

Universal Filtration Option

Specifications

Uses

The Universal Filtration Option for the GERSTEL MultiPurpose Sampler (MPS) provides automated sample filtration for up to 12 samples. The filtration step can be inserted into any part of a sample preparation and injection method using the GERSTEL-MAESTRO software. Due to its ease of use, and time savings when compared to manual filtration procedures, this option makes filtration practical for almost any analysis. The routine removal of unwanted components from the sample provides significant improvement in chromatographic column life and instrument maintenance intervals. The GERSTEL Universal Filtration Option automates widely used syringe type filters that are available with many types of membrane materials, diameters and pore sizes.

Filtration Steps

- Sample is drawn into the syringe
- Air is drawn into the syringe
- Filter is attached to the syringe
- Sample is passed through the filter and filtrate is collected in a vial
- The filter is discarded or placed back in the filter tray

Characteristics

- Compatible with most standard LC and GC systems
- Compatible with most commercially available syringe filters
- Automated operation with GERSTEL MultiPurpose Sampler
- Can be used with sealed vials
- Suitable for high particle load
- Filtrate vial can be moved out of the filtration station after the filtration step and therefore be used for further sample preparation steps

System Requirements

- GERSTEL MultiPurpose Sampler
- Wash station for syringe clean-up
- Sample vial tray and tray holder
- Filtrate collection vial tray and tray holder

Components

- Filter tray for up to 12 different filters, accommodates filter diameters of up to 40 mm
- Filtration station configured for use with 20 mL filtrate collection vials (inserts are available for 2 mL, 4 mL and 10 mL vials) with attached waste container for used filters
- 2.5 mL syringe, syringe holder and gripper

Filtration Volume

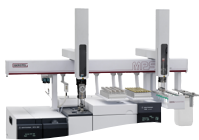
- 1 ... 5 mL per filtration step, depending on the particle load, membrane size, collection vial and syringe used

Filter Pore Sizes

- 0.2 μm
- 0.45 μm
- 1.2 μm (Glass micro fiber filters only)

Filter Membranes

- PTFE
- Polypropylene
- Regenerated cellulose
- Nylon
- PVDF
- Cellulose acetate
- Glass Micro Fiber



Membrane Diameters*

- 4 mm
- 17 mm
- 25 mm
- 30 mm

Filtration Velocity

- Approximately 20 $\mu\text{L/s}$

Materials

- Filter housing: PP
- Stainless steel needle

Syringes

- 1 mL or 2.5 mL, with gas connection
- optional – 5 mL without gas connection

Control

- GERSTEL MAESTRO software, integrated with Agilent® Technologies ChemStation or GC MassHunter software; integrated in the sequence table of Agilent LC MassHunter, AB Sciex Analyst®, or Thermo Scientific® Xcalibur™ Software or in MAESTRO stand-alone mode
- All parameters selectable by mouseclick

Operation Temperature

- 20 ... 35 °C

Storage Temperature

- 5 ... 40 °C

Dimensions (H x W x D)

- Filter tray:
21 cm x 11 cm x 36 cm
- Filtration station including waste container
40 cm x 12 cm x 35 cm

Other Filtration Options

- Filtration Option for up to 98 filters with a membrane diameter of 4 mm and a filtrate tray for 1.5 mL vials.

*) Different membrane diameters are not available for every material