LV (Low Volume) Concentration Evaporator Workstation offers many interchangeable tube racks giving you the flexibility for automated low volume sample preparation. The microprocessor controlled monitoring system regulates timed operation, water bath temperature, automatic gas shutoff and operational diagnostics.

- 50 positions with user selectable racks for greater flexibility
- 1.5–30 mL volume

TurboVap® 500

The TurboVap 500 Concentration Evaporator Workstation is a closed-cell evaporation system that delivers automated sample concentration and solvent recovery using helical gas flow and sensor endpoint detection technology.

- Solvent vapors are collected by the condensers on the side walls for waste or reclamation.
- 2 individually controlled positions
- 500 mL volume
- 0.5 or 1.0 mL endpoint stems
- No fume hood needed

TurboVap® 96

The TurboVap 96 Concentration Evaporator Workstation is a microprocessor-controlled evaporation system for simultaneous, automated and unattended concentration of multiple samples.

- 2 positions with individual gas regulation
- Compatible with 96-well standard or deep well plates