

World-Class Cyclonic Air Sampling Technology

Features

- Extended collection periods
- Liquid sample volume unaffected by ambient conditions
- User-specified automated protocols
- Onboard sample vial filling
- Wireless control option
- Threaded inlet and outlet ports
- Long-life primary and rechargeable battery options

Application Areas

- Medical facilities
- Public health
- Academic research
- Military
- Power plants
- Agriculture
- Indoor air quality
- Environmental
- Homeland security
- Mailrooms

The **SASS[®] 2300** is a highly efficient, portable multi-stage wetted-wall cyclone sampler that extracts particulates and water-soluble chemical vapors from air and transfers them to a liquid phase for later detection and analysis. This user-friendly sampler has been field-tested and used in subway systems, public health facilities, nuclear power plants, corporate mail rooms and poultry ranches. It has been proven to possess excellent collection properties.

Our patented technology can amplify trace aerosol concentration by extending the sampling time and the fluid monitoring system will maintain a fixed liquid volume in the device that is independent of collection time, air temperature or relative humidity. It is highly



automated, can be easily carried by a single person, and may operate unattended for extended time periods. The SASS 2300 was successfully used to capture COVID-19 in Wuhan, China, and has also been used to detect the airborne viral pathogens that cause exotic Newcastle disease and hoof-and-mouth disease* as well as some strains of avian flu virus. Furthermore, it was the only portable sampler technology to receive US Department of Homeland Security Certification under the US Safety Act of 2002.

* Journal of Veterinary Diagnostics Investigation, 17:198–200 (2005), Environmental air sampling to detect exotic Newcastle disease virus in two California commercial poultry flocks, Sharon K. Hietala, Pamela J. Hullinger, Beate M. Crossley, Hailu Kinde, Alex A. Ardans.

SASS® 2300 Specifications

Operating principle	Multi-stage wetted-wall cyclone with enhanced particulate collection.
Air collection rate	> 300 LPM using 30,000-hour life brushless fan.
Particulates collection range	0.5-10 µm. Contact Research International regarding vapor collection applications.
Concentration ratio	72,000/minute, nominal.
Liquid inventory	4-5 cc range, adjustable by user. Proprietary control loop maintains a constant liquid volume in the sampler, independent of collection time, temperature, or humidity; useful for concentrating trace airborne analytes.
Make-up water	1 liter on-board reservoir; supplemental off-board reservoirs may be used in fixed installations: 0.8 cc/min, typical evaporation rate at 20C/50% RH.
Physical size	18.4 cm x 21.3 cm x 34.3 cm (7.2" W x 8.4" D x 13.5" H).
Weight	3.7 kg w/o battery, 4.7 kg with battery (8.2/10.4 lbs). Add 1 kg (2.2 lbs) for 1 liter of water.
Air inlet	Industry-standard threaded adapter.
Humidity range	Non-condensing conditions.
Operating temperature	Above freezing conditions to 66°C.
Power source	BA-5590/U primary battery; or UBI 2590 15V rechargeable battery; or 82-265 Volt (47-63Hz) AC lump-in-cord power supply.
Power consumption	1.33 amps @ 12 V, 16 W.
Sample extraction	On-board 12 cc/min peristaltic pump, manual or remotely controlled. Vial filling module included. Air sampling may continue during extraction.
System controls	Microprocessor controlled. RS-232 or optional wireless link for remote operation or reprogramming. Additional TTL and motor drivers available.
PC interface software requirements	OS: Windows. Processor: 400 MHz Pentium or equivalent (Min.). RAM: 96 MB (Min.), 256 MB (Recommended). Hard Disk: 1.2 MB available space.
Sound level	70-75 dB(A). Lower level possible with sound attenuating accessories.
Package	Lightweight two-piece molded plastic shell with swivel-style carrying handle.
Decontamination	Auto-flush protocol using onboard water, or manual flush with detergent and/or disinfectant. Disposable fan module.
Accessories	Carrying case; inlet hose; 8cc sample bottles; rechargeable battery and charger.
Approvals	U.S. Dept. of Homeland Security certified under U.S. Safety Act of 2002.

CBRN International reserves the right to change specifications without prior notice.