



SPS3 Autosampler

- For the aurora M90 ICP-MS

SPS3 autosampler

The SPS3 Sample Preparation System, Bruker's fastest-ever spectroscopy autosampler, meets the diverse requirements of high-throughput analytical laboratories. It offers a range of productivity boosting features to decrease analysis times. Customize the SPS3 with additional options to further improve the quality of analytical results and reduce running costs.

- Fastest ever sample-to-sample speed provided by the novel arm movement
- Unlimited sample capacity with the ability to exchange sample racks during analysis
- Reduce cross contamination and rinse usage with the on-demand, flow through rinse station
- Compatible with a range of universal sample racks
- Contamination-free liquid flow path, with inert probe options utilizing metal-free transfer lines
- Provides variable speed settings for samples of different viscosities
- Avoids settling or separation prior to analysis with the optional diluter, which enables sample pre-mixing
- Eliminates tedious and error-prone manual dilutions with the optional diluter, which provides on-line, overrange sample dilution
- Prevents sample contamination from airborne particles and removes corrosive or toxic fumes during sampling with the optional environmental enclosure



● Key Benefits

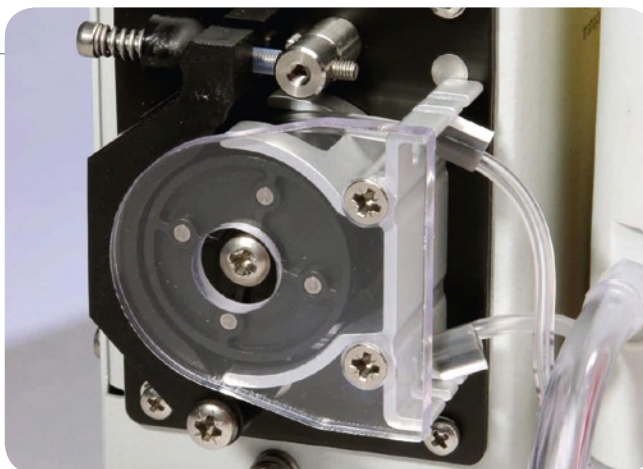
Flexible rack configuration

The SPS3 is compatible with a wide range of low-cost, commercially available sample racks, providing flexibility in sample handling and accommodating tubes from 13 mm to 30 mm. Sample racks are constructed from chemically resistant polypropylene. You can also choose 11- or 6-position standard racks, allowing operation with small or large standard volumes.

Add the diluter for online over-range dilutions

Power your sample preparation system with the addition of a high-precision optional diluter. Free your laboratory staff for other tasks and reduce pipetting errors by using the online over-range sample dilution. The precision syringe-based design incorporates a sample holding loop to prevent sample from ever entering the syringe.

The SPS3 and diluter typically delivers < 1% dilution error and reproducibility is better than 1%. If your samples are prone to settling or separation, you can set the SPS3 to pre-mix samples before analysis to improve accuracy.



An integrated peristaltic pump provides an on demand flow through rinse, which conserves rinse solution and minimizes sample contamination and carry-over.

Reduce running cost and increase productivity

The SPS3 is compatible with Bruker's productivity package accessory range, providing unrivalled turn-around time of sample results. By improving the efficiency of sample introduction and removal from the system, more samples can be analysed in less time. This results in greater revenue earning potential for your laboratory and reduces operating costs by minimising gas usage and replacement of consumable items. The ICP Mass Spectrometer, SPS3 autosampler and productivity package switching valve accessory are fully controlled by the intuitive Bruker Quantum ICP-MS software, for seamless operation.

Feature	SPS3	SPS3 with Dilutor
Automatic Sample Delivery	●	●
Flow Through Rinse Station	●	●
Online Over-range Dilution		●
Sample pre-mixing		●
Dust Cover	●	●
Purge/Extraction Kit for Dust Cover	●	●
Inert Sample Probe	●	●
Productivity Package	●	

● Standard feature ● Optional feature

● Specifications

The SPS3 is compatible with a wide range of commercially available, autoclavable, laboratory racks or customizable sample racks. The SPS3 is also compatible with an optional environmental enclosure, preventing contamination of samples from airborne contaminants and/or removing any corrosive or toxic fumes during sampling. The SPS3 uses RS232 communications for controlling the PC. An RS232 interconnecting cable is supplied.

High throughput SPS3 autosampler

High throughput autosampler with fast X, Z, theta arm movement. The SPS3 has the capacity for up to three sample racks and two standard racks. Racks may be exchanged during analysis for unlimited sample capacity. The SPS3 is supplied complete with two standard racks suitable for use with either 11 x 16 mm OD test tubes or 6 x 29 mm OD centrifuge tubes, and 3 x 60 position sample racks suitable for use with 16 mm OD test tubes. Any sample rack can also be used for standards. The SPS3 includes a built-in peristaltic pump for flow through rinsing with variable speed control. Compatible with on-line diluter (extra purchase option) for premixing of samples prior to sampling, or on-line over-range sample dilution. Optional software for off-line sample dilution and preparation of multi-element standards and reagent addition.



● SPS3 autosampler for the aurora M90 ICP-MS

Ordering information:

Description	Part number
SPS3 high throughput sample preparation system	0010052205
SPS3 sample preparation system with dilutor	0010082305
SPS3 is supplied complete with:	
<ul style="list-style-type: none"> ▪ Serial (RS232) cable ▪ 0.8 mm ID PTFE sleeved probe (1.0 mm ID for the SPS3 with dilutor) ▪ 2 x standard racks ▪ 16mm OD x 125 mm height tubes (2 bags of 125 tubes) ▪ 3 x Bel-Art rack (60 position x 16 mm OD) and 6 x rack overlays (for 16 mm OD tubes) 	
Note: Additional racks required should be ordered separately.	
Options for the SPS3	
Dust cover with purging/extraction facilities	0910245400
Purge kit for dust cover	9910120200
Sample racks and overlays:	
90 position x 13 mm OD (7 mL)	6610026400
60 position x 16 mm OD (13 mL)	6610025400
40 position x 20 mm OD (25 mL)	6610025500
24 position x 25 mm OD (38 mL)	6610026500
21 position x 30 mm OD (50 mL)	6610026600
Rack overlay for 40 position rack, 18 mm OD	6610026000
Rack overlay for 60 position rack, 16 mm OD	6610026100
Probe options – a range of chemically inert probes are available to suit your sample matrix	
0.8 mm ID PTFE sleeved probe	9910111900
1.0 mm ID PTFE sleeved probe	9910112000

Chemical Analysis Solutions

Laboratory gas chromatography systems



The 400 Series consists of two gas chromatographs and an associated range of analyzers and solutions designed for leading applications. These systems allow chemists and engineers to employ standard methods and/or high quality trace sample analysis, in the petrochemical, agrochemical and environmental industries.

The 450-GC is a highly affordable and powerful analytical instrument that offers robust operation in an easy-to-use package. The system gives users a broad choice of injectors, detectors, switching and sampling valves up to three channels. The high resolution color touch screen is intuitive and supports local languages. The Bruker 430-GC offers the same outstanding performance as the 450-GC but in a compact, single channel package that occupies about half the bench space of conventional multi-channel GC.

Triple quadrupole mass spectrometer

The Bruker 320-MS GC/MS stands at the forefront of configurable triple-quadrupole mass spectrometer systems. It offers: femtogram sensitivity, 10 – 2000 Da mass range, and a wide array of chromatographic and ionization configurations to uniquely match your needs - all in less than 72 cm. (28 in.) of linear bench space! In minutes, the 320-MS can be changed from EI to CI modes of operation. Easily, the 320-MS is the most sensitive, robust, and flexible triple-quadrupole MS system currently available.

For research use only.
Not for use in diagnostic procedures.



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