

SASS 3100 Plus

Dry Air Sampler +
Particle Extractor

PLUS PRODUCTS: Combinations That Make Sense



**SASS 3100 Plus: Dry Air
Sampler PLUS Particle
Extractor**

A complete solution for your dry air sampling needs. Combines the high-efficiency of our SASS 3100 Dry Air Sampler with our SASS 3010 Particle Extractor. This combination provides you with the ability to collect airborne particulates, pathogenic bacteria and spores and then extract and collect the sample into a liquid form for analysis.

The Smart Air Sampler System 3100 (SASS® 3100) is a high efficiency dry filter sampler developed for the collection of airborne particulates, especially pathogenic bacteria and spores. It is digitally smart, remotely controllable, and supports

applications requiring a small, rugged low-power device equally comfortable in the arctic or desert. The system is fully portable and accepts both primary and rechargeable batteries.

A key component is the disposable snap on filter element. It is a 44 mm diameter felt-like polymer disc. Each fiber in the disc has an electric field frozen into it which induces a charge in aerosols passing through the filter and provides a capture mechanism much more effective than impaction and up to 50X more efficient than conventional glass or cellulosic filters. Particles with diameters in the range of 0.3 to 0.5 μm are captured with almost 50% efficiency by the disc, while particles of 1.0 μm diameter or larger are captured at 80% or better efficiency. This 'electret' media is stable to 70°C, is virtually inert, has a shelf life of 10 years, and a high holding capacity due to a large internal surface-to-volume ratio.

APPLICATION AREAS

- Pharmaceutical
- Medical facilities
- Public health
- Clean rooms
- Military
- Food processing
- UAV's (Unmanned Aerial Vehicles)
- Agriculture
- Indoor air quality
- Environmental
- Homeland security



Snap on electret filter.

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Specifications for SASS 3100 Dry Air Sampler

Characteristic	Description
Operating Principle	Electret dry filter media with high efficiency centrifugal fan (in excess of 30,000 operating hours).
Air Collection Rate	300 LPM typ. User adjustable 150 LPM to 350 LPM
Collection Efficiency	0.5 μm dia: 50%; 1.0 μm dia: 75%; 2.0 μm >dia: 90%
Operating Temp. Range	-40 to 70°C
Storage Temp. Range	-40 to 70°C
Humidity Range	All-weather. Optional rain shield prevents wetting of filter during rainy conditions.
Decontamination	Ethylene oxide, vapor phase hydrogen peroxide or 5% sodium hypochlorite solution.
Physical Size	<ul style="list-style-type: none"> • Filter Media: 4.4 cm diameter active filter in 6.0 cm diameter holder. • Overall case: 15 cm W x 17 cm L x 20 cm H.
Weight	1.80 kg; add 1 kg for battery
Power Source	<ul style="list-style-type: none"> • Primary battery; Extended life battery; Rechargeable battery; • AC/DC wall supply: 82-265 Volt (47-63 Hz).
Power Consumption	8.4 W (>24 hrs with primary battery;>20 hrs with rechargeable battery).
Connectors	Standard: DB-9. Optional: Military CCSI (additional cost)
System Controls	Microprocessor controlled.
Communications	RS-232 or optional BioLink for remote operation.
Sound Level	45-61 dB (A) at 1 meter; peak value at exhaust port
Package	EMI resistant, water-tight aluminum extrusion
Mounting	Standard ¼-20 camera thread on unit handle and base.

Specifications for SASS 3010 Particle Extractor

Filter compatibility	For use with SASS 3100 and SASS 4100 electret filters
Extraction method	Acoustic vibration of the fluid-saturated filter is followed by pneumatic and mechanical counter flow-driven discharge of the suspended aerosol particles.
Extraction efficiency	60-80% typical
Residue, run-to-run	1.1% with dry wiping, and 0.01% to 0.1% with a 5 ml flush
Extraction time	1 to 2 minutes, typical, with a flush cycle.
Extraction fluid	Pre-filled dropper bottle with buffered extraction fluid for a 4-10 ml sample (user specified).
Sample fluid storage	Extraction fluid bottle also used for fluid sample storage after extraction.
Physical size/Weight	15 cm W x 17 cm L x 20 cm H / 1.25 Kg
Electrical power	Two size "D" primary batteries.
Operating temp. range	0° C to 70° C

Research International reserves the right to change specifications without notice.

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