

# ORGANIC SAMPLE PREPARATION



**LabTech**

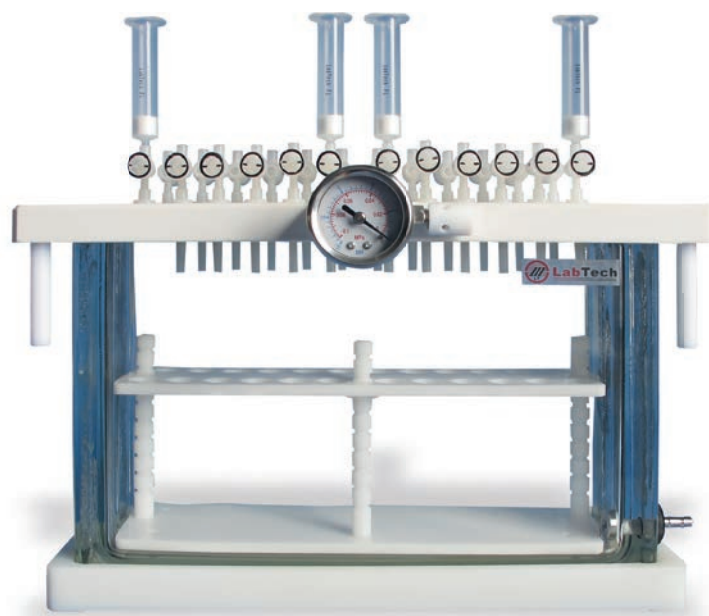
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# WSPE MANUAL VACUUM MANIFOLD

SPE Process control of the flow rate is critical to guarantee reproducible extractions. Differently than any other systems, LabTech WSPE vacuum manifold installs a patented valve system able to grant precise flow control through each cartridge. WSPE vacuum manifolds allows users to process up to 12 (WSPE12) or 24 (WSPE24) samples simultaneously.

## TECHNICAL FEATURES

- Glass base resistant to solvents preventing condensation and discolour
- Anticorrosion cover to avoid deformation under high-pressure working conditions
- High quality and reliable PTFE rack
- Screw-type solvent resistant vacuum regulator for accurate vacuum control
- PTFE rack for 11, 13 and 15mm tubes to satisfy daily use and all of customer needs



# EXTRAPID MANUAL CARTRIDGE-DISK EXTRACTOR

Extrapid manual SPE system is the ideal partner when treatment of large volume samples is required. A unique and flexible extraction solution for standard and routine SPE needs in environmental analysis.

## TECHNICAL FEATURES

- 3-ways valves to efficiently control the sample collection and the waste discharge
- During operation process:
  - No need to switch ON/OFF the vacuum pump
  - No need to wait for venting and removing collection vials
  - No need to drain the waste liquid and clean vacuum chamber
- Up to 4 samples run individually or simultaneously
- 1, 3, 6ml cartridge and 47, 90mm disk options
- Flow control valve ensuring accurate flowrate and high reproducibility
- Sample flowrate from 1 to 45ml/min
- Parts directly in contact with solvents made of PTFE or stainless steel to ensure excellent anticorrosion resistance

### Standard configuration

- Main unit
- Collection bottles
- Clamp ring
- Waste liquid bottle
- Vacuum pump

### Optional accessories

- 10L waste liquid tank
- 1L sampling glassware device
- 20L waste liquid tank
- 90mm/C18 SPE disk
- 90mm SPE disk adapter



# SEPATHS UP THE INNOVATIVE SPE SOLUTION

Sepaths UP is designed for both cartridge and disk applications to treat samples with different volume.

It can be applied to extract trace organic compounds from drinking water, surface water, ground water, food, beverage and other samples. Sepaths UP automatically treats from 1 to 12 same or different samples, through the whole treatment process, including condition, sample loading, rinsing, elution and concentration.

It is a closed system able to completely remove solvent vapours through the included exhaust line.



## TECHNICAL FEATURES

- 1 to 120ml/min flow rate
- Accurate control loading rate of small amount of sample
- Sample volume from 1ml to 20L
- Different cartridge and disk available
- Different sample collection vials options
- Display for real-time process
- Solvent and sample management system
- Fast concentration nitrogen flow
- Optional concentration module
- Automatic spray cleaning of sample bottles
- Possibility to manage via software up to 8 solvents
- Separated aqueous and organic waste collection
- Possibility to separate different sample phases
- Possibility to configure the system with 4, 6, 8, 10 or 12 samples
- 1 to 12 samples run simultaneously
- High pressure protection system
- Intuitive and easy to use software



### Complete software solution

- Possibility to run simultaneously different methods
- Real-time process monitoring
- Possibility to modify and create customized methods

### Optional Concentration Module

- Dedicated concentration for each channel
- Concentration accuracy of 0.1%
- Temperature control range: ambient to 120°C
- Fast concentration by nitrogen flow

Channel number	Sepaths UP-4	Sepaths UP-6
4	●	
6		●
8	● ●	
10		●
12		● ●

● Modular configuration for different number of sample channels

# SEPLINE-S AUTOMATION AND PRODUCTIVITY CONCEPT

SepLine-S automated solid phase extractor is the result of latest liquid-solid extraction techniques and mass chromatography highest requirements in terms of sensitivity and reproducibility.

Largely used in environmental protection, food, petrochemical, pharmaceutical, clinical, life sciences and other applications thanks to its flexibility.

SepLine-S series includes three models: Single, Dual and Four-channels.

Condition, sample loading, rinsing and elution steps are processed automatically by software according to user needs.

A unique low-pressure sealing technology accurately controls the liquid flow through the syringe and avoid cross contamination. Multi-channel mode improves the efficiency of the SPE method and guarantees reproducibility and stability of sample pre-treatment.

## LIQUID SEPARATION BY AIR BUBBLE

Thanks to air bubble, SepLine-S is able to avoid liquid mixing when two different solvents and/or samples flow into the liquid circuit. Advantages are:

- to prevent polarity change
- to improve sample recovery

## PRECISE FLOW RATE CONTROL

- High precision syringes
- High precision quantitative tubes to ensure accurate control of sample and solvent dispensing
- Flow accuracy: 0.1%
- Flowrate: from 0,1 to 100mL/min



### SepLine-S1

Single channel AutoSPE system to perform single sample batch processing. It can automatically achieve conditioning, sample loading, rinsing and eluting steps. Thanks to the included nitrogen purge module, SepLine-S is the ideal partner for routine and R&D needs in the organic sample preparation. The new quantitative concentrator can be connected to the main unit by a plug-and-play procedure.

### SepLine-S2

Dual channels AutoSPE system to perform simultaneously two samples. Management system allows running different methods for each channel.

### SepLine-S4

Four channels AutoSPE system to perform simultaneously four samples, improving efficiency and productivity.

## TECHNICAL FEATURES

- Automated process of sample transfer, rinse, loading, dry, washing, elution
- Positive pressure pump to ensure accurate flow rate and high recovery
- Automated holder for up to 60 cartridges controlled via software
- Unique low pressure sealing tech and air bubble technique to prevent sample/solvent cross contamination
- Standard nitrogen blow function
- Up to 8 different solvents managed by software
- Septum piercing function to prevent solvent evaporation
- Dispensing needle cleaning function to avoid cross contamination during liquid handling
- Different volume sample vials and rack options
- User friendly software with intuitive graphic interface
- Optional sample tray cooling device

## CARTRIDGE HOLDER MODULE

- SPE cartridges are moved by sliders to the set position via software
- Optimized design to allow cartridge exchange
- 60 sample extractions automatically handled via PC software
- Compatible with the majority of SPE cartridge specifications
- Fully closed treatment process to avoid solvent vapours to ambient

## SPE OPERATION MODULES

- Positive pressure extraction mode to ensure stability of the recovery rate
- Low-pressure sealing technology
- Air bubble technique to prevents solvent/sample cross-contamination
- Closed system to ensure environmental protection. No additional consumables required
- Possibility to upgrade the SepLine-S Single channel unit to multi channel versions

## AUTOMATIC LIQUID HANDLER

- Management of both sample injection and collection via software
- Optional cooling sample tray
- Fully closed system
- Possibility to choose the cleaning method and time. Needle is cleaned by immersion to avoid cross contamination



Petrochemical



Environmental



Clinical



Food



Pharmaceutical



Energy



# E.T. CONCENTRATOR BASIC SOLUTION FOR ANY LABORATORY



## TECHNICAL FEATURES

- Up to 6 samples
- Parallel concentration model
- Possibility to simultaneously or separately work with six channels
- Nitrogen blow in combination of heating concentration mode
- Dry block heating mode to avoid potential water vapour interference
- P.I.D. temperature control with digital display
- Possibility to choose the best position of nitrogen needle to ensure the most efficient evaporation
- Dedicated nitrogen flow regulator control for each sample channel
- Compatibility with collection vials of Sepaths UP
- Unique “open view” to control sample volume level during the evaporation process

# MULTIVAP AUTOMATED CONCENTRATION SOLUTION

The new LabTech MultiVap8 automatic parallel system increases the capacity and sample throughput in laboratories, and maintains quality and lower costs. With this system, users can evaporate to solid state or concentrate into a fixed end-point volume. A compact solution compared to conventional rotary evaporators, with the possibility to be used outside fume hood thanks to the integrated vapour exhausting system.



## TECHNICAL FEATURES

- Vortex nitrogen purge to get the highest concentration efficiency. The location and direction of nitrogen purge can be adjusted according to the concentration cup size and sample volume
- Operations visible through the backlit front window. Sample cups do not need to be handled to check the residual volume
- Sealed concentration chamber including a high efficient vapour exhausting system
- Built-in digital nitrogen gas regulator to control the nitrogen flow and the evaporation speed
- Automatically detecting the liquid endpoint
- 8 positions supporting 50 & 200ml concentration cups simultaneously
- 8 infrared sensors for single cup volume control
- Possibility to place concentration cups in the liquid handler of GPC/SPE directly
- Liquid bath with temperature control range from ambient to 99.9°C
- Low liquid level and pressure alarms to ensure safe operations
- Touch screen control interface

Solvents	Original volume	Time to 1ml	Evaporation speed
Dichloromethane	180 ml	20 min	9.0 mL/min
Hexane	180 ml	18 min	10.0 mL/min
Methanol	180 ml	50 min	3.6 mL/min
Acetone	180 ml	23 min	8.0 mL/min

Water bath temperature 60 °C

# MV5 AUTOMATED CONCENTRATOR REVOLUTIONARY CONCEPT!

MV5 is the latest multi-channel and multifunctional parallel instrument designed by LabTech, including all accessories and functions to grant highest standard of efficiency, speed, reliability, throughput and safety of any concentration process.

Nitrogen sweeping, needle level adjustment and visible concentration process are only few of the advantages offered by MV5.



## TECHNICAL FEATURES

- 54 sample positions able to work either individually or simultaneously
- Automatic adjustment of nitrogen needle according to the sample volume reduction
- Visible concentration process thanks to the front window and internal lights
- Auto-locked cover during operations
- Easy replacement of nitrogen needles
- 7" touch-screen color control panel
- Low-level liquid alarm
- Intuitive software interface

## HEATING MODULE

- Liquid bath heating mode
- Temperature reading error: < 0.5%
- Temperature control: P.I.D.
- Temperature accuracy:  $\pm 0.1^{\circ}\text{C}$
- Temperature range: ambient to  $100^{\circ}\text{C}$



# LabTech

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