

# Full-Body X-Ray Scanner for Passenger Screening at the Bandaranaike International Airport

## Minimum Technical and Non-Technical Requirements

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## Introduction

The Full-Body X-Ray Scanner for Passenger Screening document outlines the technical specifications for a full-body scanner that the International Organization for Migration (IOM) plans to procure and donate to Sri Lanka Customs for use at Bandaranaike International Airport in Sri Lanka. The purpose of this scanner is to enhance the capabilities of Sri Lanka in screening passengers at the airport, particularly for detecting contraband or other illicit substances concealed internally or externally.

Suppliers must comply with the following:

## Minimum Technical Requirements

Category	Specification
<b>Function</b>	
Material detected	Metal, ceramic, plastics, powders, explosives, narcotics
Detection capability	Objects hidden internally and externally on the body
<b>Type of Scan</b>	
Scan method	Full body scan in one inspection pass
Primary function	Screen people for contraband and threats
Wire detectability	Standard: 36 AWG (0.13 mm); Typical: 38 AWG (0.10 mm) or better
<b>Technology</b>	Low dose transmission x-ray
<b>Operational Data</b>	
Physical format	Open tunnel - In line with checkpoint flow
Startup time	< 2 minutes or lesser
Belt speed	Approx. 0.12 m/s or higher
Scan method	Person moved through the beam
Scan time	< 7 seconds or lesser
Alarm resolution	Dual image review
Image	Full body - Head to toe
Conveyor load capacity	> 220 kg (485 lbs) or higher
<b>Installation Information</b>	
Dimensions	approx. 2585 (L) x 2525 (H) x 2350 (W) mm (101.8" x 99.4" x 92.5") or similar
Weight	990 kg or lesser
Humidity	10% - 90% (non-condensing)
Storage temperature	-20°C to 60°C
Operating temperature	0°C to 40°C
Power consumption	< 1.0 kVA or lesser
Mechanical construction	Metal body (aluminum, steel)
Sound pressure	< 70 dB (A)
Power supply	230 VAC / 120 VAC +10% / -15%, 50 Hz / 60 Hz
<b>Image Generation</b>	
Generator cooling	Oil cooled, closed circuit
Scan format	Fan beam line scan
Generator	160 kVcp, hermetically sealed oil bath
X-ray converter	High-resolution semiconductor detector lines

Category	Specification
Dose per inspection	4.5 $\mu$ Sv (0.45 mRem) or lesser
Duty cycle	100%
<b>Image Presentation</b>	
Result presentation	Two post-scan still images
Images	Full body
Grey levels stored	65536
Image display	Black and white
Image evaluation functions	Zoom, various enhancement and filter functions
Monitor	Special colour TFT monitor
<b>Options/Features</b>	
Operator's table	Yes
Side wall	Available (option for side wall with window)
<b>Other non-technical Requirements</b>	
Warranty	1-year comprehensive warranty is required
Maintenance (Optional)	Please indicate Year 1 and 2 maintenance costs separately in the financial proposal.
Spare parts	Spare parts should be available for next 10 years, proof letter should be submitted
Local Agent	Supplier must have a local agent authorized to carry out maintenance of the body scanners, Authorization letter to be submitted

**Statement of Compliance Requirements:**

**1. Submission of Statement of Compliance:**

The Bidder shall submit a comprehensive Statement of Compliance addressing each specification outlined in this document.

**2. Format of the Statement of Compliance:**

The Statement of Compliance must strictly follow the prescribed format, which includes:

- Reference Paragraph and Page Number: Clearly indicate the corresponding paragraph and page number from the technical proposal.
- Compliance Status: Mark each specification as either *Compliant* or *Non-Compliant* in the designated field.
- Any field left *blank* will be considered *Non-Compliant*.

**3. Verification of Compliance:**

Each *Compliant* statement must be supported with valid references, which must be provided under the REFERENCES column.

**4. Consequences of Non-Compliance:**

Failure to adhere to these requirements, including incomplete or improperly formatted submissions, may result in disqualification of the bid.

**Example:**

<b>Spec No.</b>	<b>Employers Specifications</b>	<b>Offered Specification</b>	<b>Compliance</b>	<b>References</b>	<b>Comments</b>
1.2.4	System shall be mounted on heavy duty castor wheels for Ease of movement	<i>heavy duty castor wheels</i>	<i>Complied</i>	<i>Ref. Para x.x.x., Page yy of Document ZZ</i>	---

**Note:**

1. Compliance – should be stated as “Complied / Partially complied / non-Complied” (in the event of partially compliance, reason for same shall be stated under comments column)
2. References – Relevant page numbers of Bid / Brochures / catalogues submitted along with the Bid document shall be stated under this column.