XRC X-RAY CENTER

X-RAY SECURITY SYSTEMS

CT BAGGAGE INSPECTION SYSTEMS

- **Customizable and Modular Platform**
- **Industry Leading Baggage Through-Put**
- **Lowest Installation, Service and Maintenance Costs**
- **Seamless Integration with Existing Checkpoint Infrastructure**
- **Fastest Checkpoint System Deployment**
- **Automatic Explosive and Narcotics Detection**
- **Advanced "Fixed-Gantry" CT Architecture**

Transportation Security Administration **AT TIER 2 CERTIFIED**

EMC & SAFETY CERTIFIED

Sentinel® CT is the only TSA Tier 2 certified fixed gantry CT system available in the world today and demonstrates a major advance over rotating gantry systems. It has lower up-front costs, lower maintenance costs, and better overall performance than rotating gantry systems and conventional x-ray systems.

The SENTINEL® 'Fixed-Gantry' CT scanner employs four (4) pairs of fixed mounted, integrated & interlaced multi-energy X-ray generators and detector arrays. Each generator/detector array is optimally configured to provide non-traditional planar projections that significantly expand the robustness, reliability and repeatability of image data and volumetric reconstruction to improve the discrimination and interrogation of threat materials and hidden objects. Using four (4) generators/detector arrays, four (4) integrated & interlaced X-ray planes pass through the scanned baggage to interrogate the contents within the bag and reconstruct 3D visualizations from four different angular perspectives. Rotating Gantry CT systems have only the perpendicular axis to interrogate a scanned object. SENTINAL® CT adds two (2) additional axes looking along the axis of baggage travel increasing the SENTINEL's ability to see and detect objects of interest.

Sentinel® CT offers several significant advantages over traditional 'rotating-gantry' scanners. Because of the mechanical complexity of the 'rotating-gantry' mechanism, traditional CT scanners are typically more expensive to procure and significantly more costly to maintain resulting in very high total cost of ownership. In addition, traditional 'rotating-gantry' CT scanners require significant infrastructure upgrades to most airport lanes to support their increased power requirements, weight and floor-loading factor. The current generation of 'rotating-gantry' CT devices typically weigh much more than the scanners currently deployed and require 208VAC and/or higher three-phase power, which is not available at most airport checkpoints. To the contrary, Sentinel® CT's 'Fixed-Gantry' architecture substantially reduces the total cost of ownership and resolves many of the maintenance, infrastructure support and risk issues facing 'rotating gantry' based CT carry-on baggage inspection systems.

The impact of SENTINAL® CT's innovative architecture includes: 1) providing a 30 to 50 percent improvement over currently deployed AT systems in explosive detection and false alarm rate performance; 2) eliminating the need for liquids and laptop computer divestiture at the checkpoint; 3) facilitating fully automated explosive detection of all carry-on baggage; 4) reducing the number of bags being diverted in Automated Screening Lanes for additional secondary TSO screening; 5) reducing the overall passenger checkpoint throughput time; and, 6) improving the passenger checkpoint experience.

The net benefit is improved carry-on baggage inspection performance and enhanced passenger experience without the cost or need to upgrade current checkpoint infrastructures. The SENTINEL® CT footprint, floor loading and 120VAC power requirements make it the ideal choice for all airports; small, medium and large.

3D RAY-TRACE BIOPSY™

New 3D Ray-Trace Biopsy™ technology gives SENTINEL® CT the most effective detection of threats and other contraband with some of the lowest false alarm rates in the industry. 3D Ray-Trace Biopsy™ leverages volumetric radiometric data to accurately detect threats and reduce false alarms without the need for shape recognition leading to a best-in-class reduction in false alarms.

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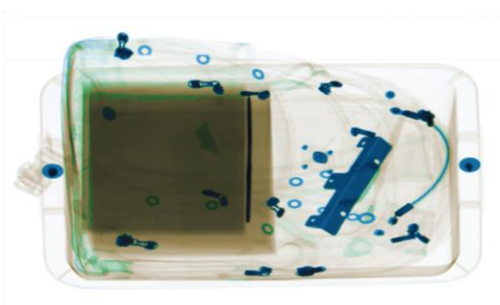
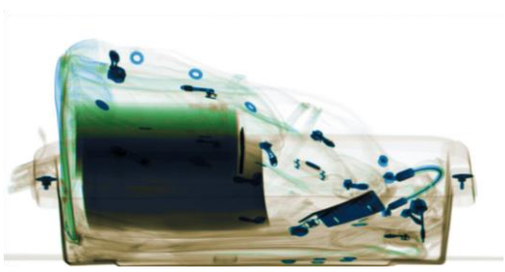
PHYSICAL PROPERTIES

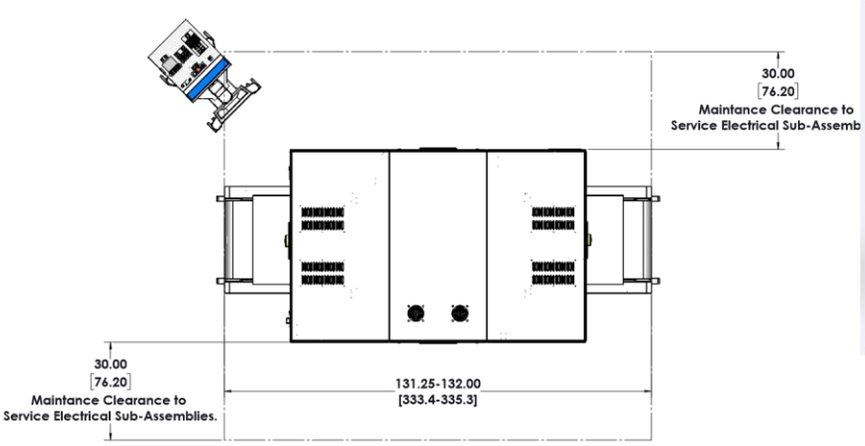
Tunnel Size (W x H)	: 647.7 mm x 421.6 mm
	: 25.5 in x 16.6 in
Dimensions (L x H x W)	: 3353 mm x 1676 mm x 1524 mm
	: 132 in x 66 in x 60 in
Approx. Weight Unpacked	: ~4500 kg (2041 lbs.)
Conveyor Height	: 810 mm (31,88 in)
Conveyor Load Capacity	: 113kg (250lbs.) Evenly Distributed
System Power	: 120/240 VAC +10%/-10%; 50/60 HZ; 3 KVa max; other power options on request
Conveyor Speed	: 0.24 m/s (9.4 in/s); increased scanning speed available

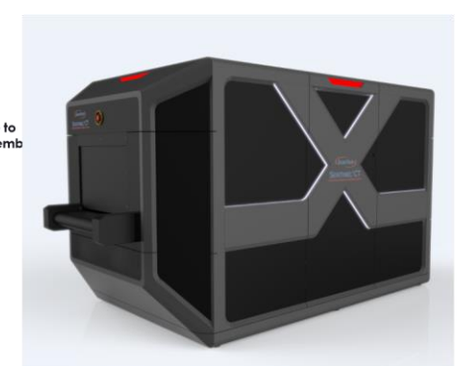
X-RAY GENERATOR & IMAGE PERFORMANCE

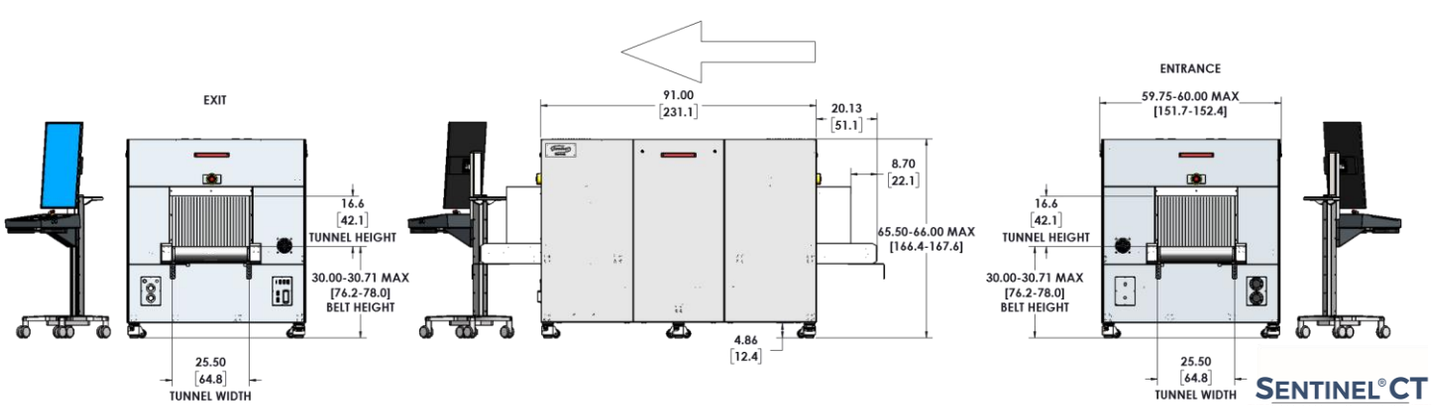
Steel Penetration [1]	: 35 mm of steel
Wire Resolution [1]	: 41 AWG copper wire (.07 mm)
Anode Voltage	: Four (4) - 80 to 160kV X-ray mono blocks (hermetically sealed)
Throughput	: 800+ bags/parcels per hour
Operating Environment	: 0° to 40°C ambient; 95% non-condensing humidity
Detection Of Threats	: Automatic detection of liquids and flammable or explosive threats
External Dose Rate	: ≤ 1 µSv/h (0.1 mrem)











SENTINEL® CT
CHECKPOINT PROPERTY SCREENING SYSTEM