

Small footprint
conveyor scanner
High specification

TR50
TR Detector 50



The increase in extremism and terrorism means the need for reliable protection is more critical than ever. And there's no better way to safe-guard your business and workforce against the disruption, damage, injury, or even death that these threats can cause, than with the TR Detector 50.

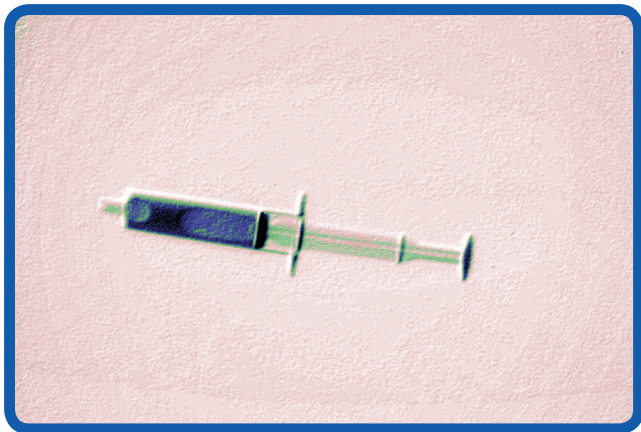
Introducing an advanced technological system with superior image quality, explosives detection, network connectivity and configurability, while still maintaining a reduced footprint, the TR50's advanced scanning instantly reveals any potential danger – so you'll always know what your packages contains, *before you open them.*



You require...

...safety and security that you can rely on – from a reduced footprint, multi purpose flexible conveyor system with the capacity to detect all threats at speed and with high sensitivity

- You deal with a small to medium volume of mail, packages and/or baggage
- You have limited space and/or require the least obtrusive conveyor scanner



Todd Research – Why you are safe in our hands

Founded in 1950, we are a company entirely dedicated to providing essential threat protection to businesses of all sizes. Our track record for delivering appropriate, reliable and innovative security solutions is second to none - because we never forget that anything less than the very highest standards could result in potentially severe or fatal consequences. We are constantly investing in developing new technologies to fulfill future security needs. Fully compliant with all HSE and international safety standards, buying Todd Research is more than an investment in technology. It's an investment in total peace of mind.

Innovation – Design – Manufacture – Installation – Service – Training – Support

We recommend...

...the all new TR50, launched in 2009, incorporates all the features of our TR70 but in a reduced size chassis. Designed for our customers who need superb quality imagery within a compact design

Essential for: Airports and Embassies, Armed Forces and Emergency Services, Facility Management and Financial Institutions, Pubs and Clubs, Prisons and Hospitals, Laboratories and Legal Offices, Schools and Universities, Museums and Galleries, Sports Centres, Stadiums, Shops and Stations, Refineries and Power Plants

The ultimate entry level X-ray system

The TR Detector 50

- Tunnel size of 506mm x 360mm
- Footprint = 1173 sq cm (TR70 = 2025 sq cm)
- 0.2m/second belt speed
- Materials recognition via colour coding; assigns blue to ferrous, green to inorganic and brown to organic items
- Suitable for mobile or stationary applications
- The latest x-ray generator and sensor technology for maximum performance
- Wide ranging features for pin-point accuracy
- Filter defines shape and edges
- Network connectivity to provide: remote diagnosis, image archiving (via TIF or JPEG formats) and full customer personalization

Optional

- TIP: Threat Image Projection
- OpTrainer: Operator Training System

Technical Specifications TR50

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Detection System

- Wire resolution: 38AWG guaranteed, 42AWG typical
- Steel penetration: 27mm guaranteed, 30mm typical
- Double L-shaped array: 768 detectors

X-Ray generator

- High frequency monobloc
- Tube voltage: 150kV
- Tube current: 0.5mA
- Beam orientation: Diagonal upwards

Inspection unit

- Dimensions: 1,524mm (L) x 770mm (W) x 1,212mm (H)
- Weight: 380kg
- Tunnel size: 506mm (W) x 360mm (H)
- Belt height: 680mm (adjustable)
- Belt speed: 0.2m/second
- Max belt load: 165kg
- System Power: single phase 230VAC or 110VAC +/- 10%; 50/60Hz +/- 3Hz monophasic
- Duty cycle: 100%

Control Unit

- Console is integral to scanner on top of unit
- Switch on key – belt movement buttons – image processing buttons – programmable buttons – emergency stop-button
- Monitor: 19" LCD (1280x1024 pixels)
- Mouse

Environmental compliance

- Operational temperatures: 0°C to 40°C
- Storage temperature: -20°C to +60°C
- Humidity: 95% without condensation
- Protection class: IP22
- Noise level: < 60dB

Health and safety

The system fully meets the applicable international regulations for X-Ray equipment

- Leakage dose at 10cm: < 1.0µSv/h (0.1mR/h)
- Film safety: guaranteed up to ISO 1600/33 DIN

Operating environment

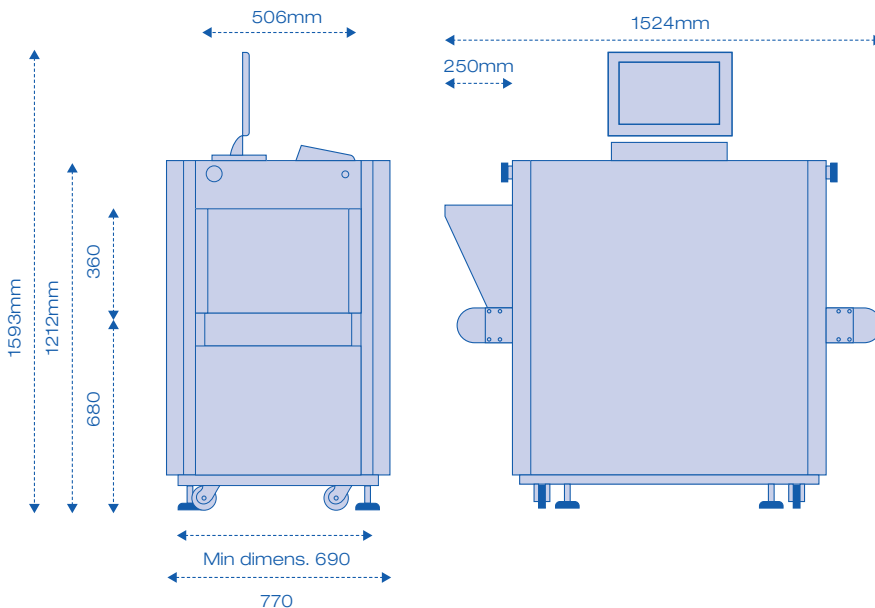
- Operating temperature: 0°C – +40°C
- Storage temperature: -20°C – +60°C
- Relative humidity: 95% non-condensing
- Protection class: IP 22
- Noise level: < 60dB (A)

Standard features

- Density threat alert
- Image archiving
- Session archiving
- Multi-energy technology
- Variable penetration
- "High penetration": optimum contrast in denser areas of the image using a dedicated key.
- "Low penetration": optimum contrast in less dense areas of the image using a dedicated key
- Optimum contrast: provides the selection of optimum contrast obtained through histogram equalization
- Edge enhancement: provides the enhancement of edges and wires on the image.
- Pseudo-color: this function assigns colors to different grayscale levels in the image to increase contrast between areas with similar absorption.
- Energy stripping: this function permits the visualization of a single material family or different combination of families on the color monitor.
- Contrast window: permits the expansion of gray levels within a window that can be positioned along the gray scale.
- Reverse image
- Continuous zoom up to 64X
- Rotozoom
- Image recall
- Session recall
- Tutorial
- Info: provides the visualization of a diagnostic page which can help operators evaluate system performance
- UPS

Optional

- TIP
- Net-Server
- AIMS
- Reverse
- Training
- Remote diagnostic
- 19" LCD / CRT monitors (1280 x 1024 pixels)
- Video printer
- STP test
- Operator mat
- Variable flow configuration



Design Policy

Todd Research reserves the right to change specifications in the course of continuous improvement. Specifications are provided for reference only and actual equipment may differ slightly from the description given. Typical dimensions are within ±5% of nominal values.

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