

Kbiosystems blowdown evaporators for sample concentration.

Kbiosystems Porvair evaporators are designed to remove the traditional laboratory 'bottleneck' of solvent evaporation from microplates prior to analysis or reconstitution in storage buffer. These evaporators give significant throughput advantages to laboratories looking to optimise microplate sample preparation productivity. Faster than centrifugal evaporation, significant increases in sample throughput are achieved through advanced evaporator head technology and an innovative manifold design, which directly injects heated nitrogen into each individual well of the microplate simultaneously. The evaporators have been designed to be simple to install, operate and maintain. Installation requires only connection to a gas supply or cylinder and mains electricity. Safety of operation is ensured as the CE marked compact units fit into all fume cupboards. Not suitable for high boiling solvents such as DMSO and water.



Order Code: RBX-10049

Ultravap® Levante



Order Code: RBX-10045

Ultravap® Mistral

- **Automation-Friendly:**

Flat front profile and platform shuttle (Ultravap® Mistral®, Mistral XT150) for greater interfacing with liquid-handling instruments

- **Reproducible Evaporation:**

Advanced head technology for consistent gas injection (up to 80°C) across all locations

- **High Sample Throughput:**

Choice of 12-, 24-, 48-, 96 and 384 needle heads Ultravap® Mistral® & Levante®

Choice of 12-, 24-, 48-, 96 and Custom needle heads available for Mistral® XT150

- **Clean Concentration:**

System built to eliminate risk of cross-contamination

- **Ideal for sensitive samples:**

Bulk of sample remains at ambient, only liquid surface is heated

- **Intuitive Design:**

Slim and compact bench-friendly design with built-in LED lights for greater sample visibility



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- **Benchtop Design:**

Flat front profile allows easy manual loading by user (45mm Max height)

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- **Intuitive Design:**

Slim and compact bench-friendly design with built-in LED lights for greater sample visibility

- **Adjustable Temperature Range:**

Accessible via the user interface or remote API, wide temperature range between ambient and 80°C

Efficient Sample Concentration

With a choice of needles heads, most common chromatography solvents can be evaporated with ease, including dichloromethane, methanol, acetonitrile and hexane. The choice of straight or spiral needles allows users to choose between faster dry down (spiral) and better final drying in V-well plates (straight).

Flexible Programming

The fixed holder for the plates or tube array is able to rise under the control of a stepper motor as the drying process proceeds. Fully programmable the suitable rising rate can be set for each solvent type being evaporated via the intuitive colour touch screen display. The User can set Gas temperature, pressure flow rate and the incremental rise rate in time and distance can all be programmed individually and stored, up to 10 multi-step programmes can be held. Each programme allows up to 3 ramped phases, so a fast initial drying period can be followed by a gentle final drying phase.

Standard control commands stored are accessible to allow compatible drivers for most robot manufacturers making integration a seamless process.

- Temperature management up to 80°C
- Up to 10 stored evaporation programmes & up to 3 programmable steps
- Pause mode for real-time monitoring of evaporation
- Open API for integration (RS232)
- Energy-saving Eco mode for extended heater and fan life

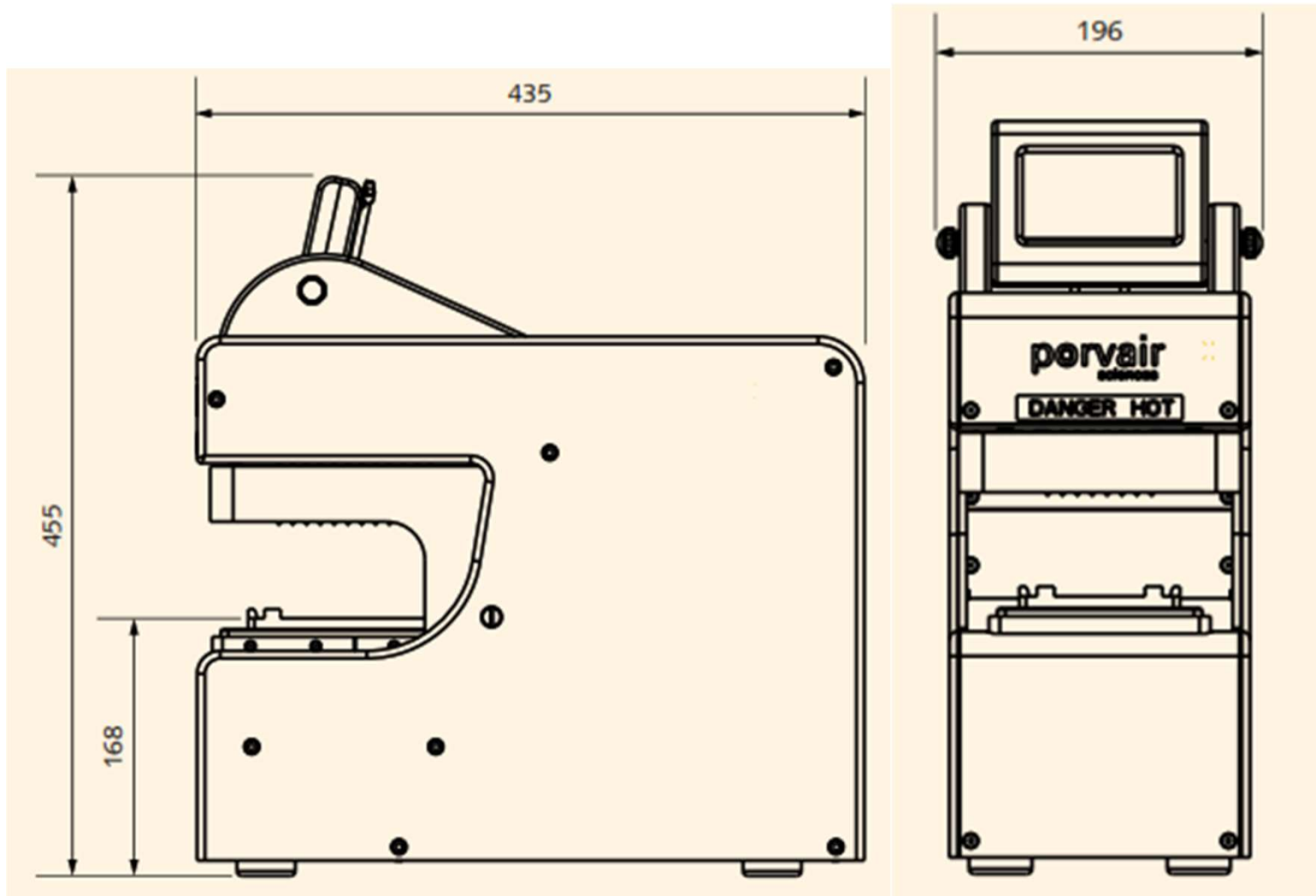
Ultravap® Levante



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General assembly.

Ultravap® Levante



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(45mm Max Height)

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Flexible Programming

The shuttle holding the plates or tube array is able to rise under the control of a stepper motor as the drying process proceeds. Fully programmable the suitable rising rate of the shuttle can be set for each solvent type being evaporated via the intuitive colour touch screen display. The User can set Gas temperature, pressure flow rate and the incremental rise rate in time and distance can all be programmed individually and stored, up to 15 multi-step programmes can be held. Each programme allows up to 5 distinct ramped phases, so that a fast initial drying period can be followed by a gentle final drying phase.

Standard control commands stored are compatible with drivers of most robot manufacturers making integration a seamless process.

Temperature management up to 80°C

Up to 15 stored evaporation programmes & up to 5 programmable steps

Pause mode for real-time monitoring of evaporation

Open API for integration (RS232)

CAN Link for multiple unit link up

Energy-saving Eco mode for extended heater and fan life

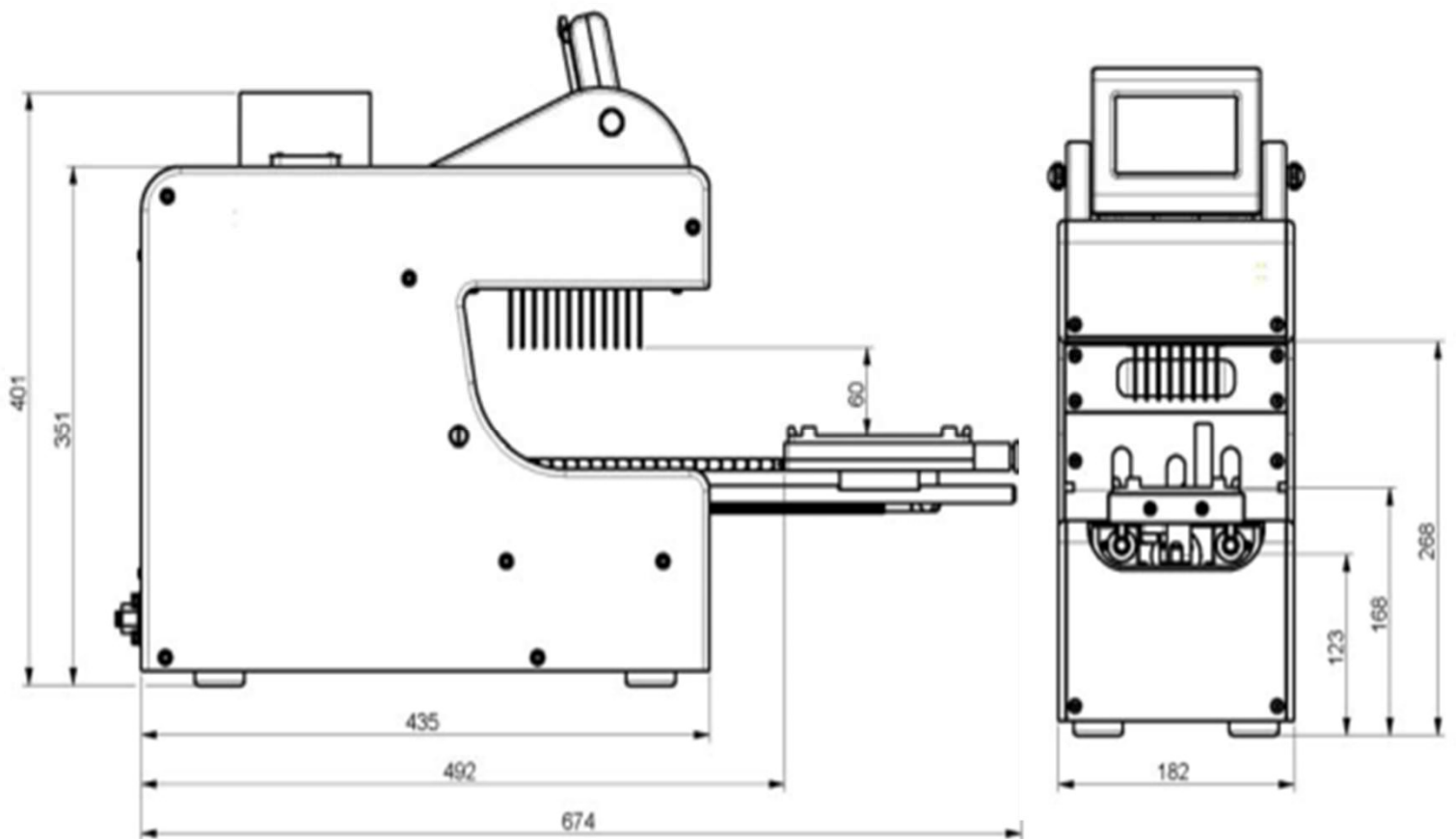
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General assembly.

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Key Features:

- Easy to program temperature settings
- Able to use multiple plastic ware manufactures plates across applications. Engineered with robustness in mind
- Gas heat ambient to 80°C
- Flow rate of gas up to 90 L/min, **note heater inactive below 35L/min
- 24, 48 , 96 needle process heads
- Programmable height adjustment
- Store methods for easy recall

Operational Requirements:

- 110 / 220vac, 50/60Hz,
- 10Amp socket outlet, system supplied with IEC lead
- The unit requires a gas supply rated to min 5.5bar max 6.5bar
 **flow rated to 80LPM for MINI and 160LPM for GEMINI
- Weights Approx. <10 kgs
- 435mm L x 196mm W x 455mm H – Levante
- 674mm (shuttle out) L x 182mm W x 455mm H - Mistral

Example approx. evaporation times:

Fixed Height 48.00mm	Temp°C	100% H2O			50% EtOH, 50% H2O			75% EtOH, 25% H2O			100% EtOH		
		Flow LPM			Flow LPM			Flow LPM			Flow LPM		
		30 LPM	60 LPM	90 LPM	30 LPM	60 LPM	90 LPM	30 LPM	60 LPM	90 LPM	30 LPM	60 LPM	90 LPM
Vol 50ul													
Time (Secs)	30°C	600	540	420	360	240	180	180	150	120	150	90	60
Time (Secs)	50°C	480	360	240	300	210	150	150	120	90	120	75	45
Time (Secs)	80°C	360	240	120	210	150	90	120	90	75	90	60	30
Vol 100ul													
Time (Secs)	30°C	1500	900	540	720	600	480	540	450	360	240	180	150
Time (Secs)	50°C	900	600	480	600	480	360	420	300	210	180	150	120
Time (Secs)	80°C	600	420	300	360	270	210	300	180	150	150	90	75
Vol 200ul													
Time (Secs)	30°C	3600	1800	1500	1800	1500	1200	1200	900	600	600	450	360
Time (Secs)	50°C	1800	1500	900	1500	900	600	900	600	480	390	300	240
Time (Secs)	80°C	1200	900	600	900	600	360	600	390	240	300	210	150