



Auto SPE-06D

Automated Solid Phase Extraction

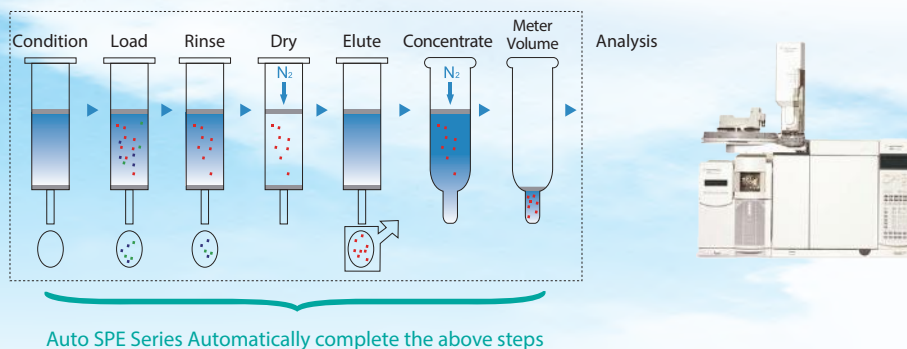
Product Summary

Auto SPE-06D is an automated solid-phase extraction system that is designed for the extraction and concentration of trace organic compounds in aqueous samples, e.g. drinking water, tap water, source water etc. The system automatically conditions, rinses, elutes SPE cartridges and collects and concentrates. Automatic sensor endpoint. Compare with vacuum manifold SPE, Auto SPE-06D saves time, solvent, labor ensuring high reproducibility and productivity for analytical laboratories and improves lab safety by minimizing operator contact with hazardous samples and chemicals.



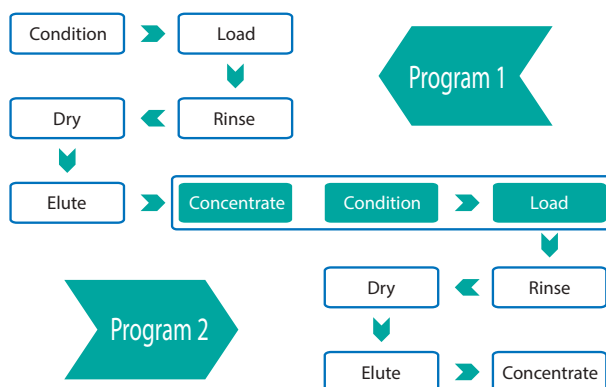
Main Features

Fully automatic



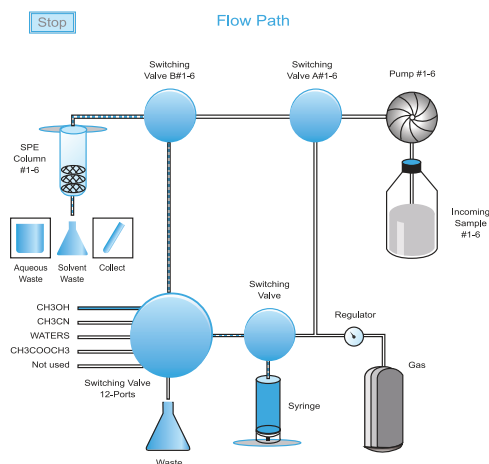
Overlap operation mode

When the eluted solution is concentrated, the system can process the next batch of samples, which significantly reduce the cycle time and improve the productivity.



Intuitive and easy of use operation software

User-friendly graphical interface minimizes the learning time while maximizing efficiency. Drag-and-drop functionality enables you to quickly and easily set up instrument configurations and define bed layouts.





Both disk and cartridge configurations
Available in both disk and cartridge
configurations to suit the needs of
every laboratory.

Option for serial columns operation



With visual window
Can timely monitor the status on
collection or condensation.



Built-in concentration module
Independent nitrogen blow
concentration and heat module.



conical bottom
collection tube



round bottom
collection tube



Graduated collection tube.
Infrared sensor endpoint.

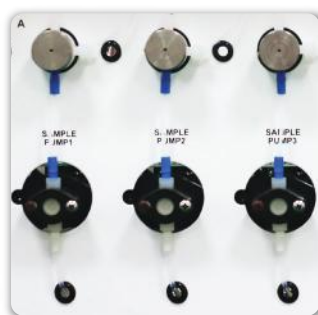
Compact design

Small footprint (500mm x 405mm x 605mm)
and can be easily put into fume hood.



Method transfer

All methods are stored in USB disk and directly transferred into the SPE system, so avoid computer to be placed next to the machine, saving laboratory space at the same time, avoiding the acid corrosion on the computer.



Automatically load the samples onto SPE cartridges at the positive pressure

Use ceramic valveless pumps and constant flow technology to continuously load sample at the positive pressure, which save time and allows unattended operation.



Environmentally-friendly operation

Segregate aqueous and solvent waste using separate waste lines. Closed systems with fan to vent solvent vapors and improves lab safety by minimizing operator contact with hazardous samples and chemicals.

Application

Auto SPE-06D is the ideal solutions for the extraction of pesticides, antibiotics, PAHs, PCBs, semi-volatile organic compounds, microcystin in aqueous samples. The system uses valveless pump to quantitatively take the samples, and syringe pump to condition, load, blow dry, elute and concentrate. In the case of unattended, Auto

SPE-06D can automate the whole SPE process for improved analytical precision and productivity.

The typical applications: Pesticides, PAHs, veterinary drugs, SVOCs, PCBs, herbicides, dioxins, furans, and explosives residue, and flame retardants.

The recovery study. The spiked PAHs in drinking water

No.	name	Abbreviated	Recovery(%)	RSD(% ,n=3)
1	Naphthalene	Nap	98.7	4.5
2	Acenaphthylene	Acpy	78.9	3.0
3	Acenaphthene	Acp	94.8	4.1
4	Fluorene	Flu	90.8	3.5
5	Phenanthrene	PhA	116.8	5.0
6	Anthracene	AnT	90.8	7.9
7	Fluoranthene	FluA	101.9	6.9
Is	Pyrene -d10	d ₁₀ -Pyr	97.8	3.5
8	Pyrene	Pyr	100.9	8.3
9	Chrysene	Chr	96.1	2.8
10	Benzo(a)anthracene	B(a)A	88.3	4.1
11	Benzo(b)fluoranthene	B(b)F	87.3	6.4
12	Benzo(k)fluoranthene	B(k)F	79.5	5.0
13	Benzo(a)pyrene	B(a)P	78.6	3.3
14	Indeno(1,2,3 -cd)pyrene	InP	75.7	8.1
15	Dibenzo(a,h)anthracene	D(b)A	72.5	9.4
16	Benzo(g,hi)perylene	B(ghi)P	72.0	4.5



The typical applications

US EPA525.2 Determination of Organic Compounds in Drinking Water by Liquid-Solid Extraction and Capillary Column GC/Mass Spectrometry

US EPA8270 Semivolatile Organic Compounds
By Gas Chromatography/Mass Spectrometry

SL 392-2007 Semivolatile Organic Compounds
By Gas Chromatography/Mass Spectrometry

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Specifications of RayKol Auto SPE-06D

Simultaneously process 6 samples.

simultaneously conditions, loads, washes, elutes, concentration and endpoint

Valveless pump for the continuously loading the sample and tolerate a certain particle size.

Sample volume: 10mL - 20 liter

Ability to support up to five reagents

Utilizes industry standard 1mL, 3 mL ,6mL, 12mL cartridge and 47mm disk

Segregates aqueous and solvent waste using separate waste lines.

Graphical software interface: Preview methods and monitor system status.

Option

Concentration mode

Built-in nitrogen blow concentration module

Heat module: Heated by metal block

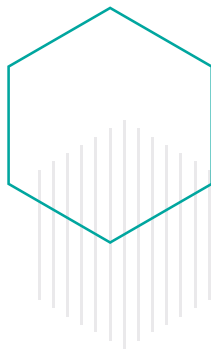
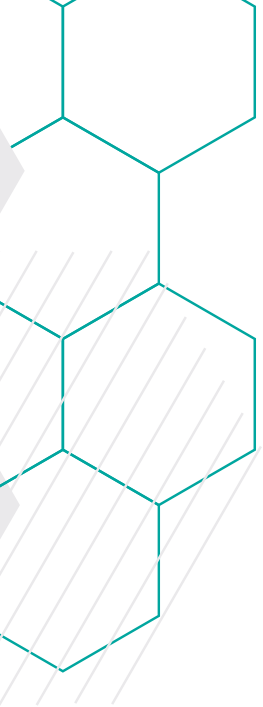
Ventilation module for waste solvent and gas.

Closed system for sample concentration: protect the laboratory from hazardous samples and chemicals exposure.

Overlap operation mode

When the eluted solution is concentrated, the system can process the next batch of samples, which significantly reduce the cycle time and improve the productivity.

Automatic Infrared sensor endpoint



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