

# SASS<sup>®</sup> 2300

## Wetted-Wall Air Sampler

COLLECT Airborne Pathogens, Virus-Sized Particulates, Bacteria and Spores



SASS 2300 Wetted-Wall Air Sampler

The SASS<sup>®</sup> 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 at a number of facilities including 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 is the only wet-type air sampler shown to efficiently collect virus-sized particles, and has been successfully 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.

For more technical information, visit [www.resrchintl.com](http://www.resrchintl.com).

\* 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.

### 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

SASS 2300 Wetted-Wall Air Sampler Specifications	
Characteristic	Description
<b>Operating principle</b>	Multi-stage wetted-wall cyclone with enhanced particulate collection.
<b>Air collection rate</b>	325 LPM using 30,000 hr. life brushless fan.
<b>Particulates collection range</b>	1-10 $\mu\text{m}$ . Contact Research International regarding vapor collection applications.
<b>Concentration ratio</b>	67,000/minute, nominal.
<b>Liquid inventory</b>	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.
<b>Make-up water</b>	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.
<b>Physical size</b>	18.4 cm x 21.3 cm x 34.3 cm (7.2" W x 8.4" D x 13.5" H).
<b>Weight</b>	3.7 kg without battery, 4.7 kg with battery (8.2/10.4 lbs). Add 1 kg (2.2 lbs) for 1 liter of water.
<b>Air inlet</b>	Industry-standard threaded adapter.
<b>Humidity range</b>	Non-condensing conditions.
<b>Operating temperature</b>	Above freezing conditions to 66°C.
<b>Power source</b>	BA-5590/U primary battery; or BA-5390/U extended life primary battery; or UBI 2590 rechargeable battery; or 82-265 Volt (47-63 Hz) AC lump-in-cord power supply.
<b>Power consumption</b>	1.33 amps @ 12 V, 16 W.
<b>Sample extraction</b>	On-board 12 cc/min peristaltic pump, manual or remotely controlled. Vial filling module included. Air sampling may continue during extraction.
<b>System controls</b>	Microprocessor controlled. RS-232 or optional wireless link for remote operation or reprogramming. Additional TTL and motor drivers available.
<b>PC interface requirements</b>	OS: Windows. Processor: 400 MHz Pentium or equivalent (Min.). RAM: 96 MB (Min.), 256 MB (Recommended). Hard Disk: 1.2 MB available space. CD-ROM.
<b>Sound level</b>	60 dB (A).
<b>Package</b>	Lightweight two-piece molded plastic shell with swivel-style carrying handle.
<b>Decontamination</b>	Auto-flush protocol using onboard water, or manual flush with detergent and/or disinfectant. Disposable fan module.
<b>Accessories</b>	Carrying case; inlet hose; 8cc sample bottles; sample bottles; rechargeable battery and charger.
<b>Approvals</b>	U.S. Dept. of Homeland Security certified under U.S. Safety Act of 2002
<i>Research International reserves the right to change specifications without prior notice.</i>	

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