

Comparison of SASS 2300 to SASS 2000 Plus

<u>Characteristic</u>	Description	
	SASS 2300	SASS 2000 Plus
Operating principle	Multi-stage wetted-wall cyclone with enhanced particulate collection.	Multi-stage wetted-wall cyclone with spray-enhanced particulate collection.
Air collection rate	325 LPM using 30,000 hr. life brushless fan.	325 LPM, nominal.
Particulates collection range	1-10 μm . Contact Research International regarding vapor collection applications.	1–10 μm
Concentration ratio	65,000/min., nominal.	70,000/min, nominal.
Liquid inventory	4-6 cc range, adjustable by user. Proprietary control loop maintains a constant liquid volume in the sampler, independent of collection time, temperature, or humidity.	Microprocessor-based fluid inventory system with proprietary sensor maintains constant amount of liquid in sampler. Recommended operating range is 2.8 to 5.0 cc. Set at Factory to ~ 4.0 cc. Continuously adjustable under computer control within recommended operating range.
Make-up water	1.3 liter on-board reservoir; supplemental off-board reservoirs may be used in fixed installations: 0.8 mL/min typical evaporation rate at 20° C/50% RH.	150cc on-board reservoir
Fouling resistance		Maintains level control with an Arizona Test Dust solution that has an optical density of 2 (i.e., 99% obscuration) at 650 nm.
Physical size	18.4 cm x 21.3 cm x 34.3 cm (7.2" W x 8.4" D x 13.5" H).	7.7" W x 8.5" D x 13.5" H (19.6 cm x 21.6 cm x 34.3 cm)
Weight	3.7 kg without battery, 4.7 kg with battery (8/10.2 lbs). Add 1.3 kg (2.2 lbs) for 1.3 liter of water.	5.8 lbs without battery, 8.0 lbs with battery (2.6/3.6 kg).
Air inlet connection	Industry-standard threaded adapter. It is recommended that third-party accessories have an airflow channel 2.54 cm diameter or larger.	Slip-over tube stub; 1.0/1.25" i.d./o.d. x 0.65" long (2.54/3.2 cm x 1.65 cm)
Humidity range	Non-condensing conditions.	Non-condensing conditions.
Operating temperature	Above freezing to 66° C, 150° F.	Above freezing conditions to 50° C.
Power sources	12-24 VDC BA-5590/U primary battery; BA-5390/U extended life primary battery; UBI 2590 rechargeable battery; 82-265 Volt (47-63 Hz) AC transformer for mains power.	100-240 Volt (50-60 Hz) AC lump-in-cord power supply: 15VDC. Will operate on supplies down to 12 VDC.
Power consumption	1.3 amps @ 12 V, 16 W. Auto shutdown on low battery voltage.	System power with blower off= 55 mA; With blower On =0.925A @ 12-15 V.
Sample extraction	On-board 12 cc/min peristaltic pump, manual or remotely controlled. Vial filling module included. Air sampling may continue during extraction.	Peristaltic pump under manual or remote computer control. 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.	On-board microprocessor-based fluidics package; RS-232 for remote operation.
Sound level	60 dB (A).	70 dB (A)
Package	Lightweight two-piece molded plastic shell with swivel-style carrying handle.	Lightweight, two-piece, molded plastic shell with top-mounted carrying handle.

Decontamination	Auto-flush protocol using onboard water, or manual flush with detergent and/or disinfectant. Disposable high-performance pull-through fan module.	Auto-flush protocol using onboard water, or manual flush with detergent and/or disinfectant. Disposable high-performance pull-through blower module.
Accessories	Carrying case; inlet hose; inlet screen; sample bottles; rechargeable battery and charger.	Carrying case; dropper vial fill module; dropper vial holder; and inlet filter blank-off plate (for directing air through the tube stub).
Approvals	U.S. Dept. of Homeland Security certified under U.S. Safety Act of 2002	

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