

thermoscientific



Powerful X-ray contaminant detection and product inspection

Thermo Scientific Xpert X-ray inspection systems detect a wide range of foreign objects, verify product integrity.



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The Thermo Scientific™ Xpert™ X-ray system enables compliance with worldwide HACCP and retailer food safety requirements. It also offers image analysis for other critical quality verifications. This high performance yet very robust platform enables you to immediately identify problems so you can take fast corrective action.

Innovative design and advanced technology, along with application flexibility makes the Xpert easy to install and use in many different applications.

It is ideal for small bags to large cartons and customizations for material handling, harsh environments and special inspections.

Features & benefits

- Detects a range of contaminants
- Verifies product integrity
- Modular, reliable, robust design
- High resolution and sensitivity detectors for state-of-the-art performance
- Suite of inspection algorithms for reliable detection and minimal false rejects
- High reliability X-ray sources with long life expectancies
- Food-safe materials employed for areas close to the products being inspected
- Modular, robust mechanical design improves reliability and facilitates servicing
- Multiple apertures and X-ray powers
- Built-in, remote monitoring for quick problem determination



Safety is assured via an LED light pole, multiple e-stops, X-ray key switch, inspection area door lock and safety interlocks on all doors.

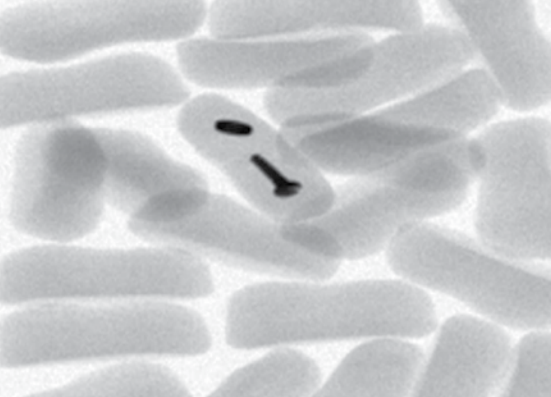


Change a conveyor belt in minutes. Modular design with many infeed/outfeed lengths, rejecters, bins, and shields.



No-lead X-ray shielding curtains on fully adjustable and removable frame for safety, flexibility and easy maintenance.





Options to customize your system

- Extended length in/out feed conveyors
- Reject mechanisms
- Single or dual reject bins
- Lockable system wheels
- Guiderails
- Barcode readers
- Low/med/high power X-ray sources
- Stainless steel IP65 rated air conditioner
- Radiation safety meter
- Advanced weight and virtual containment software
- Customized inspection software
- UL508 compliance (standard in North America)
- Spare parts kits

Sensitivity, durability, reliability

With industry-leading resolution and detection software, the Xpert system can find contaminants other systems miss, so your production shipments are safe with a minimum of false rejects. To address TCO (Total Cost of Ownership), the Xpert was designed to be simple, modular, flexible and insensitive to its environment.

A five-step Easy Set-Up process keeps it simple to use. To facilitate application optimization and troubleshooting, the Xpert systems allow real-time software filter adjustment, reject image storage/analysis, I/O and source/detector testing and other advanced software capabilities, along with full machine data logging. The result is an X-ray system that is a food quality and safety expert.



Protected, large touchscreen for washdown and durability. Watertight USB port for data import and export. Ethernet connection also built in.



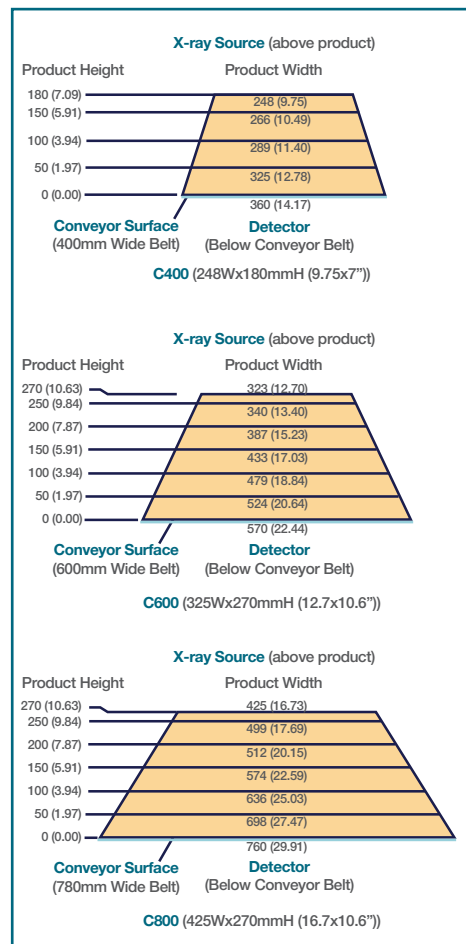
High-quality, stainless-steel air conditioning cooling. Wide operating temperature range and IP65 rating.



Air blast and pusher rejection options. Lockable reject bins with reject verification and bin full photoeyes.



X-ray Inspection Area



Xpert C400/C600/C800 X-ray inspection Systems

Application and X-ray Specifications	
Standard X-ray Power	C400: 100 W (70 kV/1.4ma), C600: 150 W (75 kV/2ma), C800: 315 W (90 kV/3.5ma)
Optional X-ray Power	C400: 150 W (75 kV/2ma) and 315 W (90 kV/3.5ma), C600: 315 W (90 kV/3.5ma)
Detector Scan Rate	Up to 2800 lines/second
Detector Resolution	0.8 mm standard, 0.4 mm optional (C400 only)
Detection Algorithms Available	Binary, Contrast, Gradient, Groups, Morphology
Inspection Algorithms Available	Weight, Count, Grid and customizations
Aperture Width and Height	See beam coverage drawings to determine correct model
Belt Speed Range	Up to 60 m/min (196 ft/min). Lower speed 40 m/min (130 ft/min), higher torque optional.
Multilane Operation	Up to 8 lanes
Conveyor Heights	From 800 mm (31.5 in) to 1000 mm (39.4 in). Frames available for nominal line heights of 1200 and 1400 mm (47.2 to 55.1 in)
Conveyor Lengths	C400: 1.5 m (58.6 in), C600: 1.4 m (55.1 in) and C800: 1.8 m (70.9 in) line lengths. Many options for different in-feed/out-feed lengths.
Belt Material	FDA-approved urethane
X-ray Curtain Material	Proprietary no-lead material
Safety/Security Features	X-ray power key, emergency stops, radiation curtains, LED X-ray imminent/on lights, all doors equipped with magnetic interlocks
Human Machine Interface (HMI)	15-inch diagonal touchscreen with protective cover
Interface Languages Available	English, Spanish, Italian, French, German, Chinese; Others available on request

Environmental, Electrical and Operational Specifications	
Operating Temperature	+5°C to +40°C (+41°F to +104°F)
Machine Cooling	Built-in 2083 BTU (610 W) cabinet airconditioner
Relative Humidity	20% to 90% non-condensing
Electrical Input	190 to 240 VAC, 50/60 Hz, 20-amp service
Digital Outputs	4 available
Digital Inputs	6 available
USB Port	2.0, watertight port on outside of machine
Network Port	Ethernet
Compressed Air (for rejection devices)	80 psi to 100 psi (5.5 bar to 6.9 bar)
Machine Weight (standard model)	C400: 415 kg (915 lbs), C600 500 kg (1102 lbs), C800: TBD

Conformance Tests and Certifications	
Radiation Safety Conformance	FDA CFR 21 part 1020.40, UK IRR 1999, RED act (contact factory for other regional certifications)
Export/Safety	CE, UL or CSA on request
Intrusion Protection Rating	IP 54, optional or IP65 with washdown airconditioner option

Product Assurance Services & Solutions (PASS)

Through the Thermo Scientific™ Product Assurance Services & Solutions (PASS) program, we can thoroughly test every suspected product for contaminants so that you can continue producing products that your consumers rely on! Learn more at www.thermofisher.com/pass.



Find out more at thermofisher.com/xpert

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