



Solid Phase Extraction



Specifications

Uses

Sample preparation and sample introduction system for automated Solid Phase Extraction SPE based on standard cartridges. Conditioning, extraction and elution is performed in a sealed system. An automated concentration can be selected for improved detection limits. SPE can be combined with introduction of the eluate to a GC or LC system or performed off-line for subsequent analysis of the SPE eluate using a separate GC/MS or LC/MS system.

System Configuration

- compatible with most standard GC and LC systems
- automated operation based on the GERSTEL MultiPurpose Sampler MPS
- · GERSTEL Solvent Filling Station SFS included

Automated SPE Steps

- cartridge conditioning
- sample loading
- · cartridge drying
- elution
- eluate evaporation and analyte concentration
- sample reconstitution
- solvent exchange

Cartridge Types

- standard SPE cartridges with GERSTEL transport adapter
- 1 mL, 3 mL and 6 mL
- height of packing inclusive of frit
 4.5 ... 23 mm (for 1 mL and 3 mL cartridges)
 9.5 ... 23 mm (for 6 mL cartridges)
- more detailed information is available in a separate flyer

Capacity

- 72 × 6 mL cartridges
- 98 × 3 mL cartridges
- 98 × 1 mL cartridges

Sample Vials

• 2 mL, 4 mL or 10 mL

Sample Volume

- max. 8 mL per vial
- a sample can be split up into several vials

Eluate Collection Vials

• 2 mL, 4 mL or 10 mL

Syringes

- 1 mL or 2.5 mL, with gas connection
- syringe volume does not limit the injection volume, multiple injections are possible

Injection Volume

- 10% or more of total syringe volume
- in combination with LC, smaller sample volumes can be introduced using injection valves with small sample loops

Loading Speed

• 10 ... 250 µL/s

Evaporation Temperature

• ambient ... 120 °C

Agitation Speed

• 250 ... 750 rpm





Control

- in combination with the GERSTEL MAESTRO software, alternatively integrated in an Agilent® Technologies chromatography data system, or coupled to a chromatography data system from AB Sciex™ or Thermo Scientific®, or operated in stand-alone mode
- only one method and one sequence table required for the complete system including GC/MS or LC/MS system when integrated in the ChemStation software
- sample preparation steps can be selected by mouseclick from a drop-down menu
- SPE and chromatographic analysis of the preceding sample are performed simultaneously ensuring optimal productivity and throughput

Operating Sonditions

- 15 ... 35 °C
- relative humidity max. 50-60%, non-condensing
- max. 4615 m above sea level

Storage Conditions

- -20 ... 50 °C
- relative humidity max. 50-60%, non-condensing
- max. 4615 m above sea level

SPE Station

- dimensions 22.5 × 9 × 26 cm (H × W × D)
- weight 1.7 kg