



JUNHONG ELECTRONIC&TECHNOLOGY(DONGGUAN)CO.,LTD

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Conveyor Belt Metal Detector for Foods

Model No. EJH-320



Introduction:

In the food production industry, metal is one of the most commonly found contaminant materials in food. Metal can be introduced at all stages of processing of food, as it is most commonly used in the construction of machinery, handling equipment and ancillary utensils. A metal detector for the food industry can help ensure the safety and integrity of a wide range of unpackaged, packaged or bulk goods, by identifying metal contaminants during processing or packaging and helping to ensure that they do not enter food that we eat. As part of a HACCP program, metal detection systems can be utilised to provide compliance with food safety standards, retailers' code of practice, legislation and industry guidance.



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Types of Contaminants:

There are three main groups of metallic contaminants that a food metal detector can sense:

Ferrous

Non Ferrous

Stainless Steel detection depends on the magnetic or conductive properties of the contaminant

The ability for a conventional metal detector used in the food industry to detect metallic contaminants depends upon their conductivity and magnetic permeability:

Ferrous metal contaminants are both magnetic and conductive and are easily detected.

Although they are not magnetic, Non-Ferrous contaminants are good conductors and can be detected relatively easily.

Stainless Steel foreign bodies are the most difficult to pick-up as they are usually non-magnetic and a poor electrical conductor. The ability to detect stainless steel is also hindered when the product is wet or has a high salt content.

If there are other types of contaminants (glass, calcified bone, ceramics, stone) to be detected, then an X-ray inspection system for food will offer enhanced detection capabilities.

Features:

- Phase tracking function, which can maintain the stable high-sensitivity detection ability.
- Product tracking function, which can do adjustment and compensation according to the changes of the product effect automatically.
- Auto-balanced calibration function, which can ensure the service life of the machine.
- Above 99 products can be restored in product database.
- IP65 dust and water proof.
- The performance of the conveyor belt is complied with the American food sanitation standard (FDA), it can be used for inspection of the unpacked food directly.
- Can stably work for a long time, with a special design that is suitable for a harsh production environment of strong vibration and high interference, the equipment won't miss alarm even when you tap the probe.

Specifications:

Materials: 304 grade stainless steel for detector, 201 grade stainless steel for frame, PVC/ PU white belt.

Belt length (mm): 1600mm.

Conveyor height from belt to ground: 650mm + 50mm feet adjustable, including wheels moveable.

Alarm system: buzzer / warning lights.

Flow speed: 25 m/ min fixed or 10 to 40 m / min variable.

Flow direction: from left to right or opposite(viewing control panel).

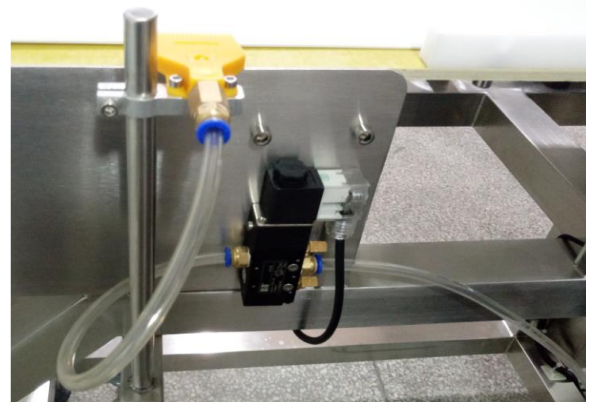
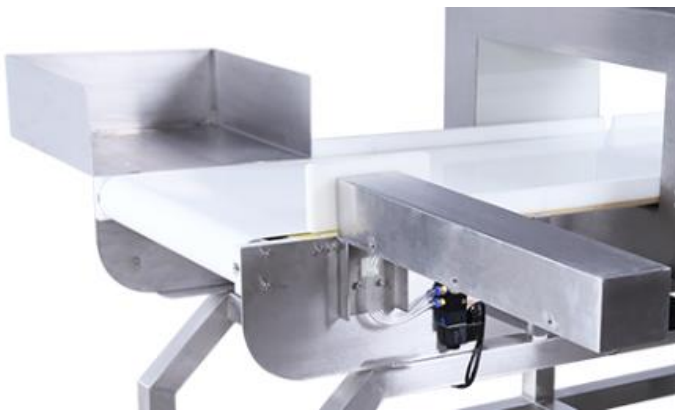
Language for operation system: English and Chinese.

Electronic source: AC110V/220V, 50/60Hz, Power: 90/120/200W.



Reject system:

- Stop on Detect Reject($\leq 50\text{KG}$) - The conveyor system stops if metal is detected and an alarm sounds, enabling the operator to remove the contaminated product.
- Pusher Reject($\leq 10\text{KG}$) - Pneumatically powered pushers divert contaminated product out of the production flow/ belt, as shown below 1st picture.
- Flap reject or Drop down Reject - This reject mechanism are typically used to remove contaminated and/or out of spec dry bulk products. Product passes through a chute which in the open position allows good product to continue through. The end flap or lift flap is triggered to divert contaminated or out of spec product out of the good product flow, as shown below 2nd and 3rd picture.
- Air jet type: NG products are blown sideways off of the line by a powerful air jet. It is ideal for small, lightweight packaged products at high speed as shown below 4th picture.



Inspection tunnel size & Sensitivity ability chart:

Opening Width	30	40	40	50	50	60
Opening Height	10	12	15	20	25	30
Ferrous	Φ0.8mm	Φ0.8mm	Φ1.0mm	Φ1.0mm	Φ1.2mm	Φ1.8mm
Non Ferrous	Φ1.0mm	Φ1.2mm	Φ1.5mm	Φ2.0mm	Φ2.0mm	Φ2.5mm
Stainless steel(304)	Φ1.8mm	Φ2.0mm	Φ2.0mm	Φ 2.5mm	Φ2.5mm	Φ3.0mm

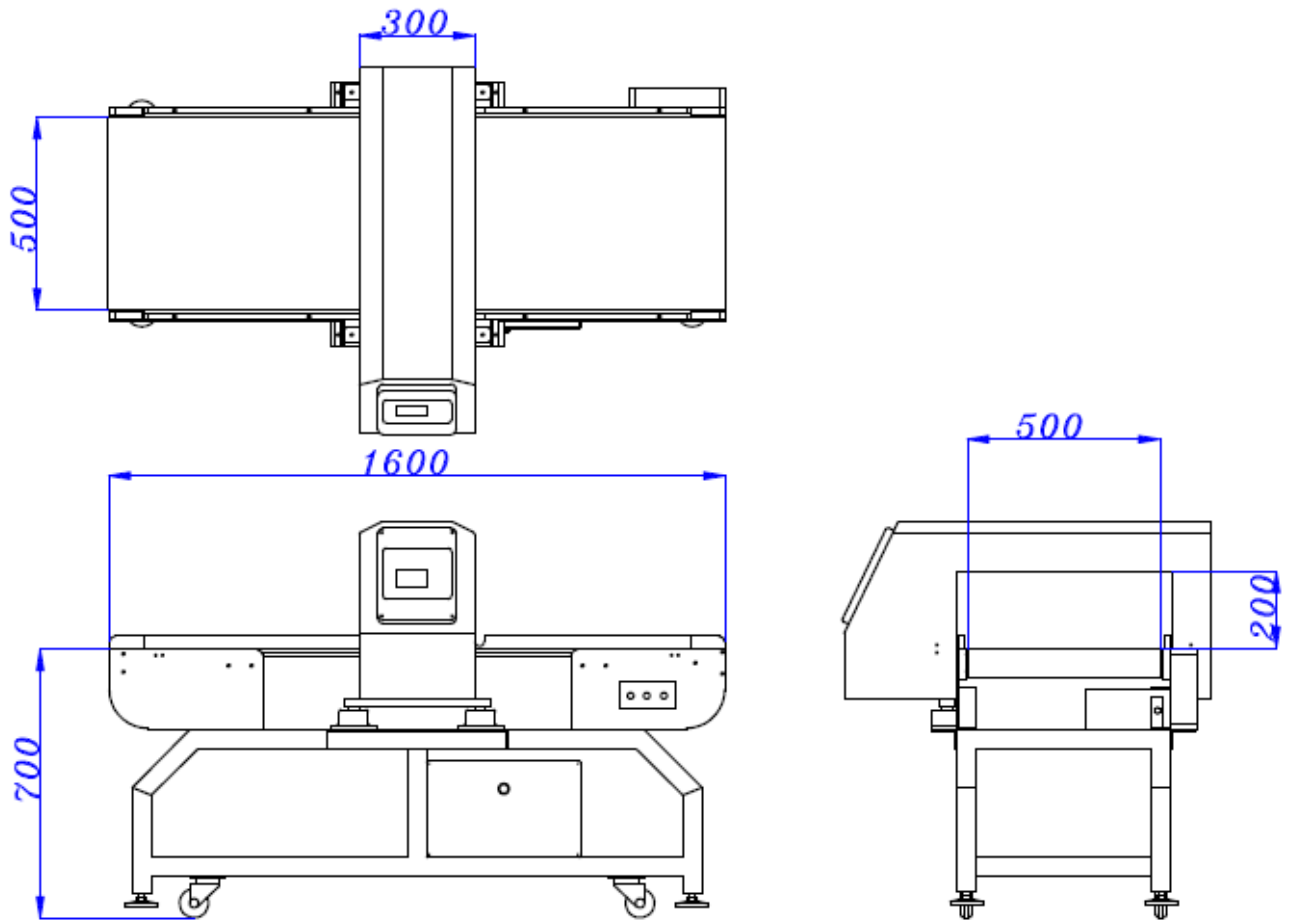
Notice: the above data is empty-loaded machine sensitivity. The real sensitivity will be lower on condition of different products being tested.



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Whole machine dimension shown as below drawing:



Metal Detector Machine with Flap Reject Dimension shown as below:

