MAXX®
Mess- und Probenahmetechnik GmbH

Large volume solid phase extraction (LVSPE)

The LVSPE is an automated high volume sampling system for the representative and cost-effective collection of water samples up to 1000 liter per sampling. The new device makes it possible to sample large volumes of water on-site by way of solid phase extraction and after separation of suspended particulate matter. The system aims to provide sample volumes that are appropriate for multiple chemical-analytical and bio-analytical purposes (e.g., target-, suspect-, or non-target screening analysis, and performing of *in vitro* or *in vivo* bioassays or effect-directed analysis). The system allows the on-site extraction of dissolved organic compounds with a broad range of physic-chemical properties from natural and industrial waters (including waste water) by using an one-step filtration and solid phase extraction procedure. LVSPE allows to get rid of tedious and costly transport, storage and manual extraction of large water volumes. Important benefits are low detection limits, the very high precision, the reduced probability of sample contamination and alteration as well as easy transport of samples. The automated, low weighed and low power consuming device is ideal for the unattended sampling in field scale.

Main functions and advantages:

- 12 V battery or 230 V mains-operated, automated sampling device and method for simple, inexpensive and representative sampling of large amounts of water over several days
- No time-consuming transport of large amounts of water to the laboratory
- Vacuum system for the representative sampling of water
- Chamber to store and to pressurize the water sample
- 3-way switch valve to connect to filtration and solid-phase extraction cartridges
- Filtration cartridges with glass fiber depth filters (<0.5 µm) to separate suspended particulate matter
- Solid phase extraction cartridges with a multi-component sorbents for the extraction of compounds with a broad range of physic-chemical properties from water samples

For further questions about this particular sampling system, please contact:
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Innovation made in Germany

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