

# B-SCAN™ 16HR-LD 250

## TRANSMISSION X-RAY PEOPLE SCREENING TECHNOLOGY



### Feature Highlights

- **Detects objects concealed internally in or externally on the body.**
- **Contraband and threat detection including: weapons, explosives (plastic and powder), detonators, narcotics, electronic devices, diamonds, precious stones/metals and mobile phones.**
- **High throughput – scan time less than 7 seconds.**
- **Complete head to toe inspection in one short inspection cycle.**
- **State of the art image processing software and zoom functions facilitates efficient image evaluation.**
- **Very low dose rate <0.25µSv/inspection – suitable for general use applications.**

B-SCAN™ uses transmission x-ray technology employing very low dose rates to screen people. This non-intrusive approach to people screening enables the detection of objects concealed internally in body cavities, on a person beneath clothing, or in artificial limbs.

The 16HR-LD model of B-SCAN™ uses a dose of less than 0.25µSv per inspection which allows it to be used for general use applications under the ANSI and NCRP guidelines.

The B-SCAN™ system is used to detect contraband and threat objects in applications including prisons, customs, border crossings and aviation security checkpoints.

The B-SCAN™ produces a high resolution head to toe whole body image of the person under review in a single pass.

This high resolution image and image enhancement tools allows the operator to accurately and quickly evaluate the image.

Using specially adapted image processing software B-SCAN™ provides security checks of unequalled quality.

B-SCAN™ uses state of the art safety systems to monitor the radiation generation and dose.

With over ten years of field experience B-SCAN™ is proven as a well engineered and reliable screening system.

# Technical Data **B-SCAN 16HR-LD 250**

## Function

|                            |  |
|----------------------------|--|
| Material detected includes | Metal, ceramic, plastics, powders, explosives, narcotics |
| Detection capability       | Objects hidden internally and externally on the body     |
| Type of scan               | Full body scan in one inspection pass                    |
| Primary function           | Screen people for contraband and threats                 |
| Wire detectability         | standard: 32 AWG (0.20 mm) • typical: 34 AWG (0.16 mm)   |
| Technology                 | Low dose transmission x-ray                              |

## Operational Data

|                        |  |
|------------------------|--|
| Physical format        | Open tunnel - In line with checkpoint flow |
| Start up time          | <2 minutes                                 |
| Belt speed             | Approx. 0.16 m/s                           |
| Scan method            | Person moved through the beam              |
| Scan time              | < 7 Seconds                                |
| Alarm resolution       | Single image review                        |
| Conveyor load capacity | >220kg (485 lb)                            |

## Installation information

|                         |   |
|-------------------------|---|
| Dimensions              | approx. 2585 [L] x 2525 [H] x 1955 [W][mm] (101.8" x 99.4" x 76.9") |
| Weight                  | 880kg   |
| Humidity                | 10% - 90% (non condensing)  |
| Storage temperature     | -20°C to 60°C   |
| Operating temperature   | 0°C to 40°C   |
| Power consumption       | < 0.9 kVA   |
| Mechanical construction | Metal body (aluminium, steel)                                       |
| Sound pressure          | < 70 dB (A)   |
| Power supply (standard) | 230 VAC / 120VAC +10% / -15% 50 Hz / 60 Hz                          |

## Image generation

|                     |  |
|---------------------|--|
| Generator cooling   | Oil cooled, closed circuit                   |
| Scan format         | Fan beam line scan                           |
| Generator           | 160kV cp, Hermetically sealed oil bath.      |
| X-ray converter     | High resolution semiconductor detector lines |
| Dose per inspection | < 0.25 µSv (<0.025 mRem)*                    |
| Duty cycle          | 100%   |

## Image presentation

|                            |  |
|----------------------------|--|
| Result presentation        | Post scan still image - Full body image        |
| Grey levels stored         | 65536  |
| Image display              | b/w  |
| Image evaluation functions | zoom, various enhancement and filter functions |
| Monitor                    | special colour TFT monitor                     |

## Options / Features

Scan and Image Management system (SIM). Configurations include:

- Stand alone
- Networked with central data and image storage
- Connected to customer

Operator's table  
Side wall / side wall with window  
Can be configured with image store and load capability  
Programmable function keys  
Software for instantaneous offsite independent image assessment  
Remote operator privacy solution

Other B-SCAN™ models available with different dose per inspection

\* Measured in the centre of the tunnel

All applicable national regulations, requirements and approvals need to be considered and addressed by the customer  
All models of B-SCAN have been independently tested against the ANSI/HPS N43.17-2009 guideline



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