

Rapiscan RTT™

The Next Generation of EDS is Here.



ECAC EDS Standard 3 Approved





The next generation of Explosives Detection System must deliver better performance, greater throughput and higher availability—in a smaller footprint and with lower life-cycle costs.

The next generation is here:

Rapiscan Real Time Tomography (RTT)





Rapiscan RTT™ A Leap Forward in EDS Design and Performance

Achieving the highest levels of security is the ultimate mission. But doing so in a manner that accommodates future expansion and reduces total cost of ownership—without impacting customer service—requires breakthrough innovation in both technology and design.

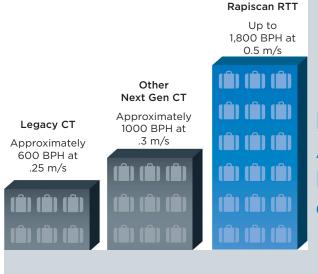
That spirit of 'breakthrough innovation' has driven the multi-year development of Rapiscan RTT, the next generation in Explosives Detection System (EDS). In designing RTT, Rapiscan started with the real-world challenges faced by government agencies and airport operators: performance, throughput, availability, ease of integration and spatial optimization.

Bringing the Precision of Medical Imaging Technology to High-Volume Baggage Handling Systems

Current aviation hold baggage screening systems can deliver high speed and resolution with a high false alarm rate. The Rapiscan RTT combines high speed, high resolution and a low false alarm rate at the first level of screening. Incorporating a full 3D volumetric image with a unique non-rotating gantry CT machine.

Real Time Tomography (RTT) is a revolutionary new type of Computed Tomography (CT) scanner that uses an innovative stationary gantry design that captures detailed 3-D images at speeds of between 1200 to 1800 bags per hour—compared to legacy CTs' rate of 600 bags per hour—at higher resolution and with lower maintenance costs due to its "no moving parts" design.

Rapiscan RTT™ Handles 3X Bags per Hour vs. Legacy CT



Rapiscan RTT™ Accomodates BHS Speed of 0.5 m/s.

The Industry's First Stationary Gantry Design Sets New Standards for Resolution and Reliability

The key to Rapiscan RTT's innovative design is that, unlike other CT baggage screening systems, it does not utilize a moving gantry—one revolving around the bag, typically taking 12 to 15 views. Instead, Rapiscan RTT uses a stationary gantry that incorporates a very large number of micro X-ray emitters that captures tens of thousands of views of a typical bag, therefore generating images with significantly better resolution in all planes at much greater speed.

Advanced Fast Detection Algorithms Produce Best-in-Class Threat Detection

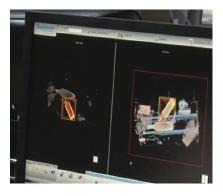
Rapiscan RTT's fast reconstruction and detection algorithms use high resolution CT images to detect the full range of explosive threats in real time. By determining the presence and position of a threat, the industry leading resolution and reconstruction process not only delivers optimal performance for the detection of materials in configurations typically difficult to detect; it also generates fewer false alarms which improves baggage handling efficiency, while lowering operational costs. RTT can also measure density levels in liquids, identifying threat liquids and alerting the operator to potentially concealed explosives.







Fast advanced baggage reconstruction and explosives detection algorithms HBS class-leading high resolution 3D X-ray images and low false alarm rates



Stationary CT Gantry providing significantly higher reliability and system availability Full volumetric continuous scanning at .5 m/s BHS speed



Modular chassis design allows installation flexibility



STP Compliant

Built-in flexible system configuration, to fit into any security architecture

Capable of multiplexing systems and workstations Throughput up to 1800 bags per hour

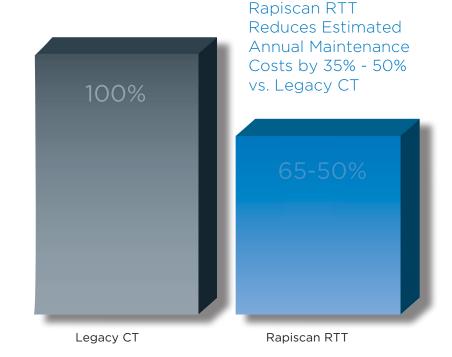
Easily integrated into any baggage handling system, including existing BHS infrastructure Tested under the ECAC CEP and meets Standard 3 EDS requirements



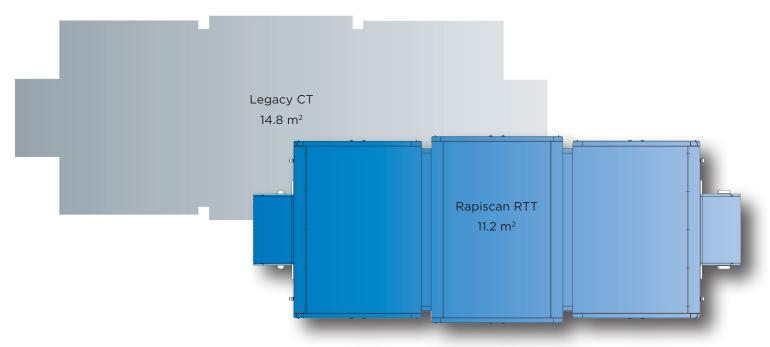


How Does Rapiscan RTT's Revolutionary Design Reduce Overall Cost of Ownership?

- Anticipated lower maintenance costs with the elimination of a complex rotating gantry.
- High throughput results in fewer machines necessary to handle a given volume of bags — and gives airports the ability to meet future demands without costly new capex investments.
- The system can be integrated inline with the existing baggage conveyor network without the need for costly modifications or reconfiguration.
- Advanced Graphical User Interface and ergonomic, energy-efficient design.
- Designed for easy installation, operation and maintenance.
- Lower automated false alarms due to better image quality and state of the art GUI, which translates to reduced alarm resolution costs



Rapiscan RTT Footprint is 24% Smaller than Legacy CT





What questions should airports ask when planning for an effective EDS solution?

How can an EDS improve the airport's operational efficiency? An EDS at full speed will have the fastest transit time from the check-in counter to the aircraft (Point A to Point B).

Will the airport's BHS be able to integrate well with the EDS? The EDS should easily be integrated into an existing or new BHS to keep CAPEX and operating costs low.

What is the equipment's reliability rating? Airports should be aware of equipment reliability testing. Airports should demand the most advanced technology i.e. a stationary gantry to ensure system reliability for a decreased BHS line down time.

How is the integration going to be managed for a successful deployment? OEM's, like Rapiscan Systems must have experience in deploying large and complex HBS projects and the ability to work with all stakeholders to ensure a smooth integration.

Award Winning Rapiscan RTT™ is Engineered to Offer the Lowest Total Cost of Ownership.



Rapiscan Systems was awarded Best Innovator 2011/2012 for the Real Time Tomography (RTT™) system at the Airport Operators Association Annual Conference.

	Morpho CTX-9800	eXaminer XLB	Rapiscan RTT™
Stationary Gantry Design			\checkmark
Throughput of up to 1,800 bags per hour			\checkmark
Accommodates .5 m/s BHS speed			\checkmark
Lowest False Alarm Rate			\checkmark
Super High Resolution 3D images			\checkmark
Modular Housing Design	\checkmark	\checkmark	\checkmark
Footprint less than 11.3 m ²			\checkmark
Multiplexing Capabilities	\checkmark	\checkmark	\checkmark
Industry Highest Mean Time Between Failure (MTBF)			\checkmark
On Board GUI Diagnostics Tools		\checkmark	\checkmark
STP Compliant			\checkmark
ECAC Standard 3 Approved	\checkmark	\checkmark	\checkmark



An OSI Systems Company





Rapiscan Systems: The Innovation and Dedication You Expect from a Leader

A technological leap forward like the one represented by Rapiscan RTT can only be achieved by a company that has the highest levels of experience and dedicated industry focus. In the research and development of RTT, Rapiscan Systems has partnered with many of the world's leading academic and research institutions as well as leading airport authorities.

Rapiscan Systems is a global leader in high quality security inspection solutions and advanced threat identification techniques, with more than 70,000 systems installed worldwide. Security is our only concern, and we focus on developing solutions that achieve security in a manner that is future-proof and cost-effective for our customers.

Rapiscan has a number of products approved by government agencies including the UK Department for Transport (DfT), the Service Techinique de l'Aviation Civile (STAC) and the U.S. Transportation Security Administration (TSA). All Rapiscan products are backed by a worldwide training, maintenance and service organization which is available to customers 24x7.

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