

# B-SCAN™ 16HR-FB

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
- Low dose rate <math><2.0\mu\text{Sv}</math>/inspection

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

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.

## Function

<b>Material detected includes</b>	Metal, ceramic, plastics, powders, explosives, narcotics
<b>Detection capability</b>	Objects hidden internally and externally on the body
<b>Type of scan</b>	Full body scan in one inspection pass
<b>Primary function</b>	Screen people for contraband and threats
<b>Wire detectability</b>	standard: 36 AWG (0.13 mm) • typical: 38 AWG (0.10 mm)
<b>Technology</b>	Low dose transmission x-ray

## Operational Data

<b>Physical format</b>	Open tunnel - In line with checkpoint flow
<b>Start up time</b>	<2 minutes
<b>Belt speed</b>	Approx. 0.12 m/s
<b>Scan method</b>	Person moved through the beam
<b>Scan time</b>	< 7 Seconds
<b>Alarm resolution</b>	Single image review
<b>Conveyor load capacity</b>	>220kg (485 lb)

## Installation information

<b>Dimensions</b>	approx. 2585 [L] x 2525 [H] x 1955 [W][mm] (101.8" x 99.4" x 76.9")
<b>Weight</b>	820kg
<b>Humidity</b>	10% - 90% (non condensing)
<b>Storage temperature</b>	-20°C to 60°C
<b>Operating temperature</b>	0°C to 40°C
<b>Power consumption</b>	< 0.9 kVA
<b>Mechanical construction</b>	Metal body (aluminium, steel)
<b>Sound pressure</b>	< 70 dB (A)
<b>Power supply (standard)</b>	230 VAC / 120VAC +10% / -15% 50 Hz / 60 Hz

## Image generation

<b>Generator cooling</b>	Oil cooled, closed circuit
<b>Scan format</b>	Fan beam line scan
<b>Generator</b>	160kV cp, Hermetically sealed oil bath.
<b>X-ray converter</b>	High resolution semiconductor detector lines
<b>Dose per inspection</b>	< 2.0 µSv (<0.20 mRem)*
<b>Duty cycle</b>	100%

## Image presentation

<b>Result presentation</b>	Post scan still image - Full body image
<b>Grey levels stored</b>	65536
<b>Image display</b>	b/w
<b>Image evaluation functions</b>	zoom, various enhancement and filter functions
<b>Monitor</b>	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 database

Operator's table

Side wall / side wall with window

Can be configured with image store and load capability

Programmable function keys

Remote operator privacy solution

Software for instantaneous offsite independent image assessment

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



For product information, sales or service, please go to [www.smithsdetection.com/locations](http://www.smithsdetection.com/locations)

Smiths Detection Germany GmbH, Im Herzen 4, 65205 Wiesbaden, Germany  
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