

TurboVap® LV

Building on Solid Foundations

TurboVap® is a second generation product which builds on the solid foundations of the historic TurboVap product line and incorporates many new customer driven features. It still features the highly efficient patented gas vortex shearing technology, which is synonymous with the TurboVap brand.



New Vs. Old TurboVap® LV



TurboVap® LV 2017



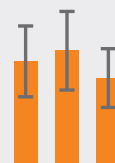
TurboVap® LV

This modern design features many new enhancements, including a well-lit glass tank for much greater visibility, removable/replaceable nozzles on the lid, on-the-fly nozzle adjustment, easily exchangeable manifolds to extend functionality, programmable evaporation flow gradients, easy access drain port and user friendly touch screen interface. The system can be vented from the bench or placed in a fume hood. Because the footprint is noticeably smaller on the modern unit, less space is required.

A novel and innovative feature of the new TurboVap® family is the Multi Rack that can be fully adjusted for a range of tube/vial sizes. By using the series of Multi Racks, the TurboVap LV will accommodate tube/vial sizes from 1.5 mL up to 60 mL. Two versions of the 48 position rack are available to accommodate most common glassware sizes. When used in the 24 position mode, the Multi Rack will accommodate 24 x I-Chem/ASE/EPA vials, 24 x 50 mL centrifuge tubes/Greiner or 24 x TurboVap II, 50 mL, 0.5 or 1.0 mL End Point Tubes.

In addition to the many user-friendly improvements, the new TurboVap LV outperforms its predecessor as well, providing faster Evaporation, higher analyte recoveries and lower RSD's. (Figures 1–3).

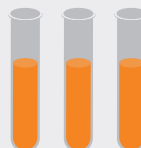
The new TurboVap LV is designed so that it can be easily and quickly converted between the functionality of the traditional LV and II instruments, as well as accommodate Extrahera Automation compatible racks.



Reduced
RSD



Faster
Evaporation



Improved
Recovery

For demanding applications involving the use of aggressive acids and bases we offer an upgraded version of the standard instrument which features a PTFE coated manifold and treated nozzles. This system is resistant to the following substances.

- » Trifluoroacetic acid (TFA) 2%
- » Trichloroacetic acid (TCA) 2%
- » Formic acid 5%
- » Acetic acid 5%
- » Butyric acid 5%
- » Phosphoric acid 5%
- » Hydrochloric acid 0.1 M
- » Nitric acid 0.1 M
- » Ammonium Hydroxide 5%
- » Triethylamine (TEA) 5%

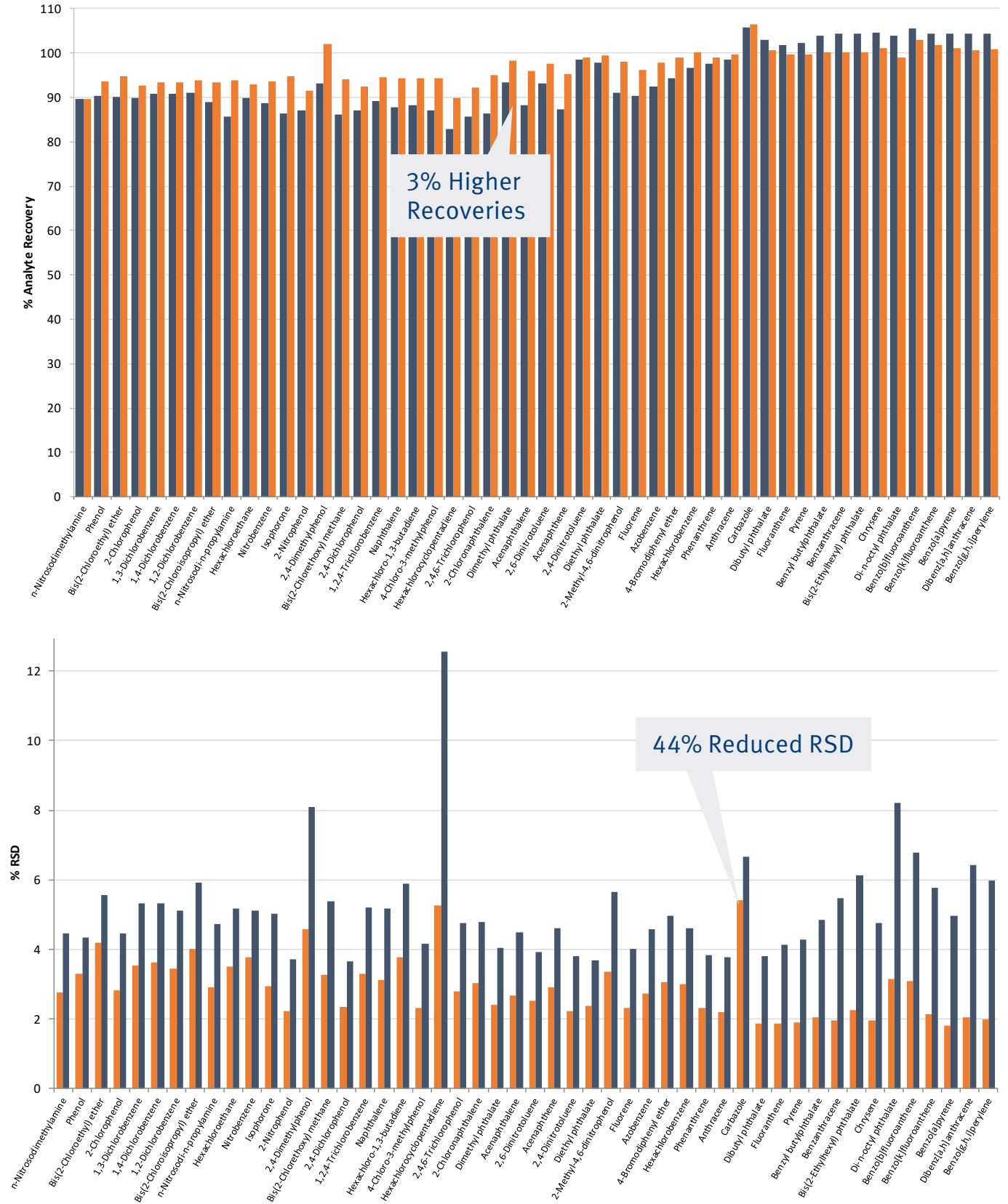


Figure 1. Recovery and RSD values on TurboVap® LV for different analytes using 13 x 100 mm tubes on a 48 tube Multi Rack. Starting Volume: 5 mL; Solvent: dichloromethane; Gas Flow: 1.8 L/min (10 psi on old TurboVap); Analyte Spike Amount: 10 µg; Final Extract Volume: ~ 0.5 mL.

█ New TurboVap® LV
█ Old TurboVap® LV

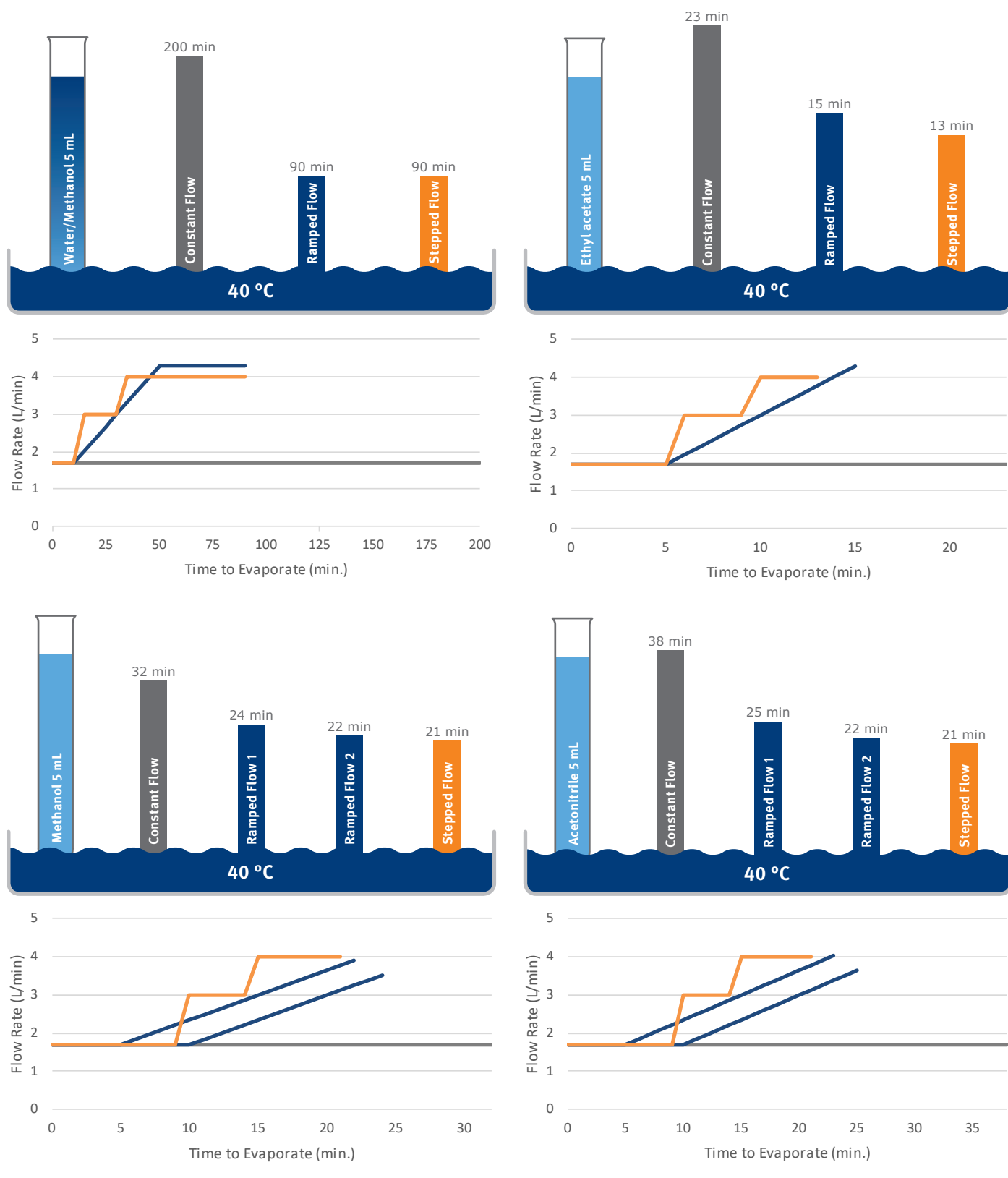


Figure 2. Approximate evaporation times for different solvents and evaporation modes using TurboVap® LV at 40 °C. The corresponding evaporation methods are outlined below each figure.

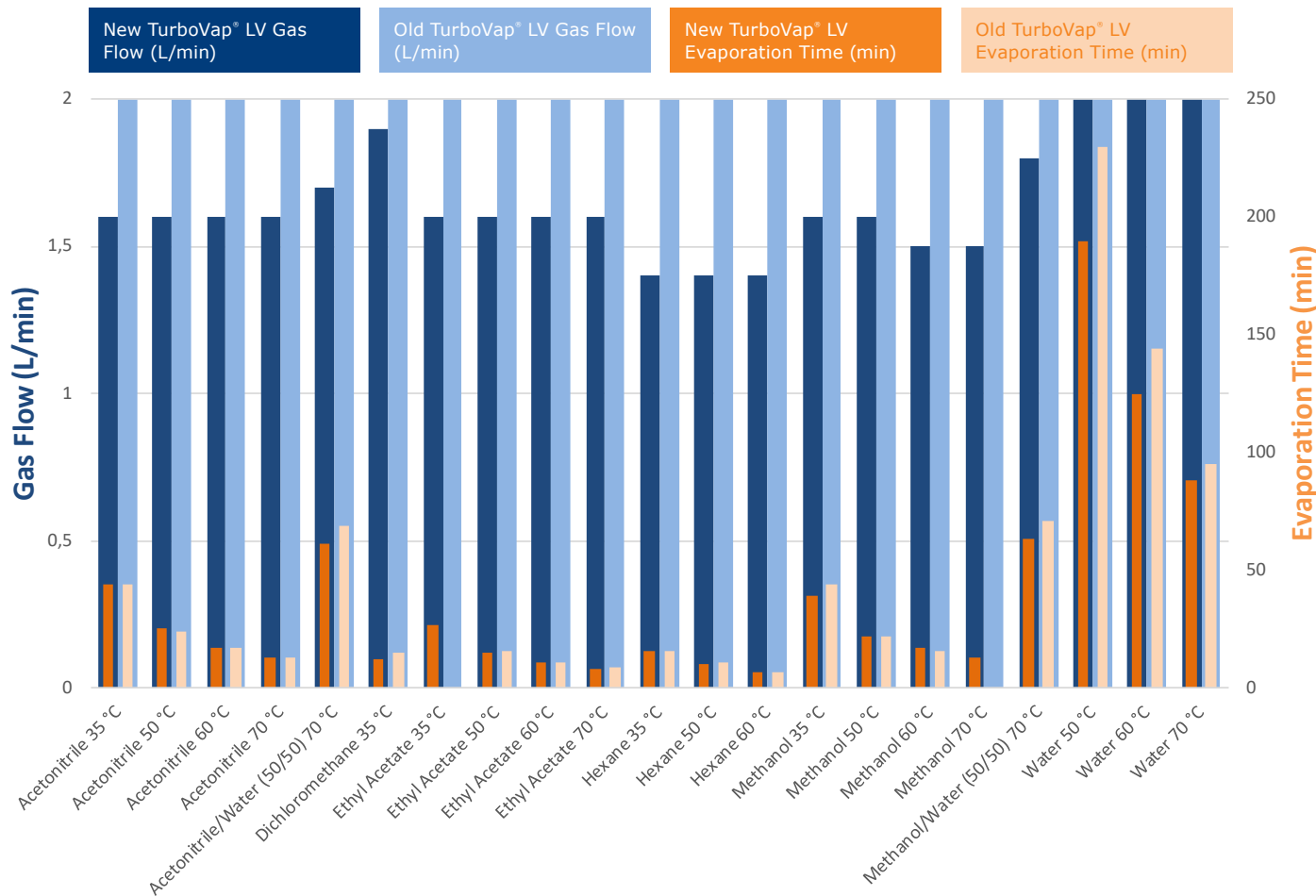


Figure 3. Comparison of evaporation times on the new vs. old TurboVap® LV. Note that the new model is faster even with lower gas flows.

- █ New TurboVap® LV Evaporation Time (min)
- █ Old TurboVap® LV Evaporation Time (min)
- █ New TurboVap® LV Gas Flow (L/min)
- █ Old TurboVap® LV Gas Flow (L/min)

Ordering Information

Part Number	Description
415000	TurboVap LV (includes 415408 manifold, but no rack). Rack must be ordered separately.
416200	TurboVap LV - PTFE Coated Manifold (Rack must be ordered separately)
415408SP	TurboVap LV Manifold (48 Nozzles)
416129SP	TurboVap LV Manifold (48 Nozzles) - PTFE Coated (for upgrade of 415000)
415489	TurboVap LV Multi Rack (48 Positions, 10-16 mm Mini Vials)
414964	TurboVap LV Multi Rack (48 Positions, 10-20 mm Tubes)
415129	TurboVap LV Multi Rack (24 Positions, 21-32 mm Tubes)

EUROPE

Main Office: +46 18 565900
 Toll Free: +800 18 565710
 Fax: +46 18 591922
 Order Tel: +46 18 565710
 Order Fax: +46 18 565705
 order@biotage.com
 Support Tel: +46 18 56 59 11
 Support Fax: + 46 18 56 57 11
 eu-1-pointsupport@biotage.com

NORTH & LATIN AMERICA

Main Office: +1 704 654 4900
 Toll Free: +1 800 446 4752
 Fax: +1 704 654 4917
 Order Tel: +1 704 654 4900
 Order Fax: +1 434 296 8217
 ordermailbox@biotage.com
 Support Tel: +1 800 446 4752
 Outside US: +1 704 654 4900
 us-1-pointsupport@biotage.com

JAPAN

Tel: +81 3 5627 3123
 Fax: +81 3 5627 3121
 jp_order@biotage.com
 jp-1-pointsupport@biotage.com

CHINA

Tel: +86 21 68162810
 Fax: +86 21 68162829
 cn_order@biotage.com
 cn-1-pointsupport@biotage.com

KOREA

Tel: + 82 31 706 8500
 Fax: + 82 31 706 8510
 korea_info@biotage.com
 kr-1-pointsupport@biotage.com

Distributors in other regions are listed on www.biotage.com

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