

SC Autosamplers

ESI SC-series Autosamplers

SC Autosamplers have been developed to improve throughput, reduce cross contamination, and improve flexibility. A full range of autosamplers are available to suit the needs of ICPMS and ICP-OES labs.

The combination of dual flowing rinse station and guide free sample probe have been proven to reduce blank contamination and sample carry over.

SC-Autosamplers can hold the widest range of both large standard racks and/or micro racks, accommodating vials ranging from 500 μ L micro tubes to 250mL bottles.

All SC-series Autosamplers Feature

Low cross contamination

- Teflon encapsulated carbon fiber sample probe, contour designed to reduce droplet formation
- Controlled probe retraction speed, eliminates droplet formation on probe
- Enhanced probe rigidity improves accuracy and removes need for probe guide
- Dual rinse station mimics best manual rinse procedure.

Rapid Movement

- Move Next sample feature
- Simultaneous linear / polar motion ensures rapid movement between samples
- X-Y-Z speed user controllable

Compact

- Smallest footprint per sample
- Maximum sample space utilized on the sample platform
- Short transfer capillaries from Probe to nebulizer.

SC-Prime



The SC Prime is a small, economical rotary micro-autosampler designed for laboratories with limited space or that analyze a small number of wide ranging samples.

SC-8105-000 SC-Prime, 3" arm

SC-8115-000 SC-Prime, 4.5" arm

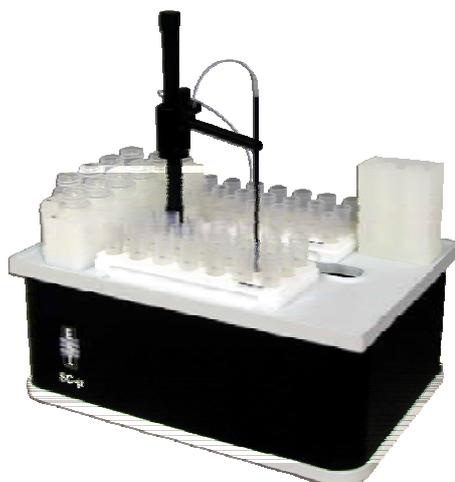
SC-Prime R²



This autosampler adds the functionality of a 90 position traditional AA rack to the SC-Prime autosampler. Ideal for running small volume high purity samples

SC Autosamplers

SC-Micro



The SC-Micro has all the high-purity features of the larger SC autosamplers in a compact design, making it ideal for low volume and ultratrace applications. The SC-Micro provides the smallest footprint to sample capacity of any micro-autosampler.

SC-8106-1000 SC-Micro, including remote control module

SC-E2



Using existing mounting points, the SC-E2 takes the place of the factory sample tray on the *ELEMENT2*, placing the autosampler directly beside the sample inlet while increasing work area. The entire tray and autosampler moves with the swinging door allowing easy access for cone maintenance.

SC-8103-1000 SC-E2 Autosampler for Element2

SC-2



The SC-2 provides a full-featured autosampler with a small footprint, making it ideal for labs with minimal bench space. It can hold up to 2 standard racks or 4 micro racks. Combinations of standard and micro racks are also possible in the same run. The SC-2 is ideal for laboratories with moderate sample loads and a variety of sample types.

SC-8102-1000 SC-2 Autosampler

SC-E4



The SC-E4 autosampler cleanly integrates with the Element2 HRICPMS, minimizing the distance between the sample vial and the nebulizer to reduce carry-over.

The SC-E4 tray includes space for alternate sample introduction systems, such as the Apex system, and provides space for sample staging.

SC-8113-1000 SC-E4 Autosampler for Element2

SC Autosamplers

SC-4



The SC-4 provides a full-featured autosampler with a small footprint, making it ideal for labs with minimal bench space. It can hold up to 4 standard racks or 6 micro racks. Combinations of standard and micro racks are also possible in the same run. The SC-4 is ideal for laboratories with moderate to high sample loads and a variety of sample types.

SC-8104-1000 SC-4 Autosampler

SC-14



The SC-14 provides unsurpassed sample capacity to ensure the longest unattended operation for overnight runs or even over weekend runs. It can hold up to 14 standard racks or 30 microtiter plates. The SC-14 autosampler is available either as a bench top or as a mobile autosampler with integrated cart. The SC-14 is ideal for laboratories with high sample loads.

SC-8114-1000 SC-14 Autosampler

SC-8



The SC-8 is the smallest eight-rack autosampler on the market. It is designed for laboratories that have limited space but need to improve efficiency through higher autosampler capacity.

The high-capacity SC-8 increases the length of unattended runs and reduces the time associated with reloading sample racks on smaller autosamplers.

The SC-8 is the only eight-rack ICP/ICPMS autosampler with immediate access to all eight racks. The SC-8 can be configured to hold up to 99 standard/QC vials.

SC-8108-1000 SC-8 Autosampler

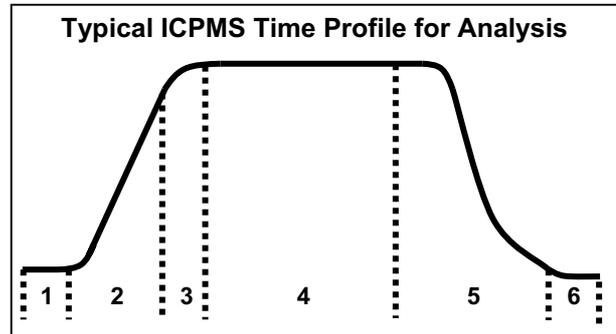
SC-FAST Sample Flow Injection

SC-FAST Flow Injection Option



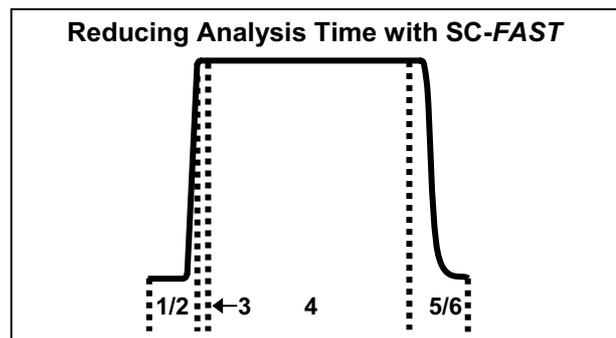
- Increase ICP productivity to over 75%
- Minimizes sample uptake and wash-out time
- Reduces stabilization time
- Throughput increased up to 2—3 fold
- Operates without alteration to analytical measurement time
- Add Hg to ICPMS methods without compromising throughput
- Reduces salt loading of ICPMS cones
- More effective rinsing between samples
- Eliminates sample contact with peristaltic pump tubing
- Full integration between SC-autosamplers and SC-FAST system

Analysis of an ICPMS Acquisition



In a typical ICP-MS acquisition most of the time is spent on non-productive steps, rinsing, uptake, stabilization, autosampler motion and ICP overhead/calculation time. Measurement (productive) time is typically only 20% to 50% of the analysis time.

Key: 1. Autosampler movement, 2. Uptake, 3. Stabilization, 4. Measurement, 5. Rinse, 6. Overhead



The SC-FAST increases instrument productive time to over 75% without compromising analytical performance. A seamless integration with ICP software and hardware ensures complete optimisation of **ALL** non productive time steps in an ICP acquisition.

SC-FAST upgrades

- SC-0500-02 SC-FAST upgrade for SC-2
- SC-0500-03 SC-FAST upgrade for SC-E2
- SC-0500-04 SC-FAST upgrade for SC-4
- SC-0500-03 SC-FAST upgrade for SC-E4
- SC-0500-08 SC-FAST upgrade for SC-8
- SC-0500-14 SC-FAST upgrade for SC-14

These upgrades to SC-Autosamplers include integrated vacuum pump and injection valve. It is highly recommended that a PFA-ST nebulizer is used to ensure rapid uptake and wash-out.

For guaranteed performance a complete application package is highly recommended.