

NUCTECH™ FS6000(BX)

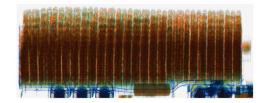
Fast-Scan Cargo/Vehicle Inspection System

The NUCTECH™ FS6000(BX) Fast-Scan Cargo/Vehicle Inspection System is a multi-view and dual-energy fast-scan inspection system that is designed for high traffic flow security checkpoints. The system allows the driver to drive through the scanning tunnel directly and achieve non-stopping, non-intrusive inspection of trucks, cargo containers, empty containers and container inter-layer. The system utilizes multiple imaging technology hence provides more comprehensive image information of scanned objects — X-ray transmission technology for offering higher penetration , and discriminating organic, inorganic and mixed materials, backscatter imaging technology for increasing the efficiency and accuracy of organic threats and contraband screening.









→ Multi-view Inspection

The Inspection System generates one side-view transmission image and multi-view backscatter images which can help image analyst quickly locate the suspicious objects, or to verify the quantity of the goods. Up to three side-view backscatter modules can be installed as customization.

→ Material Discrimination

The Inspection System adopts dual-energy X-ray imaging technology to discriminate organic, inorganic and mixed materials. Different materials are marked with specific colors, which helps in identifying the contraband and dangerous goods concealed among cargoes or hidden in the vehicle.

→ Multi-function Integration

The Inspection System can be integrated with various auxiliary devices including License Plate Recognition (LPR) System, Container Code Recognition (CCR) System and etc., hence providing comprehensive information of the goods under inspection. The surface spray disinfection device for cargo/vehicle can also be installed upon request.

→ Backscatter Imaging

Backscatter imaging can highlight low atomic number materials (e.g. explosives anddrugs), which helps the analyst to find the contraband and dangerous goods concealed in the vehicle.

→ High Throughput

Benefiting from the patented vehicle identification technology, the driver can stay in and drive the vehicle through the scanning tunnel to complete the inspection. The system will avoid radiation exposure at the driver cab and scan only the cargo part automatically.

→ Reliable Radiation Safety

The Inspection System is designed with the safety of public and operators as paramount importance. It is equipped with safety devices including CCTV, PA, safety interlocks, etc. All the radiation protection criteria are met and in conformity with the relevant standards recommended by international organizations such as IAEA, ICRP and WHO.

Technical Data

| | Transmission module | Backscatter module |
|--|---|---------------------------------|
| Type of X-ray source | Interlaced Dual-energy Electron Linear Accelerator | X-ray Tube |
| X-ray energy | 6/3 MeV | 225 keV |
| Material discrimination function | Organic, inorganic and mixed material can be discriminated and marked with specified colors | Organic material is highlighted |
| Penetration | 340 mm steel | 6 mm steel |
| Max. Dim. of scanned vehicle | 20.0 m (L) $	imes$ 2.6 m (W) $	imes$ 4.6 m (H) | |
| Scanning method | The driver drives the vehicle through the scanning tunnel and the system operates automatically | |
| Scanning speed | 5 km/h | |
| Throughput | 100 units of container vehicles per hour | |
| Power consumption | ≤ 60 kVA | |
| Operation temperature | -20°C - +50°C | |
| Humidity range | 0% - 95%, non-condensing | |
| Average dose rate on the system boundary | ≤ 0.5 µ\$v/h | |
| Absorbed dose to cargo per scan | ≤10 µSv | |
| Absorbed dose to driver per scan | ≤0.2µSv | |
| Zoom | 1/2x - 32x | |
| Number of operators | 3 | |



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