



Industrial Metal Detectors for Food Processing Specification Sheet

Conveyor and gravity detectors that keep metal out of finished food, and the evidence to prove it.

Models in this sheet: FSD-2025 Conveyor Metal Detector, FSD-2024SS Stainless Steel Conveyor Metal Detector, FSD-2023 Conveyor Belt Metal Detector, FSD-2020S Digital Touchscreen Conveyor Metal Detector, FSD-2010SS Digital LCD Conveyor Metal Detector, VXR-G2 X-Ray Food Inspection Machine, Conveyor Belt Metal Detector with Flap Reject, Pipe Feed Metal Detector for Sauce and Liquid Lines, Food Safety Conveyor Metal Detection System, VMF-Inclined All Metal Detector for Food Manufacturing, All-Purpose Food Metal Detector with Stainless Conveyor, LCD Auto-Learning Conveyor Belt Metal Detector, Food Grade Stainless Steel Metal Detector with Rejection

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. FSD-2025 Conveyor Metal Detector

The FSD-2025 is a conveyor metal detector for food and pharmaceutical lines where the product itself interferes with detection. Multi-frequency combination detection and a product setup that accounts for temperature, moisture, shape, salt content or frozen state are what let it run on wet, salty or frozen product instead of only on dry packaged goods. Construction is mirror-finish 304 stainless steel.

Key benefits

- Multi-frequency combination detection technology for difficult product effect
- Product setup accounts for temperature, moisture, shape, salt content or frozen state
- Conveyor speed fixed or adjustable from 5 to 50 m/min to match the line
- Mirror-finish 304 stainless steel construction for washdown areas
- Reject signal output plus optional gantry rejection for automated removal

Specification

Detection Technology	Multi-frequency combination detection
Conveyor Speed	5 to 50 m/min, fixed or adjustable
Power Supply	AC 220 V, 50 to 60 Hz
Alarm Modes	Sound/light alarm, alarm shutdown, shutdown reversal, reject signal output
Rejection	Optional gantry rejection
Conveyor Belt	Food-grade PU belt or chain plate
Construction	Mirror-finish 304 stainless steel
Operating Temperature	0 to 38°C
Operating Humidity	below 80%

2. FSD-2024SS Stainless Steel Conveyor Metal Detector

The FSD-2024SS is a full stainless steel conveyor metal detector built around an imported German control unit. It detects both magnetic and non-magnetic contaminants in bulk and packaged product, and uses a sealed stainless-steel detection coil, which is the part that normally fails first in a washdown line.

Key benefits

- Detects magnetic and non-magnetic metal contaminants alike
- Imported German control unit rather than a generic controller
- Sealed stainless-steel detection coil survives daily washdown
- Full stainless steel construction throughout
- Alarm-stop reject method halts the belt on detection

Specification

Detection	Magnetic and non-magnetic metal contaminants
Control Unit	Imported German control unit
Detection Coil	Sealed stainless steel
Transport	Conveyor
Reject Method	Alarm and stop
Construction	Full stainless steel

3. FSD-2023 Conveyor Belt Metal Detector

The FSD-2023 is the model to quote when a specification asks for numbers. It publishes a 500 x 150 mm detection window, empty-machine sensitivity of Fe 1.0 mm and non-Fe 1.5 mm, a 50 kg maximum product weight and 20 to 30 m/min belt speed, all in 304 stainless steel with a food-grade PU belt and a sealed detection coil.

Key benefits

- Published empty-machine sensitivity: Fe 1.0 mm and non-Fe 1.5 mm
- 500 x 150 mm detection window on a 2000 x 400 mm conveyor
- Handles product up to 50 kg at 20 to 30 m/min
- 304 stainless steel construction with a food-grade PU belt
- Only 0.25 kW power consumption on a standard AC 220 V supply

Specification

Detection Window	500 x 150 mm
Conveyor Dimensions	2000 x 400 mm
Overall Dimensions	2000 x 900 x 1080 mm
Height	800 mm plus or minus 100 mm
Construction	304 stainless steel
Power Supply	AC 220 V, 50/60 Hz
Power Consumption	0.25 kW
Detection Sensitivity (empty machine)	Fe 1.0 mm / non-Fe 1.5 mm
Maximum Product Weight	50 kg
Conveyor Speed	20 to 30 m/min
Conveyor Belt	Food-grade PU belt
Alarm Type	Alarm and stop reject method

4. FSD-2020S Digital Touchscreen Conveyor Metal Detector

The FSD-2020S is aimed at lines that change product often. It stores up to 12 detection parameter sets, so a changeover is a screen selection rather than a re-tune, and its automatic product-effect learning builds the setting for a new item instead of an operator guessing it. Digital signal processing on an imported chipset drives a potted detection coil.

Key benefits

- Stores up to 12 detection parameter sets for fast product changeover
- Automatic product-effect learning and memory for new items
- Multiple selectable operating frequencies to suit different product types
- Potted detection coil for durability and interference resistance
- Optional reject mechanism for automated removal

Specification

Technology	Digital signal processing with imported chips
Detection Coil	Potted, sealed construction
Display	Touchscreen interface
Product Memory	up to 12 detection parameter sets
Frequency	Multiple selectable frequencies
Conveyor Belt	Needle-free food-grade PU belt
Alarm	Sound/light alarm with automatic stop
Reject	Optional reject mechanism

5. FSD-2010SS Digital LCD Conveyor Metal Detector

The FSD-2010SS is the entry point into the FSD conveyor range: a digital LCD conveyor metal detector for packaged and bulk food inspection lines. It covers the same job as the rest of the family, inline detection of metal contamination before product leaves the line, with an LCD interface rather than a touchscreen.

Key benefits

- Inline metal contamination check on packaged and bulk food
- Digital LCD interface for straightforward operator use
- Conveyor format that drops into an existing line layout
- Part of the FSD family, so parts and service are shared across models

Specification

Type	Digital LCD conveyor metal detector
Application	Packaged and bulk food inspection lines
Detection Window	TBC - confirm with the supplier for your pack size
Conveyor Speed	TBC - confirm against your line speed
Power Supply	TBC - confirm for your site voltage

6. VXR-G2 X-Ray Food Inspection Machine

The VXR-G2 catches what a metal detector cannot: glass and ceramic down to 1.0 mm diameter alongside SUS304 balls at 0.3 mm and wires at 0.2 x 2 mm. A 210 W source works through a 0.4 mm detector over a 200 x 150 mm pass-through, at belt speeds from 10 to 60 m/min, in a full 304 stainless steel frame.

Key benefits

- Detects glass and ceramic at 1.0 mm diameter, not only metal
- SUS304 ball detection at 0.3 mm and wire at 0.2 x 2 mm
- 200 mm pass-through width and 150 mm height for a wide product range
- Belt speed adjustable from 10 to 60 m/min
- Full 304 stainless steel construction for hygiene and corrosion resistance

Specification

X-Ray Source	210 W
Detector	0.4 mm
Pass-Through Width	200 mm
Pass-Through Height	150 mm
Conveyor Speed	10 to 60 m/min adjustable
Detection, SUS304 Ball	0.3 mm diameter
Detection, SUS304 Wire	0.2 x 2 mm
Detection, Glass Ball	1.0 mm diameter
Detection, Ceramic Ball	1.0 mm diameter
Construction	Stainless steel 304
Power Supply	220 V

7. Conveyor Belt Metal Detector with Flap Reject

This conveyor detector publishes what most do not: Fe 0.5 mm, Cu 0.8 mm and SUS 1.2 mm sensitivity through a 400 x 80 mm tunnel. Phase-adapted technology cancels product effect, a DSP and microprocessor pair handles the signal, and

a self-learning function stores product settings so a changeover is a selection rather than a re-tune.

Key benefits

- Published sensitivity: Fe 0.5 mm, Cu 0.8 mm, SUS 1.2 mm
- Phase-adapted technology cancels product effect
- Self-learning stores product settings, 12 as standard and 100 optional
- Automatic flap rejection removes failed product without stopping the line
- 304 stainless construction, with 316 available

Specification

Detecting Tunnel	400 mm wide x 80 mm high, customisable
Belt Height from Ground	670 mm, customisable
Detecting Method	Electromagnetic wave
Sensitivity	Fe 0.5 mm, Cu 0.8 mm, SUS 1.2 mm
Sensitivity Degree	100 degrees
Alarm Mode	Flap reject, sound and light alarm, belt stop, other reject devices
Conveyor Speed	fixed 20 m/min or adjustable 15 to 30 m/min
Product Memory	12 products, 100 optional
Input Power	single phase 220 V AC or 110 V AC, 200 W
Construction Material	304 SUS, 316 SUS available
Machine Weight	140 kg
Language	Chinese and English by default, others customisable

8. Pipe Feed Metal Detector for Sauce and Liquid Lines

A conveyor detector cannot inspect a product that travels through a pipe. This pipe feed detector sits in the pipeline itself, checking sauce and similar pumped product for metal particles before they reach filling, which is the last point at which a contaminated batch can still be stopped.

Key benefits

- Inspects product inside the pipeline, where a conveyor detector cannot reach
- Catches metal particles before the product reaches filling
- Fits into an existing sauce production line
- Also usable in food packaging and machinery manufacturing applications
- Protects both product quality and downstream equipment

Specification

Installation	In-line, pipeline mounted
Application	Sauce and pumped food products
Pipe Diameter	TBC - confirm against your pipework
Sensitivity	TBC - confirm against your product
Reject Method	TBC - confirm at quotation
Construction Material	TBC - confirm at quotation

9. Food Safety Conveyor Metal Detection System

A complete conveyor detection system in AISI 304 stainless with profiles closed on all sides, which is the construction detail that decides whether a frame can actually be cleaned. It carries CE conformity and DDM declarations, runs 12 to 24 m/min, and supports in-process or end-of-line protection under IFS, BRC, HACCP and ISO 22000 requirements.

Key benefits

- AISI 304 stainless frame with profiles closed on all sides for cleaning
- CE Declaration of Conformity and Declaration of Manufacturer supplied
- Belt speed 12 to 24 m/min to match different food lines
- Different belt types and ejection systems available per application
- Usable in process or at end of line

Specification

Frame	Stainless steel AISI 304 / ISO 1.4301 CrNi 18/10, profiles closed on all sides
Feet	Adjustable feet standard, castor wheels available
Enclosure Rating	IP54
Height	800 mm plus or minus 100 mm, other heights possible
Belt Speed	12 to 24 m/min with belt controls STR/STL, other options on request
Motor	0.25 kW, or 0.25 kW worm gear motor
Product Weight	16 kg standard, other weights available
Power Supply	220 to 240 V AC 1ph 50/60 Hz, or 110 V AC 1ph 60 Hz
Conformity	CE Declaration of Conformity and Declaration of Manufacturer

10. VMF-Inclined All Metal Detector for Food Manufacturing

The VMF-Inclined publishes detection down to Fe 0.25 mm, with non-ferrous at 3.8 mm and SUS304 at 4.0 mm, through an aperture selectable from 100 to 1500 mm wide by 80 to 60 mm high. Its inclined conveyor is what lets it sit under a drop or feed point rather than needing a flat run of line.

Key benefits

- Fe 0.25 mm detection sensitivity, the finest published in this range
- Aperture selectable from 100 to 1500 mm wide
- Inclined conveyor fits under a drop or feed point
- Memory for 12 or 100 product types with advanced auto-learn
- Stainless steel structure meeting HACCP requirements

Specification

Model	VMF-Inclined
Detection Method	Balanced coil
Aperture Size	100 to 1500 mm width x 80 to 60 mm height, optional
Sensitivity	Fe 0.25 mm, non-ferrous 3.8 mm, SUS304 4.0 mm
Conveyor Length	1840 mm
Outfeed Height	1078 mm
Belt Width	410 mm
Belt Speed	20 m/min
Alarm Method	Beeper and stop
Power Source	220 V, 50 Hz, single phase
Dimensions	1840 x 910 x 1290 mm

Weight	260 kg
Product Memory	12 or 100 types

11. All-Purpose Food Metal Detector with Stainless Conveyor

An all-purpose food line detector in solid AISI 304 stainless with profiles closed on all sides, detecting ferrous and non-ferrous metals including stainless steel. It runs 12 to 24 m/min, stands 800 mm high plus or minus 100 mm, and ships with CE Declaration of Conformity and Declaration of Manufacturer.

Key benefits

- Detects ferrous and non-ferrous metals including stainless steel
- 100% stainless steel construction, easy to clean
- Belt speed 12 to 24 m/min for a variety of food lines
- Different belt types and ejection systems per application
- CE Declaration of Conformity and Declaration of Manufacturer supplied

Specification

Frame	Stainless steel AISI 304 / ISO 1.4301 CrNi 18/10, profiles closed on all sides
Feet	Adjustable feet standard, castor wheels available
Enclosure Rating	IP54
Height	800 mm plus or minus 100 mm, other heights possible
Belt Speed	12 to 24 m/min with STR/STL belt control, others on request
Motor	0.25 kW or 0.25 kW worm gear, stronger on request
Product Weight	16 kg as standard, other weights possible
Power Supply	220 to 240 V AC 1ph 50/60 Hz, or 110 V AC 1ph 60 Hz
Detected Metals	Ferrous and non-ferrous, including stainless steel
Conformity	CE Declaration of Conformity and Declaration of Manufacturer

12. LCD Auto-Learning Conveyor Belt Metal Detector

Automatic phase adjustment is what makes this detector usable on product that defeats ordinary machines: frozen food, meat, fish, pickled products and rice all carry a strong product effect, and the phase adjustment blocks it. Sensitivity is then set automatically per product and stored, with memory for more than 50 products.

Key benefits

- Automatic phase adjustment blocks product effect on frozen food, meat, fish, pickled goods and rice
- Intelligent setting adjusts sensitivity automatically for each product
- Memory storing detection parameters for more than 50 products
- Detects ferrous, non-ferrous and stainless steel
- SUS304 stainless construction with a removable rack for cleaning

Specification

Detection	Ferrous, non-ferrous and stainless steel
Product Effect Handling	Automatic phase adjustment
Product Memory	more than 50 products
Display	LCD touch screen, English and Chinese menus
Construction	Stainless steel SUS304, removable rack

Motor	High-grade protection motor selectable
Aperture Size	TBC - confirm against your product
Belt Speed	adjustable, confirm range at quotation

13. Food Grade Stainless Steel Metal Detector with Rejection

A stainless steel conveyor detector for food production, supplied with a rejection system so contaminated product leaves the line automatically. Conveyors can be built from non-metal materials and combined with the detector, which is what allows the detection field to stay clean of interference from the conveyor itself.

Key benefits

- Rejection system removes contaminated product automatically
- Non-metal conveyor materials available to keep the detection field clean
- Detection requirements customised to the specific metal objects of concern
- Stainless steel construction for food-industry cleaning
- Protects both the product and the consumer

Specification

Type	Conveyor metal detector with rejection
Construction	Stainless steel
Conveyor Materials	Non-metal materials available
Detection Specification	Customised to the customer's metal object requirement
Aperture Size	TBC - confirm against your product
Sensitivity	TBC - customised to the application
Reject Type	TBC - confirm at quotation