

# Evaporators, Sealers and other Equipment

## Product list 2019

 <p><b>Ultravap™ Mistral</b> Page 2</p>	 <p><b>Ultravap™ Levante</b> Page 3</p>	 <p><b>MiniVap™ Gemini</b> Page 4</p>	
 <p><b>MiniVap™</b> Page 4</p>	 <p><b>MiniSeal II</b> Page 8</p>	 <p><b>Sealing Foils</b> Page 8</p>	
 <p><b>MicroLute™ Manifold</b> Page 5</p>	 <p><b>Universal Robotic Manifold</b> Page 5</p>	 <p><b>MatCapper</b> Page 7</p>	 <p><b>AutoCapper</b> Page 7</p>

# Evaporators

Porvair evaporators provide a fast evaporation of liquids (e.g. methanol, acetonitrile, or hexane) in microplates, small bottles, HPLC vials, and tubes. Faster than centrifugal evaporation for single plates, significant increases in sample throughput are achieved through advanced evaporator head technology and an innovative manifold design, which directly injects heated nitrogen or dry compressed air into each individual well of a microplate or into individual vessels simultaneously. Installation requires only a connection to a gas supply and mains electricity.

Please note: The units are not suitable for high boiling solvents such as DMSO and water, and for use with strong acids or acid chlorides.

## Ultravap™ Mistral

The Ultravap™ “Mistral” from Porvair Sciences is designed to remove the typical laboratory ‘bottleneck’ of solvent evaporation from microplates. The Mistral is an automation friendly evaporator especially developed for the use with liquid handling systems. Safety of operation is ensured as this CE-marked compact unit fits into all fume cupboards and boasts full integral fume management within the unit.



Ultravap™ Mistral



Intuitive Touchscreen

- **Automatic evaporator for use with liquid handling systems**
- Plate shuttle sends/retrieves plates from robot deck, compatible with robotic liquid handlers from Agilent™, PerkinElmer®, Tecan®, Hamilton™ und Beckman Coulter®
- Adjustable shuttle position and height
- Choice of 12-, 24-, 48-, 96-, and 384-well heads with straight or spiral needles
- Manufactured for use with ANSI/SLAS standard plates with a maximum height of 80 mm (only in combination with 96-well needle head 500199, otherwise 55 mm)
- Up to 15 stored evaporation programmes
- Up to 5 programmable steps per method
- Rise and height of evaporation table, gas temperature, pressure and flow rate can be programmed individually
- Small footprint to fit into all standard fume cupboards
- Unit can be used with nitrogen or dry compressed air
- On-board digital flow controller allows accurate programming of real gas flow rates
- Intuitive graphical colour touch screen display with optional anti-splash membrane
- Also suitable for evaporation of HPLC samples in 1.5 ml HPLC vials using the 48-well head
- RS232 allows remote control via PC or liquid handling robot
- CAN bus gives possibility to main- and several secondary system configurations
- **NEW:** Mistral XT100 accepts plates or vials up to 100 mm high

Cat. No.	Description
500149	Ultravap™ Mistral, without needle head
500197	Ultravap™ Mistral, fitted with high plate guard, without needle head
500197EX	Ultravap™ Mistral XT100, specially designed to fit plates of 100 mm height, without needle head
500199	96-well short straight needle head for use with plates up to 80 mm high
500196	High plate guard for Ultravap™ Mistral
500194	Optional fume extractor fan complete plug-in assay with housing
500193	CAN bus interface cable with RS232 initiator and CAN terminator plugs

→ Please see page 3 for needle heads and additional accessories

# Ultravap™ Levante

## Fully automatic robot-ready blow-down evaporator

The Ultravap™ Levante is the latest evaporator of the successful Ultravap™ series of Porvair Sciences. The fully automatic evaporator combines stability through a robust and solvent resistant aluminium housing and the latest technology to fulfill the needs of modern laboratories. A touch screen and an easy-to-use programming allow a quick start of the device.



Ultravap™ Levante

	Start min	End min	Time min	Temp °C
Demo 1	17.50	40.00	5	60
Run Test	0.00	30.00	9	60
Cool Down	0.00	10.00	1	55
Heat Test	0.00	18.00	8	60
Demo 5	0.00	30.00	6	60

Program 5 methods with full alphanumerical code or transfer from PC via RS232 connection

- **Automatic robot-compatible evaporator**
- Choice of 12-, 24-, 48-, 96-, and 384-well heads with straight or spiral needles
- For heat sensitive and thermally unstable samples
- Manufactured for use with ANSI/SLAS standard plates
- Offering multi-step ramped programming with full alphanumeric programme naming
- Possible to save data on SD-card and upload it again
- Up to 5 stored evaporation programmes with 3 programmable steps per method
- Rise and height of evaporation table, gas temperature and flow rate programmable
- Full colour touch screen display
- RS232 allows remote control via PC or liquid handling robot
- Can evaporate 500 µl methanol in approx. 5 minutes
- Compatible with robotic liquid handlers such as from Tecan®, Hamilton™ and Caliper™
- Integrated auto-ranging power supply (110/230 V) and built-in fume venting
- Accommodates plates up to 55 mm in height in a variety of configurations
- Also suitable for evaporation of HPLC samples in 1.5 ml HPLC vials using the 48-well head
- On-board digital flow controller allows accurate programming of real gas flow rates
- Can be operated from a gas cylinder, an in-house supply of nitrogen or clean dry air

Cat. No.	Description	Price/Pc./€
500226	Ultravap™ Levante, without needle head	14,238.34
500194	Optional fume extractor fan complete plug-in assay with housing	470.13

→ Please see below for additional accessories

## Accessories and spare parts for Porvair Evaporators

Cat. No.	Description
229414	Needle head with 12 straight needles with <b>48 mm needles</b> for all Porvair evaporators
229415	Needle head with 12 straight needles with <b>38 mm needles</b> for all Porvair evaporators
229409	Needle head with 24 straight needles for all Porvair evaporators
229410	Needle head with 48 straight needles for all Porvair evaporators
229072	Needle head with 96 spiral needles for all Porvair evaporators
229036	Needle head with 96 straight needles for all Porvair evaporators
229073	Needle head with 384 straight needles for Ultravap™ Mistral and Ultravap™ Levante only
229650	24-well rack for 12 mm vials/tubes from solid aluminium
229216	Disposable plastic vial rack with clear bottom for 24 x 13.75 mm glass vials
500109	48-well rack from black PP, ANSI/SLAS standard, for 1.5 ml standard HPLC vials (also in our programme, enquire for details)
229048	Gasket for needle manifold for all Porvair evaporators

## MiniVap™ Gemini

### Two position blow-down evaporator

The new MiniVap™ Gemini brings together for the first time in the range of Porvair Sciences two individually temperature-regulated evaporation positions with a wide choice of head styles and configurations. This means you can dry down a 96-well deep well plate at the same time as 48 HPLC vials. This breakthrough in productivity will speed up the evaporation bottleneck in your laboratory, increase the sensitivity of your analyses and quicken sample processing times.



**MiniVap™ Gemini with two individually temperature-regulated evaporation positions**

- **Manual evaporator with two heads for high-throughput**
- Two individually temperature-regulated evaporation positions
- Simultaneous height adjustment of both plates
- Choice of 12-, 24-, 48-, 96-, and 384-well heads with straight or spiral needles
- Manufactured for use with ANSI/SLAS standard plates
- Easy adjustments of temperature, gas flow rates and needle depth into the wells
- Integrated auto-ranging power supply (110/230 V)
- Accommodates plates and vials up to 80 mm in height in a variety of configurations
- Also suitable for evaporation of HPLC samples in 1.5 ml HPLC vials using the 48-well head
- Can be operated from a gas cylinder, an in-house supply of nitrogen or clean dry air
- Heaters: Ambient to 60 °C
- Gas Pressure: min. 3 bar, max. 7 bar

Cat. No.	Description
500234	MiniVap™ Gemini, without needle head

## MiniVap™ Evaporator

Designed for low usage research and development departments where low numbers of individual plates or vials need drying. With manual control of the needle depth, gas temperature and flow rate, the MiniVap™ allows fine control and quicker drying times than other standard methods such as vacuum ovens.

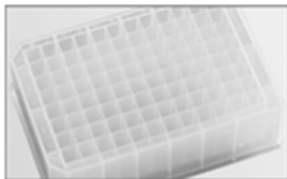


**MiniVap 229 206 with 96 straight needles**

- **Manually operated evaporator**
- Simple to install and operate
- Choice of 12-, 24-, 48-, and 96-well heads with straight or spiral needles
- Designed for ANSI/SLAS microplates
- Evaporates 500 µl methanol in less than 6 minutes
- Easy adjustment of temperature, gas flow rates and needle depth into the wells
- Compact footprint – fits all standard fume cupboards
- Can be used with nitrogen and dry compressed air
- Also suitable for evaporation of HPLC samples in 1.5 ml HPLC vials using the 48-well head
- Accommodates plates and vials up to 80 mm in height
- Faster drying times than other standard methods such as vacuum ovens

Cat. No.	Description
229206	MiniVap™, without needle head

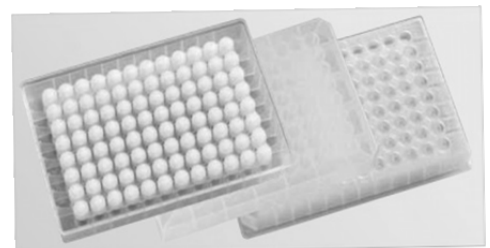
→ Please see page 3 for additional accessories



## Looking for suitable filtration plates?

We offer a full range of 48-, 96- and 384-well microplates with a choice of glass fibre, PES PVDF, polypropylene or polyethylene filter materials and well volumes ranging from 300  $\mu$ l to 5 ml.

**Please ask for our separate price list!**





# MicroLute™

– the complete 96-well sample preparation system from Porvair Sciences

## Parts of the MicroLute™ Systems:

- Filter plate
- Deep-Well Block or other storage container
- Vacuum Manifold
- Optional: MicroLute™ P<sup>3</sup>-Plate



## Optimal combination with evaporators of Porvair Sciences:

- MiniVap™ Evaporator (manual)
- MiniVap™ Gemini (manual with two evaporation positions)
- Ultravap™ Levante (full automatic)
- Ultravap™ Mistral (full automatic and robot compatible)



## Application:

- Purification of biological samples
- Protein purification
- Cleaning of phospholipids
- Protein precipitation

## Advantages of the MicroLute™ system:

- Manifold from clear acrylic for easy handling
- Plates from 100% polypropylen prevents contamination
- 3 standard sizes (350 µl, 1 ml and 2 ml) for optimal yield
- Consistent height of storage containers

→ For more information, please contact us

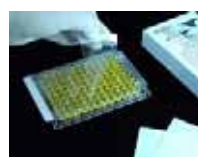


## Do you want to seal your plates?

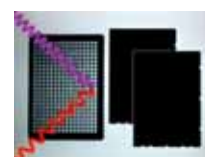
Our portfolio includes a wide variety of sealing mats, thermal seals as well as foils, and sealing films.

Whether you want to do automation, long-term storage, sonication, ELISA, PCR, qPCR, HPLC or protein crystallography, whether you want to seal single strips, single plates or multiple plates, we will find the right seal for you.

**Please ask for our separate price list!**



Seal Plate®



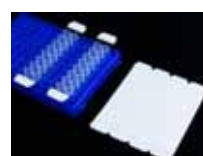
AbsorbMax™



ThermalSeal RT™



X-Pierce™



MiniStrip™



RollMate™



**Abbreviations:**

Al: aluminium

PE: polyethylene

PS: polystyrene

Si: silicone

EVA: ethylenvinylacetat

PP: polypropylene

PTFE: polytetrafluorethylene

**Price:**

Prices in Euro per unit, excluding VAT.

**Freight charges:**

Germany: We charge Euro 20.00 for delivery. Large delivery on a palette: please enquire.

Below a net order value of Euro 100.00 an additional charge of Euro 8.00 will apply.

Other countries: Please contact us for further information.

**Payment terms:**

30 days net or against pro forma invoice.

Prices are subject to change without notice. Prices supersede all prices in previous documents.

No responsibility is taken for the accuracy of the information.

02/2019