



## The Macro to Micro Interface

### SpinCon<sup>®</sup> Advanced Air Sampler

The SpinCon is a portable and energy-efficient wet concentrator air sampler. Tested and proven in user sponsored tests, it is ideally suited for the collection of bioaerosols, particulate matter, and soluble vapors, including submicron-sized particles, airborne molecular contamination, biological particulates, and volatile and semivolatile chemical compounds. The system has been developed to address a broad range of advanced air sampling requirements and is rapidly becoming the gold standard for collecting large quantities of airborne pathogens, including anthrax, foot and mouth, citrus canker, avian influenza, mold, and many others.



#### The Gold Standard —

**High collection rate makes the SpinCon suitable for almost any sampling task**

The SpinCon samples air at a rate of 450 L/minute. It can be operated in either single sample or continuous monitoring mode. The SpinCon can sample any level of target in the air and achieve sample concentrations that can be analyzed, making it suitable for virtually any air-sampling task. This capacity is made possible by combining a high sampling rate with the ability to concentrate the analyte in a small volume of liquid, aided by high collection efficiency and the ability to vary sampling time. Because of its patented wet concentrator design, the SpinCon can achieve a highly concentrated sample of particulates that wet cyclone designs cannot achieve, dramatically increasing the probability of detecting a hazard. And because it is not an impinger, it is far less likely to damage or destroy spores in the collection process, a factor which may be critical if confirmatory cultures are required.

#### Unsurpassed Sample Collection and Concentration —

**Validated by independent testing agencies**

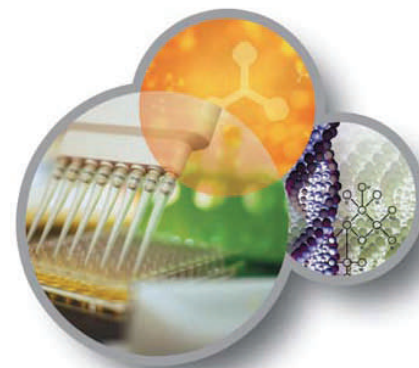
Data collected by research laboratories and the U.S. military, from both indoor and outdoor environments, show the SpinCon to be superior to other commercial air samplers. It produces a higher concentration of the target analyte in a significantly shorter time. The concentrated liquid sample collected by the SpinCon is ideal for use with most detection technologies and platforms. Validating data show that the SpinCon efficiently collects and concentrates, in a liquid medium, micron and submicron bioaerosol particles, such as molds, pollen, fungi, bacteria, viruses, and bacteriophages.

It also has proven successful in capturing a wide variety of compounds, including low and moderate vapor-pressure chemical compounds.

#### Attributes of the SpinCon

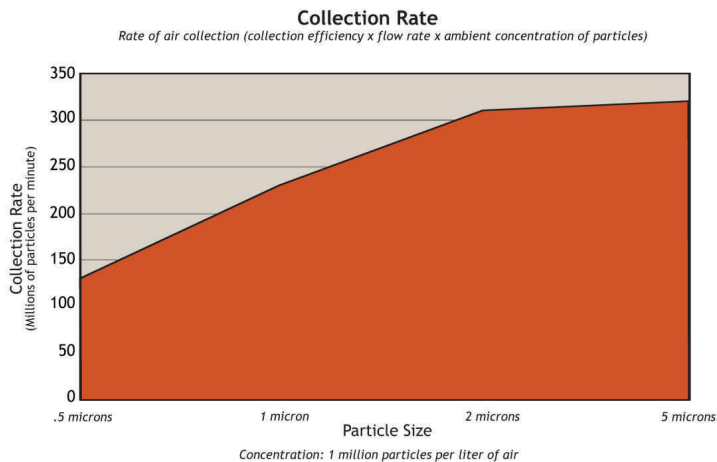
**High collection efficiency and particularly high collection rate —** The very high flow rate of 450 L/minute, when coupled with high collection efficiency across a very broad range of particle sizes, gives the SpinCon superior collection rates. The ability to vary sampling time makes it the ideal choice for both intermittent and continuous monitoring application.

**Ability to concentrate and retain particles in solution —** The ability to concentrate and keep particles in the sample makes it possible to achieve sample concentrations of the target many times higher than what is in the air. This allows the SpinCon to produce samples that are well within the detection limits of most sensitive detection devices, even if the agent sought is in low ambient concentrations.



## Very broad range of particle sizes captured

The SpinCon is designed to capture the widest range of bio aerosols, particulate matter, and soluble vapors. The patented cyclonic function of the SpinCon allows it to collect particles down to 0.2 microns (submicron) and even trace vapors from explosives.



## Proven technology with excellent reliability

The SpinCon is currently used in several military applications, in mailrooms and offices, a major urban biodetection system, laboratories, clean rooms, and event monitoring. It has shown superior performance and reliability in multiple environments. It is the machine of choice for both of the prime contractors competing for the biodetection system for the U.S. Postal Service. SpinCon performance has been verified at Dugway Proving Grounds, Plum Island, Aberdeen Proving Grounds, Battelle Labs, Lawrence Livermore Labs, Midwest Research Institute, and several major universities. With a history of successful deployments, the SpinCon is an excellent selection for any air sampling need.

## Markets for the SpinCon

### Government

- Combat Environments
- Department of the Treasury  
Customs  
Mint
- Department of Defense
- Federal Buildings
- Federal Reserve
- First Responders
- Military Bases
- Naval Vessels
- National Guard
- USDA and Agriculture  
Citrus Canker detection  
Foot and Mouth detection
- Clean Rooms
- Corporate  
Headquarters  
Mailrooms  
Office Buildings
- Cruise Ships
- Sea Borne Containers
- Food Industry
- Grain Elevators
- Hotels and Convention Centers
- Malls
- Municipal and Urban Protection Rings
- Post Offices

### Civilian

- Airports
- Railway and Subway Stations
- Banks and Financial Institutions
- Broad Area Protection
- Schools and Universities
- Stadiums and Sports Arenas
- Theme Parks
- Tourist Attractions

## Specifications:

Power requirements:	120 VAC or 12/24 VDC
Power consumption:	450-500 W
Flow rate:	450 L/min.
Size:	18" x 15" x 8"
Weight:	46 lbs.
Sampling time:	Selectable between five minutes and six hours
Operating temperature range:	2° - 50° C (36° - 120° F)
Sample size:	10 mL
Portability:	Easily transportable in protective carrying case
Sample extraction:	Automatic into sample bottle Features bottle presence detection
Sampling Solution:	Water or PBS. Please consult factory if your application requires a custom solution
Controls:	Integral control with LCD status display; sample, rinse, sample time, and manual extract and inject controls
Decontamination:	Exterior surfaces can be wiped with dilute bleach solution; fluid lines and contactor can be flushed with bleach solution followed by rinses with sterile water

## The SpinCon® Advanced Air Sampler is supported by:

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