

THE FIRST 3D CT CARGO SYSTEM

The Multi-View CT™ (MVCT)'s powerful design combines multi-view x-ray, high-speed CT and a powerful generator to create 3D reconstructions of complex cargo skids. The MVCT™ screens cargo with 2X the power and 6X the resolution of conventional cargo systems, providing 360° views of cargo for analysts to screen and slice for maximum inspection capability. This scanner brings the same security scrutiny of checkpoint inspection to air cargo, allowing freight forwarders to meet security demands without needing to breakbulk.

450KV GENERATOR:

The Multi-View CT™ is equipped with a 450kV generator capable of penetrating up to 90 mm of steel, 2x a conventional cargo system.

X-RAY MODE:

A single pass through the Multi-View CT™ produces 7 x-ray images, each from a different and distinct angle. Scanning only 1 pass (7 images) can process up to 60 pallets per hour, 4x a conventional cargo system. Multiple passes can produce up to 35 images in just 180 seconds, for a 225° inspection.

COMPUTED TOMOGRAPHY (CT) MODE:

To inspect complex, cluttered, and even non-homogeneous cargo, the Multi-View CT™ 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. CT screening can process up to 20 pallets per hour.

UNPARALLELED IMAGE QUALITY:

The singular combination of radiography and tomography offers an unprecedented level of detail and resolution. The clarity of the images allows operators to identify threats anywhere on the pallet with almost perfect precision and accuracy.

MULTI-VIEW CT™

TOMORROW'S TECHNOLOGY FOR TODAY'S SECURITY™



GENERAL SPECIFICATIONS

Tunnel Size:	167.6 cm x 170.2 cm (WxH)
Dimensions: ² (LxWxH)	1331.1 cm x 453.1 cm x 296.0 cm 524.0" x 178.4" x 116.5"
Net Weight: ²	32,500 kg Estimated (71,650 lbs)
Max Cargo Dimensions: (LxWxH)	121.9 cm x 121.9 cm x 165.1 cm 48.0" x 48.0" x 65.0"
Roller Bed Capacity:	1600kg (3527lbs) Pallet
Roller Bed Speed:	0.2 m/s (0.66 ft/s)
Scan Duration (1 pass):	24 Seconds
Scan Duration (5 passes):	180 Seconds
Throughput (1 pass):	Typical 60 Pallets/Hour
Throughput (5 passes):	Typical 20 Pallets/Hour

TECHNICAL

Steel Penetration: ¹	90 mm Typical, 85mm Standard (ANSI N42.46-2008)
Contrast Sensitivity:	2% at 50 mm Steel
Views per Pass:	7
Rotations per Pass:	45.85°

RADIOGRAPHIC (X-RAY)

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

TOMOGRAPHIC (CT)

Voxel Resolution:	6 mm ³
Rotational Image:	360°

GENERATOR

Voltage:	450kV
Current, Power:	4.0 mA, 1.8kW
Cooling:	Oil Cooling Chiller & Pump
Beam Direction:	Horizontal Side Shooter, Split into Angled Fan Beams
Detectors:	7 x 2432 Channels in L-Shaped Arrays

ENVIRONMENTAL

Operating Temperature:	0°C to 45°C / 32°F to 113°F
Humidity:	Up to 95% Non-Condensing

ELECTRICAL

System Power:	60A, 200-240VAC, 3 Phase
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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)

STANDARD FEATURES

Astrophysics Management
Control Pedestal
Inspection Workstation
Search Workstation
Systems

RADIOGRAPHIC (X-RAY) FEATURES

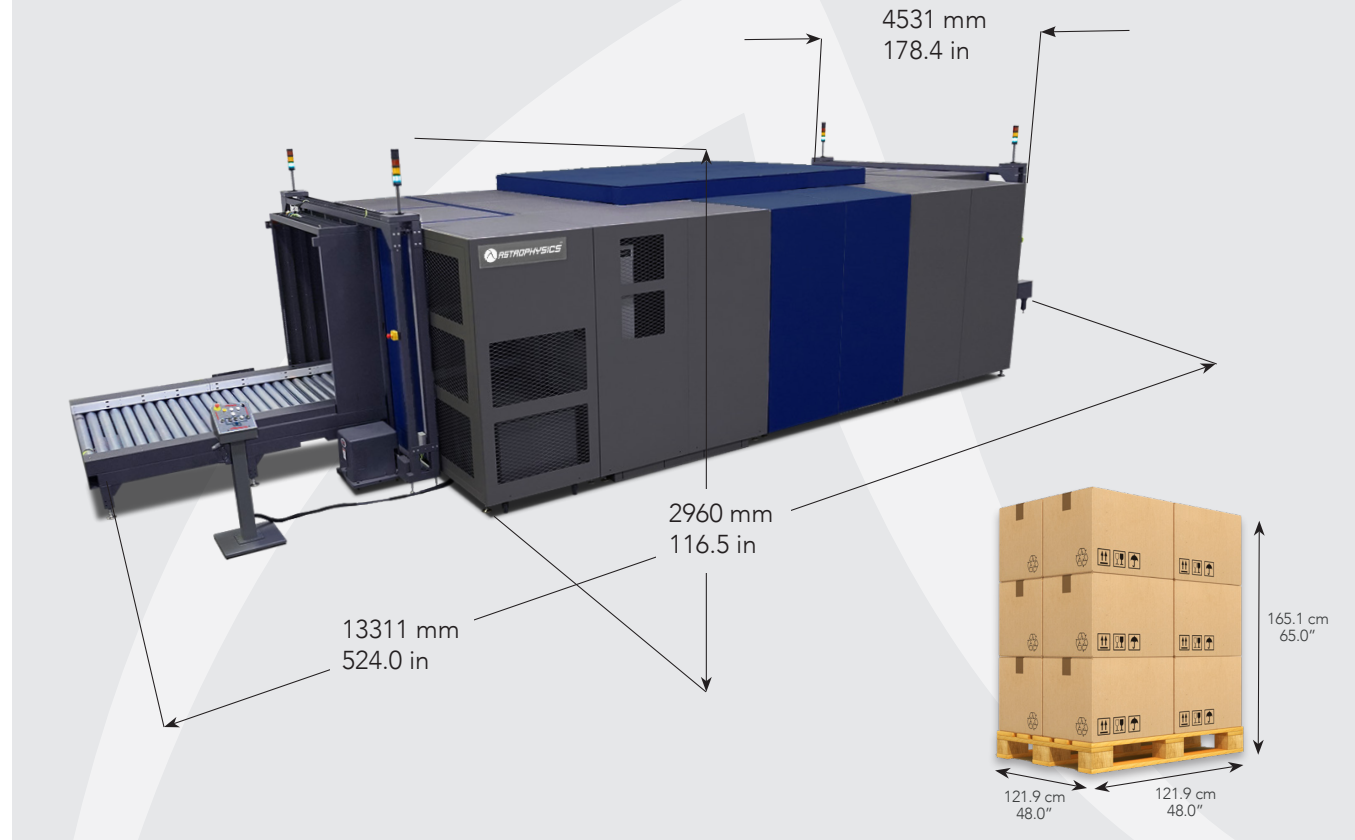
Black & White Imaging
Color
Cycle Next/Previous View
Lighter/Darker
Organic/Inorganic Imaging
Picture Perfect
Real-Time Diagnostics
Reverse Monochrome
Zoom

TOMOGRAPHIC (CT) FEATURES

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

OPTIONAL FEATURES³

Additional Operating Modes
Barcode or RFID Readers
Multiplexing
Networking
Palette Queuing System
Conveyor Capacity Load Increase
External USB Ports



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ISO 9001 & ISO 14001: Certified

¹As tested on Astrophysics Inc. Test Piece.

²Weight and dimensions of the system may vary depending on customization.

³Optional Features may affect lead time, price, and weight of product. Please contact your Astrophysics Sales Representative for more information.

Due to continued product research and development, Astrophysics Inc. reserves the right to amend all technical specifications without prior notice. Contact sales@astrophysicsinc.com for the most updated brochures.



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