BV M.A.X.

MATTRESSES AND INMATES'
PERSONAL PROPERTY MOBILE
X-RAY INSPECTION SYSTEM

TRANSMISSION X X-RAY TECHNOLOGY

A-EYE SECURITY

KEY FEATURES

The automatic detection of the most common contraband

Automated inspection process

Compactness

The fault-tolerant configuration of the acquisition/analysis workstation

Perfect image quality

Quick start-up and shutdown

Real-time self-diagnostics

The BV M.A.X. is a compact, relocatable conveyor-type X-ray screening system for the fast, effective and contact-free inspection of mattresses 33.46" wide and inmates' personal belongings.

Due to its compact design and special wheels, the BV M.A.X. can easily be relocated and deployed wherever security inspections are needed. The BV M.A.X. will fit through standard interior doorways.

This highly versatile tool is the first system in the market that has been specifically designed to address the problem of contraband being concealed in mattresses. It can be delivered directly to cell blocks or dormitories to assist in the inspection process. Its design means that there is no need to fold mattresses for them to fit into the X-ray inspection system. The BV M.A.X. also has standard baggage scanner functionality and so is able to inspect mail and personal property.
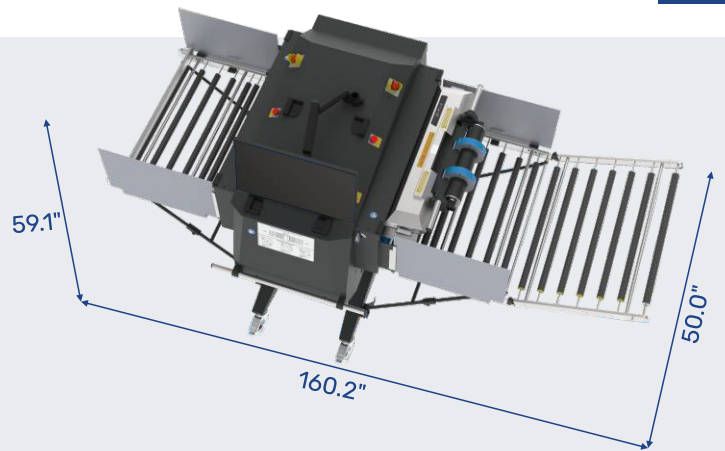
BV M.A.X.

FUNCTIONS

- The automatic detection of the most common contraband
- Automatic selection of suspicious objects (such as explosives, drugs, Impenetrable areas) using Zeff and optical density
- Bi-directional scanning
- Secure login
- Multi-level user access with the ability to administer users, roles and access level
- Automatic diagnostics of the System and individual units performance
- Automatic warming up of the X-ray generator during prolonged idle time (no warming up is required during daily operation of the System)
- Automatic storage of X-ray images in the archive
- Baggage counter
- Display of date and time, unit serial number and operator ID
- Multilingual interface
- Formation of service reports of the System
- Inversion of colours
- Black and white display mode
- Edge enhancement
- Display only organics and inorganics
- Adjustable gamma correction
- Contrast optimization
- Display organic objects with atomic numbers Z7, Z8, Z9
- Display of substances with atomic numbers from the selected range
- Display of substances in accordance with the selected range of optical density
- Zooming in on images up to 96x
- View archive images

Examples of Images with Automatic Threat Detection by the AI Software System

59.1" **50.0"** **160.2"**

GENERAL SPECIFICATIONS

DIMENSIONS

TUNNEL DIMENSIONS	
width	34.3 in
height	9.5 in
OVERALL DIMENSIONS (MAX)	
width	50.0 in
height	59.1 in
length	160.2 in
length (folded state)	31.9 in
WEIGHT (MAXIMUM)	926 lbs

CONVEYOR BELT

Maximum distributed load on the conveyor belt	55.1 lbs
Conveyor height	33.2 in
Conveyor speed	43.3 ft/min]

X-RAY SOURCE

Anode voltage	100 kV
Beam direction	Vertically upward

X-RAY DETECTOR

Detective ability for copper wire	0.08 mm (40 AWG)	
Penetration on steel	14 mm guaranteed	16 mm typical
Spatial resolution, line pairs per mm	1.0 in the direction of scanning	1.0 along the detector

POWER SUPPLY

Line voltage	110-240 VAC
Line frequency	50/60 Hz
Power consumption	Max 0.5 kVA

ENVIRONMENTAL REQUIREMENTS

Operation/ Storage:	
- Ambient temperature	32 °F to 104 °F
- Maximum relative humidity	Up to 90%, non-condensing