



Reveal CT-80DR explosives detection system

Compact, automated detection of explosives in checked bags, air freight, and parcels
A cost-effective baggage screening solution for inline and standalone operation



The Reveal CT-80DR's optional touch-screen machine control console is designed to interface with existing networked scanning operations.

The compact, lightweight Reveal CT-80DR explosives detection system features proprietary dual-energy computed tomography (CT) architecture that provides enhanced detection and false alarm rate performance at an economical price. Designed for both networked inline and stand-alone screening operations, the CT-80DR's small size and light floor loading, single-phase power requirement, and available accessories—including multiplexed screening, data collection systems, threat image projection, and on-board controls—help easily integrate the system with existing airport baggage scanning operations.

The Reveal CT-80DR—ideal for airport, port, facility protection, and freight scanning operations requiring enhanced detection at an affordable price.



The optional Reveal CT-80DR XL can handle oversized bags up to 250 cm (98.4 in) long.

Key features

- Dual-energy CT for detection of a wide range of explosives
- Low false alarm rate
- Compact size and light weight
- Large tunnel size accommodates full-sized checked baggage
- Fully integrated field data reporting system
- Optional accessories
 - Threat image projection (TIP)
 - Remote multiplexing with gigabit Ethernet communications
 - Machine control console
 - 1.2-m infeed and outfeed conveyors
 - Flat or sloped configurations
 - XL option handles oversized bags
 - External air conditioner

Automated detection

The CT-80DR's proven dual-energy CT technology automatically screens bags for a wide range of explosives—including homemade and liquid explosives. The system measures both density and atomic number (Z_{eff}) to significantly enhance detection probability with very low false alarm rate—which allows more bags to be cleared without the need for secondary inspection.

Threat resolution

The CT-80DR provides high-resolution, advanced threat resolution tools that help operators quickly and accurately resolve alarms. The system's advanced user interface is designed to comply with the latest alarm resolution protocols. Networked in an existing baggage scanning operation, the CT-80DR can send suspect bag images to centralized remote screeners to help minimize labor requirements.

Dimensions	244.1 cm (96.1 in) L x 140.1 cm (55.2 in) W x 146 cm (57.5 in) H
Tunnel specifications	80 cm (31.5 in) diameter, 63.5 cm (25 in) belt width, 63 cm (24.8 in) max. height above belt, max. load 55 kg (121 lb)
Max. bag size (at conveyor)	120 cm (47.2 in) L x 63.5 cm (25 in) W x 63 cm (24.8 in) H (standard) 250 cm (98.4 in) L x 63.5 cm (25 in) W x 63 cm (24.8 in) H (XL option)
Throughput	226 bags per hour (standard system) 130 bags per hour (XL option)
Power	Single phase 200-240 VAC, 50/60 Hz, 20 Amp (30 Amp with UPS)
Health and safety compliance	FAA 14 CFR 108.17; FAA 14 CFR 108.20; FAA 14 CFR 129.26; CDRH 21 CFR 1020.40; FCC 47 CFR Part 15; NRTL, UL, and CSA approved; CE-marked, conforms to CE directives and standards; complies with U.S. and European radiation safety standards
Environmental	Operating temperature: 5° to 32° C (41° to 90° F); 5° to 40° C (41° to 104° F) with optional air-conditioning unit Relative humidity: 10% to 90% non-condensing
Imaging performance	X-ray resolution: 36 AWG tinned copper wire in air, ASTM F792-01 1.0-mm line pair resolution in both directions X-ray penetration: 24 AWG behind 7.94-mm (5/16-in) steel, 30 mm steel per ASTM F792-01 Resolution: CT pixel 0.80 mm, display 1600 x 1200 pixels
Imaging functions	Grayscale, color organic/inorganic/metallic, reverse contrast, multi-level contrast, edge enhancement, interpolated zoom, contrast adjustment

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