

# PROENGIN SAS - MAB



## GENERAL DESCRIPTION:

MAB has the unique capacity of detecting and categorizing biological particles with a proven extremely low false alarm rate and the unique capacity to discriminate dangerous or suspicious biological particles.

MAB has been designed for use on the field by Armed Forces to give early warning about any kind of Biological Warfare Agents event. MAB gives instantaneous information about incoming biological event thus telling when to take a sample and make further analysis to confirm the presence and nature of biological agent. The very liable MAB has also been designed to be mounted on track vehicles.



As all Proengin products and thanks to the flame spectrophotometry technology, MAB is running in very severe outside conditions, shows the lowest false alarm rates (negative and positive) and requires reduced maintenance. It shows such a high level of availability.

## TECHNICAL DESCRIPTION:

MAB biological detection is based upon Flame Photometry Detection (FPD), detection of the physical signature of the chemical atoms and bonds within the products and compounds. More precisely, MAB takes the air in, burns all gas and particles in it and provides energy to the electrons that get onto upper levels of energy. When these electrons go back to their standard energy levels, they emit the consequent energy by emission of a photon (light). MAB immediately detects and analyses this light. This is the way MAB detects and calculates all particles containing the precise ratio of components, this being a signature for biological particles.

This technology (FPD) is sensitive, reliable, not sensitive to humidity, temperature or mixture of compounds. MAB requires no service and nearly no maintenance. MAB remains operational after a positive detection. MAB offers the most reliable information on the field, not being lured by fluorescent or same size particles, with the best on field reliability.

## 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
<b>FIELD USE System</b>	○	N/A	N/A
<b>MOBILE Laboratory</b>	◐	N/A	N/A
<b>DIAGNOSTIC Laboratory</b>	◐	N/A	N/A
<b>ANALYTICAL Laboratory</b>	●	N/A	N/A

## CONTACT INFORMATION

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## Survey Source

Vendor Supplied Information

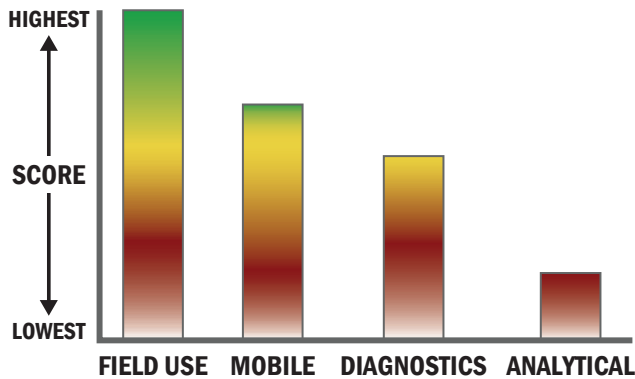
## COST

N/A



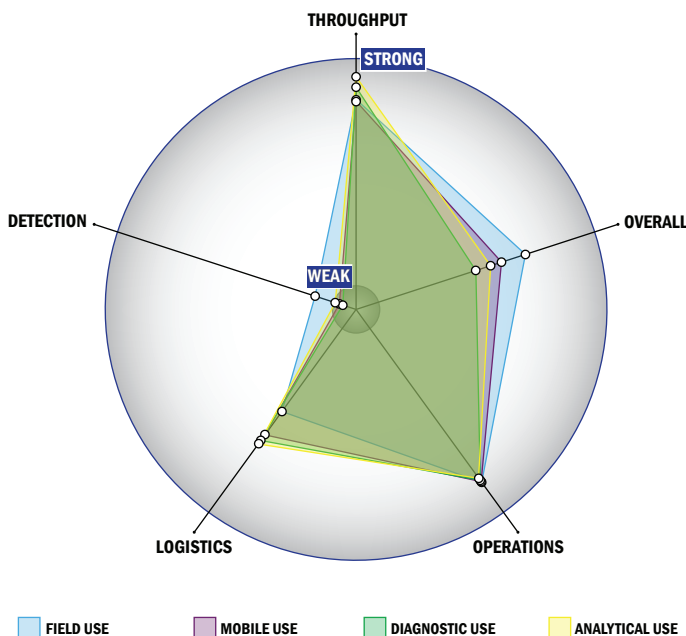
## Scoring Analysis

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.



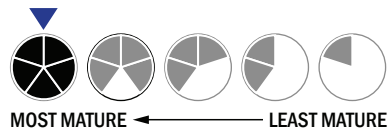
## Evaluation Criteria

### Throughput:

- Detection is instantaneous
- Continuous operation with no defined runs
- System is continuous and provides real time analysis with no defined tests/samples
- The system or device is currently fully automated
- Device or system is intended for multiple detection assays
- 0-1 solutions, buffer, eluents, and/or reagents
- 0 components
- 5-10 minutes is required for set-up
- Automatic detection

### Logistics:

- A day of training and technical skills are required
- Approximately the size of a carry-on luggage suitcase
- Between 5 and 25 kg
- Wired connections are available
- System or device has 220V electrical requirement



### Operations:

- Can be used from 4 °C to 41 °C
- Performance is not influenced by relative humidity
- Greater than 10 years expected life
- Results can be viewed in real-time
- 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:

- Possible the system could receive 510K clearance, no current efforts at this time
- Possible the system could receive FDA approval, no current efforts at this time
- This system does not test liquids
- Superior specificity. System has a false alarm rate approaching zero (~0%)