Bertin Technologies - Coriolis FR

GENERAL DESCRIPTION:

Coriolis® FR is a bio-aerosol sampler, dedicated to first responders, with quick deployment in case of an event with biothreat suspicion. Coriolis® FR is efficient, light and has been ruggedized for use in indoor and outdoor environments.

Based on a wet cyclone, it has been designed to collect a large wide of aerosols from 0.5 to 20 µm into a liquid sample, for a rapid identification of pathogens (anthrax, botulinum toxin, ricin, etc.).

TECHNICAL DESCRIPTION:

Coriolis FR uses proven wet-wall cyclone technology for collection of all biological air content. This technology enables both high flow rate (300 liter per minutes) and high collection efficiency (third party evaluation available).

First, the operator pours the sterile collection liquid in the cone and screws it on the air inlet. When triggered by the operator, the air is drawn in a whirling motion to form a vortex. Particles are pulled against the wall due to centrifugal force, separated from air and concentrated into the liquid. After 10 minutes, the concentration of particles in the collection liquid is sufficient for reliable downstream analysis. Cone can be easily disassembled and closed (single-use). The system is ready for the next sampling without any cross contamination.

CONTACT INFORMATION

Bertin Technologies
POC: Antonin Duval
240-428-1047
duval@bertin-corp.com

COST

- $12,530/system
- $20/analysis

Tier Selection

Final tier assignment is based on overall product score.

Top Tier Second Tier Third Tier Fourth Tier Bottom Tier

RANKINGS

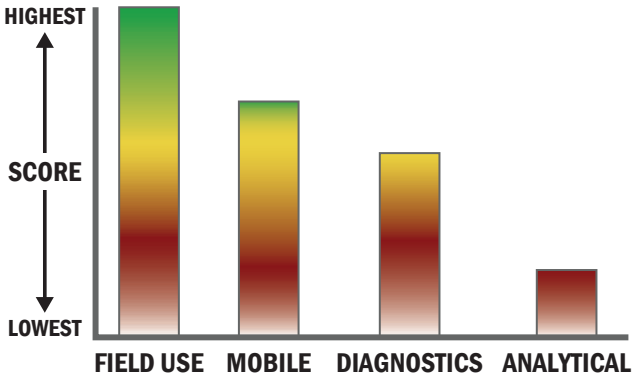
	Biological	Chemical	Radiological
FIELD USE System	Fourth Tier	N/A	N/A
MOBILE Laboratory	Bottom Tier	N/A	N/A
DIAGNOSTIC Laboratory	Bottom Tier	N/A	N/A
ANALYTICAL Laboratory	Bottom Tier	N/A	N/A

Survey Source

Vendor Supplied Information

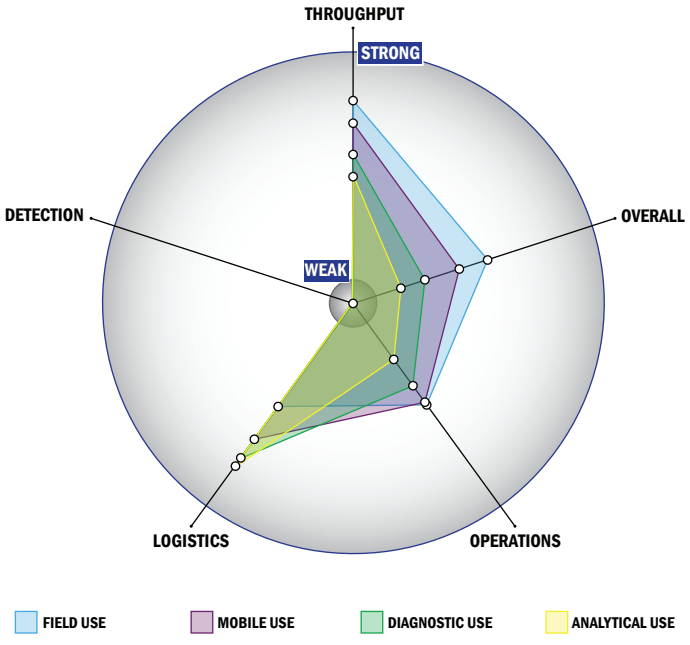
Scoring Analysis

System scores are compared across the four scenarios and ranked from highest to lowest.



Impact Chart

The Impact Chart is a spider graph representing specific categories and designed to give the reader a visual depiction of how a particular system is expected to operate across the four different scenarios. The score for each of the seven categories is presented as the percentage of the total possible score. Higher category scores extend the spokes of a graphic toward the outer edge of the chart. The area graphed for each of the four scenarios relates to how well the system performed in that scenario. Graphics for each of the four scenarios are super-imposed for ease of comparison.



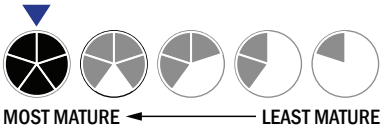
Evaluation Criteria

Throughput:

- Between 2 and 15 minutes for detection
- 1 sample, single test/sample per run
- Less than 32 samples every 2 hours
- The system or device is currently semi-automated
- Device or system is intended for multiple detection assays
- 0-1 solutions, buffer, eluents, and/or reagents
- 1 component
- Less than 5 minutes is required for set-up
- 1-2 steps are required for detection

Logistics:

- Very brief (minutes-hours) training and minimal technical skills
- Approximately the size of a carry-on luggage suitcase
- Between 5 and 25 kg
- This system is not capable of transmitting data
- 1-2 hours battery life



Operations:

- Can be used from 4°C to 41°C
- Components must be stored at room temperature (27°C)
- Performance is not influenced by relative humidity
- Between 1 to 3 years shelf life
- Greater than 10 years expected life
- The system or device is currently fully autonomous
- The system software is closed and not available for modification
- The system hardware is closed and not available for modification

Detection:

No detection information available