

CORIOLIS® MS

New generation tactical biological air sampler

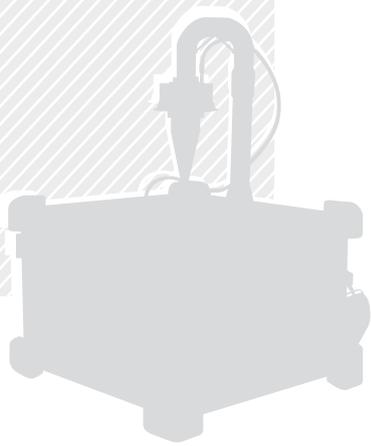
FEATURE HIGHLIGHTS

- Bio-aerosols capture like anthrax, plague, etc.
- Liquid sample
- High air flow rate, long time monitoring
- Sample thermostatzation
- Ergonomic and ruggedized design for field operation
- Portable and quick deployment
- Easy to decontaminate and sterile consumables

Coriolis® MS is a ruggedized bio-aerosol sampler, dedicated to area surveillance, in open field military conditions.

It has been designed to collect large concentrations of aerosols in the breathable range of 0.5 to 10 microns, thus being more representative of the environment than typical bio-aerosol samplers (high air flow rate).

Once the sample is collected, the user removes the vial for subsequent analysis (immuno-assay, PCR, culturing).



GENERAL DESCRIPTION

Coriolis® MS offers flexibility with a choice of operating modes:

- *Autonomous point of care sampling*: this mode, triggered by the operator wearing IPE (Individual Protective Equipment), can be used by first responders or for mobile applications to rapidly obtain a sample and identify the biological threat (ideally with the **KIM**).
- *Long time collection*: for the surveillance of a critical event, the long time collection mode (until 6 hours) can be used, to collect a sample that is fully representative of a given period of time.
- *Biological beacon mode*: for a long term surveillance (several days), **Coriolis® MS** can be set up in a standby mode, waiting for an order of a warning system, ideally the **MAB**.

Coriolis® MS uses consumables:



A 500 ml collection liquid flask



A collection unit

SPECIFICATIONS

Specifications	Coriolis® MS
Application	Surveillance of critical area
Principle	Wet cyclone
Collected particles size	> 0.5 µm
Air flow rate	360 LPM to 630 LPM
Collection time	Up to 6 hours
Liquid sample	Up to 20 ml
Power requirements	- Battery (NiMH): 24 VDC or truck battery - Main supply: 220 VAC
Sample preservation	Yes
Liquid injection	Yes
Watertight	Yes
Weight	16 kg
Dimensions	460 x 460 x 332 mm
Operating temperature	+5°C to +45°C

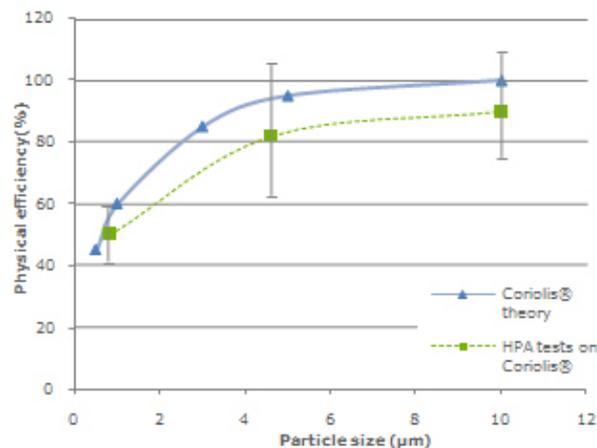


PRINCIPLE

Coriolis® MS air sampler is based on a wet cyclone: it collects high volumes of air and concentrates the aerosols into a liquid sample, adequate for all types of analysis (immuno-assay, PCR, culture, smart tickets, etc.)

BIOLOGICAL QUALIFICATION

Biological efficiency of Coriolis® technology evaluated at the HPA (Health Protection Agency) – Porton Down



Coriolis efficiency has been evaluated by many organisms, in particular the CEB (Centre d'Etudes du Bouchet - France) and the HPA (Health Protection Agency - UK).

According to ISO 14698-1 annex 1, the biological efficiency of the Coriolis sampler, when compared to the standard low volume Casella slit sampler, was found to be 78% when using the aerostable E.Coli MRE162 strain (HPA).

Reports available from international independent and recognized laboratories on demand.

