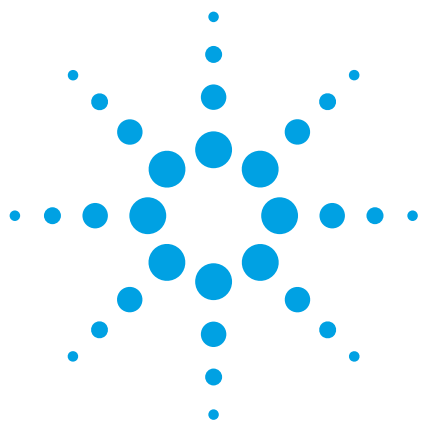




SPS 3 Autosampler

Fast. Compact. Flexible.

Technical Overview

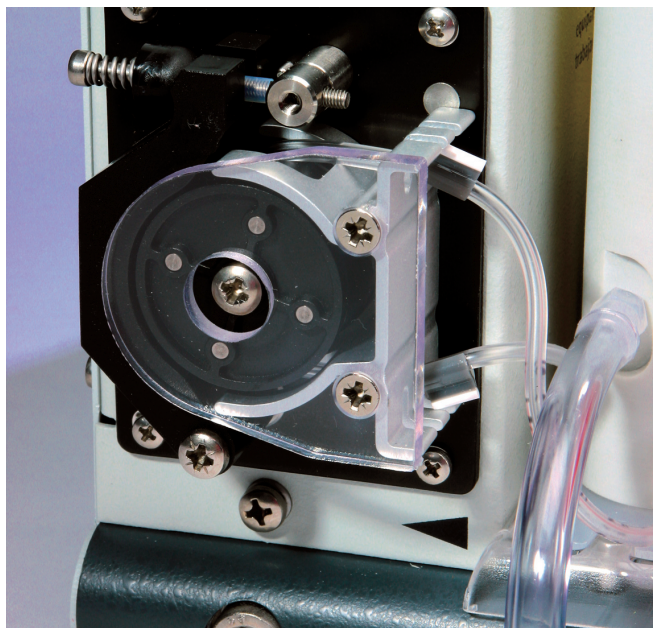


The SPS 3 Sample Preparation System, Agilent's fast spectroscopy autosampler, meets the diverse requirements of high-throughput analytical laboratories. It offers a range of productivity boosting features to decrease analysis times. Customize the SPS 3 with additional options to further improve the quality of analytical results and reduce running costs.



Benefits include

- Fast sample-to-sample speed provided by the novel arm movement
- Compatible with Agilent's full range of AA, ICP-OES, MP-AES and Cary UV-Vis-NIR spectroscopy products
- Unlimited sample capacity with the ability to exchange sample racks during analysis
- Compatible with a range of universal sample racks
- Reduces cross contamination and rinse usage with the on-demand, flow through rinse station
- Contamination-free liquid flow path, with inert probe options utilizing metal-free transfer lines
- Eliminates tedious and error-prone manual dilutions with optional off-line solution preparation
- Provides variable speed settings for samples with different viscosities
- Eliminates manual dilution and re-analysis of over-range samples with the optional on-line, over-range sample dilution capability
- Avoids settling or separation prior to analysis with optional sample pre-mixing
- Prevents sample contamination from airborne particles and removes corrosive or toxic fumes during sampling with the optional environmental enclosure



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

Flexible rack configuration

The SPS 3 is compatible with a wide range of low-cost, commercially available autoclavable laboratory racks or customizable sample racks. This provides flexibility in sample handling. The SPS 3 accommodates tubes from 90 x 13 mm to 21 x 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.

Use your own racks (available for AA and Cary UV-Vis-NIR only)

Simply define the location of the rack on the sampler and the layout of tubes in the rack. With a software wizard to guide you through the process, it's easy to take advantage of the flexibility of the SPS 3.

High-precision diluter option

Enhance your sample preparation system with the addition of Agilent's high-precision diluter option.

Eliminate time-consuming solution preparation

The Agilent SPS 3 with the optional diluter is a powerful tool for automated sample preparation, eliminating time-consuming solution preparation. With the optional RoboPrep dilution utility you can use the system for off-line sample dilution, reagent addition, and preparation of multi-element standards, including standard additions. Simply provide a rack of the required reagents and bulk standards. The SPS 3 will do the rest. The SPS 3 diluter also provides full programming flexibility over dilution parameters, including syringe speed and mix settings, enabling dilution of more viscous samples. In fact, whatever your application, with the SPS 3 and optional diluter you can dilute or prepare samples unattended — even overnight.

Perform online over-range dilutions during analysis (available for AA and ICP-OES only)

Agilent's on-line over-range sample dilution reduces pipetting errors and enables laboratory staff to focus on other tasks. The precision syringe-based design incorporates a sample holding loop to prevent sample from ever entering the syringe.

Sample pre-mixing (available for AA and ICP-OES only)

If your samples are prone to settling or separation, with the optional diluter, you can set the SPS 3 to pre-mix samples before analysis to improve accuracy.

Specifications

The SPS 3:

- is a high throughput autosampler with fast X, Z, theta arm movement
- optional diluter typically delivers < 1% dilution error and reproducibility that is better than 1%
- includes a built-in peristaltic pump for flow through rinsing with variable speed control
- uses RS-232 communications for communication. An RS-232 interconnecting cable is supplied
- can be used with an optional environmental enclosure, preventing contamination of samples from airborne contaminants and/or removing any corrosive or toxic fumes during sampling

Racks

The SPS 3 has the capacity for up to three sample racks and one standard rack (up to two standard racks for ICP-OES).

Racks may be exchanged during analysis for unlimited sample capacity. Any sample rack can also be used for standards.

The SPS 3 is supplied with:

- 2 standard racks suitable for use with either 11 x 16 mm OD test tubes or 6 x 29 mm OD centrifuge tubes
- 3 x 60 position sample racks suitable for use with 16 mm OD test tubes

Enhance your capability

Use the on-line diluter (optional) for pre-mixing of samples prior to sampling, or on-line over-range sample dilution. Prepare samples ahead of time with RoboPrep, the optional software for off-line sample dilution and preparation of multi-element standards and reagent addition.

Sample recovery (Cary UV-Vis-NIR only)

With the Sipper accessory and relevant Cary WinUV applications, enable 'Auto return' to recover your precious samples, saving you both time and money.

SPS 3 capabilities

Feature	AA	ICP-OES	Cary UV-Vis-NIR	MP-AES
Diluter (on-line)	•	•		
Custom racks	•		•	
Off-line dilution with RoboPrep	•	•	•	•
Auto return			•	
Environmental enclosure	•	•	•	•

• indicates supported

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