



Food X-Ray Inspection Systems Specification Sheet

X-ray inspection for the contaminants a metal detector cannot see: glass, stone, bone and hard plastic.

Models in this sheet: AVG-FX-Mini Compact Food X-Ray Inspection System, AVG-FX-S Food X-Ray System with Auto Reject, AVG-FX-600 Wide-Belt Food X-Ray Inspection System, AVG-FX-400 Food X-Ray Inspection System

Figures in this document are those published by the factory for each model. Where a value is shown as TBC it is not published, and we confirm it with the factory before order rather than estimate it. Specifications are subject to change without notice.

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1. AVG-FX-Mini Compact Food X-Ray Inspection System

The AVG-FX-Mini puts X-ray inspection on a QC bench instead of a production line. It needs under 1.0 square metre of bench area and a standard AC outlet, but runs the same AI detection algorithm as the production-line models, so a result from the lab matches what the line will see. Minimum ferrous detection is 0.3 mm or better through a 250 x 100 mm tunnel.

Key benefits

- Fits on a standard QC bench in under 1.0 square metre, no floor mounting
- Runs on a standard AC outlet with no special power infrastructure
- Same AI detection engine as the production-line models
- R&D; mode gives high-resolution capture for product development and failure analysis
- Minimum ferrous detection of 0.3 mm or better

Specification

X-Ray Tube	60 to 80 kV adjustable
Tube Power	under 0.4 kW
Tunnel Size	250 x 100 mm
Belt Width	250 mm
Belt Speed	5 to 30 m/min
Minimum Detection (Fe)	0.3 mm or better
Image Resolution	0.4 mm pixel pitch
Display	12-inch touchscreen
Housing	SUS304 stainless, IP54
Footprint	under 1.0 square metre bench area
Power Supply	AC 220 V, 50 to 60 Hz, 0.8 kVA

2. AVG-FX-S Food X-Ray System with Auto Reject

The AVG-FX-S is the model to specify when the X-ray point is a documented Critical Control Point. Contaminated packs are removed automatically by flap arm, pneumatic pusher or air-blast into a lockable key-access bin, and every reject is logged with image, timestamp and operator ID, which is the record a HACCP audit actually asks for.

Key benefits

- Every reject logged with image, timestamp and operator ID for audit
- Choice of flap arm, pneumatic pusher or air-blast rejector per product
- Lockable key-access reject bin prevents tampering and recontamination
- Reject pulse synchronised with sub-second precision at line speed
- Documented Critical Control Point for food-safety audits

Specification

X-Ray Tube	80 to 130 kV adjustable
Tube Power	under 1.2 kW
Tunnel Size	400 or 600 mm wide by 150 to 200 mm high
Belt Speed	5 to 60 m/min
Minimum Detection (Fe)	0.3 mm or better
Rejector Type	Flap, pusher or air-blast
Reject Bin	Lockable, key access

Display	15-inch or 19-inch industrial touchscreen
Audit Log	Image, time and operator ID
Housing	SUS304 stainless, IP65/66
Power Supply	AC 220 V, 50 to 60 Hz, 2.5 kVA

3. AVG-FX-600 Wide-Belt Food X-Ray Inspection System

The AVG-FX-600 exists for product that will not fit or will not image on a standard belt: large pouches, multi-pack bundles, frozen meat, seafood and pet food. A 600 x 200 mm tunnel takes the pack, and a 100 to 130 kV source with a larger detector array holds sensitivity across the wider field, including through aluminium-foil packaging. The IP66 washdown housing is built for seafood and meat areas.

Key benefits

- 600 mm belt takes large pouches, multi-pack bundles and trays
- 100 to 130 kV source penetrates dense and foil-packaged product
- Sensitivity held across the wider field by a larger detector array
- IP66 washdown stainless for seafood and meat processing
- Dual-energy option separates organics from minerals

Specification

X-Ray Tube	100 to 130 kV adjustable
Tube Power	under 1.2 kW
Tunnel Size	600 x 200 mm
Belt Width	600 mm
Belt Speed	5 to 60 m/min
Minimum Detection (Fe)	0.4 mm or better
Minimum Detection (SUS)	0.6 mm or better
Image Resolution	0.4 mm pixel pitch
Display	15-inch or 19-inch industrial touchscreen
Housing	SUS304 stainless, IP66
Power Supply	AC 220 V, 50 to 60 Hz, 2.0 kVA

4. AVG-FX-400 Food X-Ray Inspection System

The AVG-FX-400 is the standard daily-production model: a 400 x 150 mm tunnel, 60 m/min belt speed and IP65 SUS304 housing compatible with CIP cleaning. Its onboard deep-learning detection covers what a metal detector cannot, identifying glass, stone, bone and hard plastic as well as metal, at 0.3 mm or better for ferrous.

Key benefits

- Detects glass, stone, bone and hard plastic as well as metal
- 0.3 mm Fe and 0.5 mm SUS minimum detection
- 60 m/min line speed runs without creating a bottleneck
- IP65 SUS304 housing compatible with CIP cleaning protocols
- Multilingual interface with role-based access and a full audit log

Specification

X-Ray Tube	80 to 100 kV adjustable
Tube Power	under 0.8 kW

Tunnel Size	400 x 150 mm
Belt Width	400 mm
Belt Speed	5 to 60 m/min
Minimum Detection (Fe)	0.3 mm or better
Minimum Detection (SUS)	0.5 mm or better
Image Resolution	0.4 mm pixel pitch
Display	15-inch industrial touchscreen
Housing	SUS304 stainless, IP65
Power Supply	AC 220 V, 50 to 60 Hz, 1.5 kVA