

Multi-View 360°3D CT X-Ray Cargo Pallet Scanner



WESTMINSTER
GROUP PLC

Product Code: 1040-05

Key Features



360° 3D CT Multi-View X-Ray Imaging



7 High Resolution Images



Real-Time Image Manipulation



100 mm Steel Penetration



450 kV Generator



Combined Radiography & Computed Tomography



Overview

The Multi-View X-Ray CT Cargo Scanner it combines radiography and computed tomography, allowing freight forwarders, airlines, and government agencies to perform rapid and effective cargo inspections for contraband items.

It has a 450kV generator capable of penetrating more than 100 mm of steel, two times penetration of conventional x-ray cargo system.

It produces 7 x-ray images of the target item each from a different and distinct angle, it can process up to 60 cargo items / pallets per hour. Multiple passes of the target item can produce up to 35 images, providing a 360° inspection.

When inspecting complex, cluttered, and even nonhomogeneous items it can combine data from up to 5 multi-view passes to construct a 3D CT image. Operators can rotate the image on screen, for a full 360° view.

Using CT Screening it can process up to 20 cargo items / pallets per hour

Features

Multi-View 360° 3D CT Imaging

7 x High Resolution Images

450 kV Generator

100 mm Steel Penetration

60 Cargo Items / Pallets per hour

Multi-View 360°3D CT X-Ray Cargo Scanner



WESTMINSTER
GROUP PLC

General Specifications

| | |
|------------------------|---|
| Tunnel Size | W125.7 cm x H170.2 cm |
| Dimensions | L1,260 cm x W453 cm x H296 cm |
| Net Weight | 32,500 kg approximately |
| Max Cargo Dimensions | L121.9 cm x W121.9 cm x H165.12 cm |
| Roller Bed Capacity | 1,600 kg |
| Roller Bed Speed | 0.2 m/s |
| Scan duration 1 Pass | 25 Seconds |
| Scan Duration 5 Passes | 180 Seconds |
| Thru put 1 Pass | Typical 60 Cargo items / Pallets per Hour |
| Thru put 5 Passes | Typical 20 Cargo items / Pallets per Hour |

Technical Specifications

| | |
|----------------------|---------------|
| Steel Penetration | Minimum 90 mm |
| Contrast Sensitivity | 2% at 50 mm |
| Views per Pass | 7 |
| Rotation Per Pass | 45° |

Radiographic

| | |
|--------------------|---------------------------------|
| Wire Resolution | Typical 28 AWG, Standard 24 AWG |
| Spatial Resolution | 2 mm Slots on a 4 mm Pitch |
| Passes | 5 |
| Views | 35 |
| Rotational Image | 225° |

Tomographic

| | |
|------------------|-------------------|
| Voxel Resolution | 3 mm ³ |
| Rotational Image | 360° |

Generator

| | |
|----------------|---|
| Voltage | 450 kV |
| Current, Power | 4.0 mA, 1.8 kW |
| Cooling | Oil Cooling, Chiller & Pump |
| Beam Direction | Horizontal side Shooter, Split Angled Beams |
| Detectors | 7 x 2432 Channelled in L Shaped Arrays |

Electrical

| | |
|--------------|------------------------------|
| System Power | 85 Amp, 200-240 VAC, 3 Phase |
|--------------|------------------------------|

Environmental

| | |
|-----------------------|--------------------------|
| Operating Temperature | 0°C to 45°C |
| Humidity | Up to 95% Non-Condensing |

Standard Features

Control Pedestal
Operator Workstation
Inspection Workstation
Search Workstation
Management System
Radiographic Features
Zoom
Cycle Next / Previous View
Colour
Organic / Inorganic Imaging
Black & White Imaging
Reverse Monochrome
Picture Perfect
Lighter / Darker
Real Time Diagnostics

Tomographic Features

Full 360° Image Rotation
Variable Density Imaging
Variable Atomic Number Imaging
Scrollable Slice Images X, Y, Z Axis
Density Alert
Slice Views Coronal, Axial & Sagittal Planes

Optional Features

Barcode or RFID Readers
Additional Operating Modes
Networking
Multiplexing

Health & Safety

Compliant with USFDA Center for Devices and Radiation Health Standards for Cabinet X-Ray Systems (21-CFR 1020.40)

Typical Radiation leakage is less than 0.2 mR/hr (Leakage less than 0.5 mR/hr permitted by U.S. Federal Standards)

Multi-View 360°3D CT X-Ray Cargo Scanner



WESTMINSTER
GROUP PLC

System Dimensions

