The Reveal CT-80 is the first Explosives Detection System (EDS) designed for 100% checked baggage inspection. The CT-80 utilizes Reveal’s proprietary Dual Energy, Computed Tomography (CT) architecture. This is a unique approach to EDS design that enables full size checked baggage to be inspected in the smallest possible footprint. The Reveal CT-80’s superior detection and false alarm performance is available for as little as one quarter the cost of traditional certified CT scanners.

Automated Detection
This next-generation system is based on proven CT technology. Bags are screened automatically for the full spectrum of explosives, with most bags automatically cleared by the system. Dual Energy CT uniquely measures both density and atomic number (Z) to provide the highest detection with the lowest possible false alarm rate.

Threat Resolution
The highest image resolution and most advanced threat resolution tools of any certified EDS system enable operators to quickly and accurately resolve a higher percentage of alarm bags. The Reveal CT-80 provides an advanced EDS user interface designed to comply with the latest TSA alarm resolution protocols.

Distributed Architecture
The Reveal CT-80 is designed to inspect checked baggage, carry-on baggage, air freight and parcels in a distributed network of EDS machines. Full multiplexing enables the CT-80 to send suspect bag images to remote screeners to minimize labor requirements. With a footprint similar to a conventional carry-on baggage X-ray system and the ability to run from single phase power, the compact CT-80 is ideal for facility protection, carry-on baggage inspection and other applications to provide certified EDS performance where traditional EDS systems cannot be deployed due to size and cost constraints.

Features
- Smallest size of any certified EDS
- Dual energy computed tomography
- 100 Bags per hour (initial)
- 80cm tunnel size for full size checked baggage
- Highest Resolution of any Certified CT scanner
- Low false alarm rate
- Fully multiplexed architecture
- TIP/FDRS ready
- Runs on single phase, 200 – 240VAC, 50/60Hz, 15Amps max
- Floor Loading: no structural changes required for typical airport terminals

TSA CERTIFIED EDS

100% Check-In Protection
EDS Configurations for Small,

The flexible distributed architecture of the Reveal CT-80 enables EDS integration at airports of any size.

**Standalone**
- Easy installation – roll in and plug in
- Instant process improvement
- Immediate improvement in operational efficiencies
- Replaces primary ETD screening
- Curbside, lobby, check-in or kiosk
- Minimal airport modifications; plugs into standard 220v
- Ideal for level 3 screening as part of any inline checked baggage installation HBS

**Take-Away**
- Simple in-line configuration
- Removes Screening process from passenger lobby area
- Ideal for small – medium size airports
- Allows each airline to retain a dedicated baggage line
- Minimal infrastructure cost
- Installs in weeks, not years
- Fully multiplexed, allowing threat resolution with passenger or in baggage makeup area

TSA CERTIFIED EDS
**Physical Specifications**

Dimensions:
- Length: 244cm (95.5in)
- Width: 140cm (55.3in)
- Height: 148cm (58.3in)
- Weight: 1678kg (3700lbs)
- 1769kg (3900lbs) w/crate

Tunnel Size:
- 800mm (31.5in) tunnel diameter
- 635mm (25.4in) conveyor belt width

Conveyor Height: 460mm (18in)

Conveyor Load: 100kgs (220lbs)

Max. Bag Dimensions:
- Length: 1200mm (47.2in)
- Width: 800mm (31.5in)
- Height: 630mm (25in)

Throughput: 100 bags per hour (initial)

Power: Single phase, 200-240VAC
- 50/60Hz, 15Amps max

Unit is mounted on heavy-duty wheels and leveling feet for ease of installation

**Imaging Performance**

X-ray resolution: 38 AWG tinned copper wire
X-ray penetration: 30mm steel
CT pixel resolution: 0.80mm
21” high resolution flat panel display monitor
1600 x 1200 video resolution

**Imaging Functions**

Gray scale, color (organic/inorganic/metallic), reverse video, multi-level contrast, edge enhancement, interpolated zoom, contrast adjustment, others

**Health and Safety Compliance**

FAA 14 CFR 108.17 Use of X-ray systems
FAA 14 CFR 108.20 Use of explosives detection systems
FAA 14 CFR 129.26 Use of X-ray systems
CDRH 21 CFR 1020.40 Cabinet X-ray systems
CE, UL, CSA approved

Maximum X-ray leakage less than 0.1mR/Hr (1μS/HR)

**Environmental Requirements**

Operating Temperature:
- 5°C to 32°C (41°F to 90°F)
- without optional A/C unit
- 5°C to 40°C (41°F to 104°F)
- with optional A/C unit

Relative Humidity: 5% to 85% non-condensing

**Machine Control Interface**

LCD touch screen Machine Control Interface (MCI)

**Available Accessories**

Full multiplexing utilizing Gigabit Ethernet
Threat image projection (TIP)
Field data reporting system (FDRS)
On-the-job training (OJT)
Operator qualification test function (OQT)
Fully-integrated check-in stations
1m infeed and outfeed conveyors
1.3m infeed and outfeed conveyors with optional tunnel shrouds
1m and 1.3m roller tables
1m and 1.3m friction slides
External air conditioning unit
Large transport wheel set for ease of movement
Operator mat

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All specifications subject to change without notice.
Medium and Large Airports

The Reveal integration team will work with you to plan and determine configurations that work best with your airport and that minimize infrastructure changes and costs.

Simple Inline
- Install 1-3 CT-80 units into each airline's outbound baggage conveyor belt
- Eliminates the complexities associated with a common inline system
- Allows airlines to retain a dedicated baggage line
- Level 3 screening is conducted in the bag room
- Alarmed bags may be pulled manually by TSA or automatically diverted based on airport size
- Minimal infrastructure cost
- Eliminates high operational and maintenance costs associated with a common in-line system

Integrated Inline
- Simplest in-line configuration for larger airports
- Removes screening process from passenger lobby area
- Distributed architecture handles any level of throughput
- Minimal infrastructure cost
- Fully multiplexed, allowing threat resolution with passenger or in baggage makeup area
- Minimal space required in baggage makeup area
- Expanded infeed queue serves as new takeaway belt for agents
- Ticket agents continue to perform only the ticketing function, with all security operations either automated by the CT-80 or reviewed by remote security screeners.