

# MOBILE DETECTION SYSTEM



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Baltic Scientific Instruments (BSI) is an OEM manufacturer based in Riga, Latvia, dedicated to the development and production of advanced spectrometric and detection equipment. With decades of experience and roots in the former Research Institute for Radioisotope Apparatus (RNIIRP), BSI provides cutting-edge technologies for nuclear power, environmental monitoring, security, medicine, and scientific research.

The company specializes in HPGe, Si, CdZnTe/CdTe, and scintillation detector systems, known for their accuracy, stability, and performance in demanding analytical environments.

Through continuous innovation, strict quality assurance (ISO 9001:2015), and strong international collaboration, BSI supports customers worldwide in achieving precise and reliable radiation measurement and analysis.

## Product offering

### Mobile Radiation Monitor GammaCART



## Mobile Radiation Monitor GammaCART

### Application

Mobile spectrometric system Mobile Radiation Monitor is designed to measure gamma radiation energy distribution, identify gamma emitting radionuclides, as well as calculate specific and surface activity of gamma emitting radionuclides under conditions of their natural occurrence and at nuclear industry premises. In addition, the system can be used for radiation monitoring, e.g., for examination of large areas, searching lost or stolen gamma radiation sources, study of radionuclide precipitation near radiation hazardous sites without preliminary sampling.



### COMPLETE SET

- Electric vehicle as a mobile platform
- Gamma radiation spectrometer containing:
  - Gamma radiation detector(s);
  - Multichannel channel analyzer Polynom;
- Thermostabilization system (for NaI(Tl) or LaBr<sub>3</sub>(Ce) detectors) containing:
  - Thermostabilizing housing with a built-in heat exchanger
  - Cooling and heating system box;
  - Hoses for circulation of the cooling liquid;
- Navigation system including a external antenna;
- Shockproof toughbook operable in harsh conditions;
- Router with antenna which provides connection between the analyzer, navigation system and toughbook;
- Fixation and positioning system for the detection units;
- Charger for the electric vehicle.



**ASTROPHYSICS™**

Astrophysics Inc. delivers state-of-the-art X-ray inspection systems that play a critical role in safeguarding healthcare environments. Their technology is used in hospitals and medical facilities to screen incoming goods, equipment, and waste for concealed threats, enhancing overall safety and regulatory compliance.

## Product offering

**XIS-MINIVAN -  
Astrophysics**



**XIS-TRAILER -  
Astrophysics**



**XIS-TRUCK -  
Astrophysics**



## XIS-MINIVAN – Astrophysics

The XIS-Minivan is the newest model in the XIS-Series Mobile Screening product line featuring a tunnel size of 100 cm x 100 cm. With an even smaller vehicle profile than the XIS-Van, the XIS-Minivan is the mobile screening solution suited for areas where space is limited, but the need for security is absolute.



The XIS-Minivan mobile screening vehicle features unmatched standards, including a high-powered 180kV generator, Air Conditioning and Exterior Lighting. The XIS-Minivan requires minimal set-up time and features a more compact vehicle with a large tunnel for diverse object screening at any locale.

### General Specifications XIS-MINIVAN

- **Tunnel Size (W x H):** 100 cm x 100 cm
- **Dimensions (L x W x H):** 604 cm x 202.4 cm x 277 cm
- **X-ray Generator:** 180kV, Operating at 165kV

## XIS-TRAILER - Astrophysics

The XIS Trailer has a tunnel size of 100 cm x 100 cm and is the ideal solution for flexible screening. It has durable aluminum walls and roofing on a custom steel frame construction. The XIS Trailer is suitable for both indoor and outdoor applications.



Significantly, this mobile screening vehicle is the first in its class in terms of standard equipment. The XIS Trailer is equipped with a powerful 180 kV generator, air conditioning, exterior lighting and uninterrupted power supply.

The XIS Trailer offers a mobile solution for security gaps and has extensive standard facilities and an enlarged tunnel for more diverse screening.

### General specifications XIS TRAILER

**Tunnel size (W x H):** 100 cm x 100 cm

**Dimensions (L x W x H):** 623.8 cm x 228.6 cm x 352.2 cm

**X-ray generator:** 180 kV, operating at 165 kV

## XIS-TRUCK - Astrophysics

With a tunnel opening of 101.6 cm x 81.4 cm, the XIS-Truck can screen diverse parcels, baggage and cargo for explosives and contraband. The XIS-Truck is designed for outside events, border checkpoints, and various mobile screening needs.



The X-ray system is custom built into a Ford F-450 Super Duty Truck complete with cabin air conditioning, a 6.2L V8 engine and the Ford Personal Safety System.

The XIS-Truck features a high performance vehicle, a state-of-the-art XIS system, extended conveyor belt, and custom retractable awnings and built-in Monitor Stand for fast and convenient screening.

All Astrophysics X-ray Inspection Systems are equipped with Real-Time Diagnostics, a unique Astrophysics feature which allows users to monitor system health. This software was specifically engineered to save you valuable time and money. If requested, Astrophysics would also be able to connect to your system and troubleshoot any issues remotely.

An exclusive Astrophysics option is our 6 Color Imaging, which enables operators to view screened objects in 6 colors, each color correlating to a specific range of Atomic Z-Numbers. 6 Color Imaging enables operators to achieve optimal material identification which improves throughputs.

### General Specifications XIS-TRUCK

- **Tunnel Size (W x H):** 100 cm x 100 cm
- **Dimensions (L x W x H):** 724 cm x 243.8 cm x 342.3 cm
- **X-ray Generator:** 180kV, Operating at 165kV