# Conveyor Metal Detector Solution



Increase productivity

Improve product quality

Reduce manufacturing cost

---

Flexible customization

Dongguan Coso Electronic Tech Co., Ltd.

# 1. AEC500C Series Digital Intelligent Conveyor Metal Detector

AEC500C Series digital intelligent conveyor belt metal detector can be used in food,pharmaceutical, chemical, textile, garment, toy paper-making, hygienic products, electronics, renewable resources industry etc, applying to detect broken needles, iron wires, metals (such as Ferrous, Copper, Aluminum, SUS etc.) that mixed or left with products, raw materials. Using metal detector can help relative corporations pass HACCP,GMP, FDA,QS, ISO9001 certificate.



LCD screen type



Touch screen type

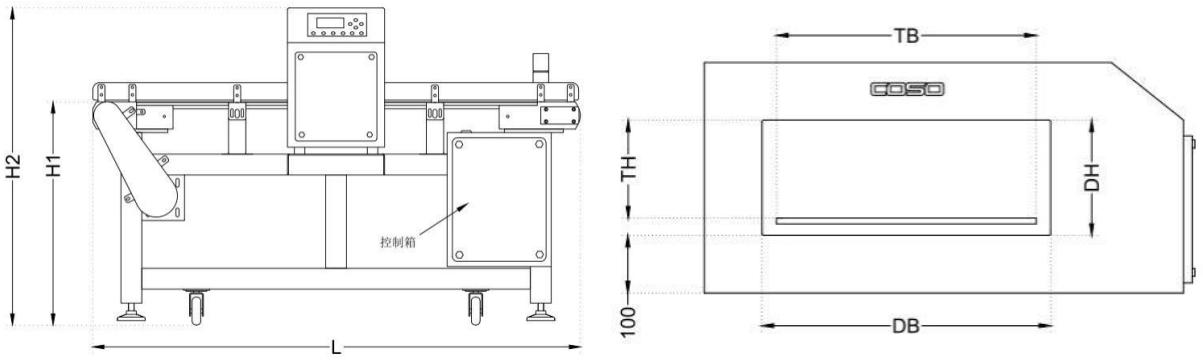
**Product Features**

1. Operating system adopts highly human-oriented and intelligent design and has the function of one-bottom self-learning. The machine can set and store product parameters automatically and precisely when the products to be detected passing metal detector according to set procedure, no need to adjust by human and is easy to operate.
2. Detector is made by COSO unique materials and manufacturing techniques, possessing high sensitivity, strong ability for anti-interference, stable performances, and life span more than 10 years.
3. Having memory function for 100 kinds of products parameters; that is, metal detector can store 100 kinds of products parameters, and once the products parameters are set, no need to adjust again.
4. Metal detector can automatically detect faults when booting and has the function of prompt, which can effectively eliminate invalid detection.
5. The whole machine adopts modular design and installation, which benefits for assembly and disassembly, having advantages of convenient maintenance and low cost for maintenance.
6. Customization can be provided according to detecting products' sizes, weight and characteristics in order to achieve best detection results.

7. The automatic conveying system, reject system and control system can be customized according to production line's features, which can enhance production efficiency.
8. Customization for waterproof, dust-proof and explosion-proof needs can be provided according to the environment of production line in order to protect usage safety

**Structure**

DB: Width of detector H1：Height from conveyor belt to the ground
DH：Height of detector H2：Height of whole machine
TB：Passing width L：Length of conveyor belt
TH：Passing height W：Height of whole machine




**Specification**

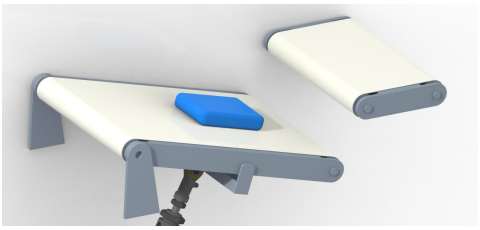
| Model | Size of Whole Machine（mm） | | | | Size of Detector（mm） | | | | Sensitivity | | Max Weight(kg) | Speed(m/s) | Power Supply | Working Environment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | H1 | H2 | L | W | DB | TB | DH | TH | Fe (mm) | SUS (mm) | | | | |
| 3008 | 700 | 850 | 1200 | 650 | 300 | 250 | 80 | 50 | 0.8 | 1.5 | 0-25kg（can be customized） | 0.25-0.6 | AC220 V±10% 50-60Hz | -20℃～50℃ Humidity below 90% |
| 3010 | 700 | 870 | 1200 | 650 | 300 | 250 | 100 | 70 | 0.8 | 1.5 | | | | |
| 3012 | 700 | 890 | 1200 | 650 | 300 | 250 | 120 | 90 | 0.8 | 1.5 | | | | |
| 3015 | 700 | 920 | 1200 | 650 | 300 | 250 | 150 | 120 | 0.8 | 2.0 | | | | |
| 4510 | 700 | 900 | 1400 | 750 | 450 | 400 | 100 | 70 | 1.0 | 2.0 | | | | |
| 4512 | 700 | 920 | 1400 | 750 | 450 | 400 | 120 | 90 | 1.0 | 2.0 | | | | |
| 4515 | 700 | 950 | 1400 | 750 | 450 | 400 | 150 | 120 | 1.0 | 2.0 | | | | |
| 5010 | 700 | 900 | 1500 | 850 | 500 | 450 | 100 | 70 | 1.0 | 2.0 | | | | |
| 5012 | 700 | 920 | 1500 | 850 | 500 | 450 | 120 | 90 | 1.0 | 2.0 | | | | |
| 5015 | 700 | 950 | 1500 | 850 | 500 | 450 | 150 | 120 | 1.0 | 2.0 | | | | |
| 5020 | 700 | 1000 | 1600 | 850 | 500 | 450 | 200 | 170 | 1.5 | 2.5 | | | | |
| 5025 | 700 | 1050 | 1600 | 850 | 500 | 450 | 250 | 220 | 1.5 | 2.5 | | | | |
| 5030 | 700 | 1100 | 1600 | 850 | 500 | 450 | 300 | 270 | 2.0 | 3.0 | | | | |
| 6030 | 400 | 800 | 1800 | 950 | 600 | 550 | 300 | 270 | 2.5 | 3.5 | 25-200kg（can be customized） | 0.25-0.6 | AC380 V±10%, 50-60Hz | 0-40℃ Humidity below 80% |
| 6035 | 400 | 850 | 1800 | 950 | 600 | 550 | 350 | 320 | 3.0 | 4.0 | | | | |
| 6040 | 400 | 900 | 2000 | 950 | 600 | 550 | 400 | 370 | 3.5 | 4.5 | | | | |
| 6050 | 400 | 950 | 2000 | 950 | 600 | 550 | 500 | 470 | 4.0 | 5.5 | | | | |

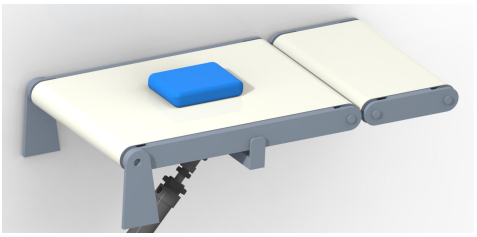
**Notes**

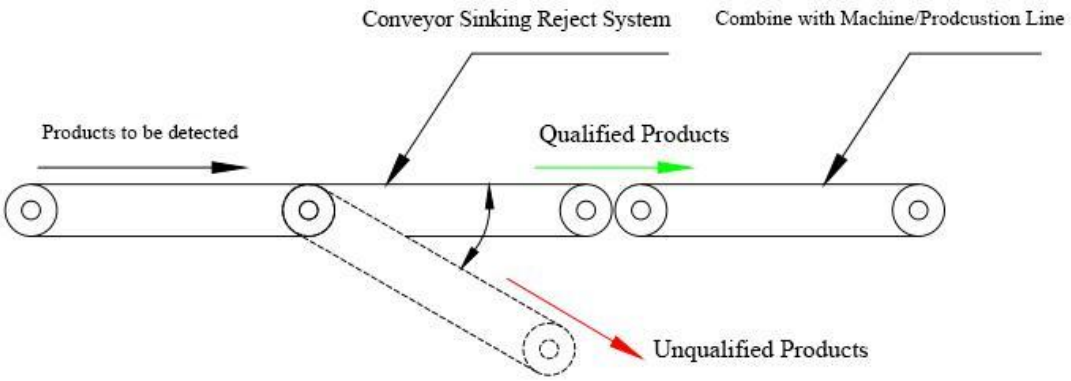
1. All the sensitivity parameters above is on the basis of the test card detected on conveyor belt without carrying any products; while the actual sensitivity will be affected by the product's features and working environment.
2. Above technical parameters are some ordinary models, if you want to know more different technical parameters, please consult our sales.
3. Products will constantly upgrade; please refer to our newest technical parameters for changes on parameters.

## 1.1 Metal detector with sinking conveyor rejection system







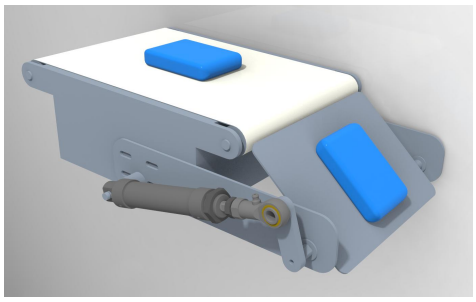


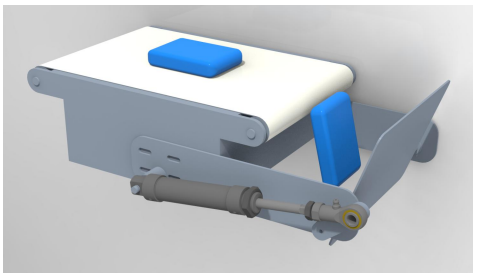

**Application**
Suitable for lightweight products; mainly used in bakery industry for online detection. Metal detector can be customized according to special requirements of production line's features. Suitable for cookies, paste, custard cake industry.

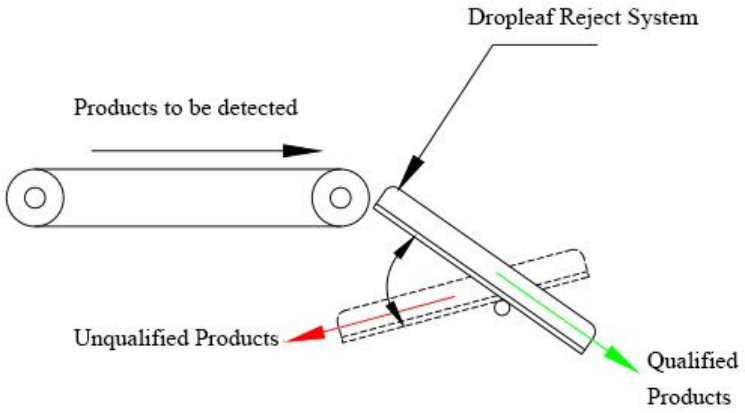
**Product Features**
Special design of small roller and sinking conveyor can realize seamless connection with production line, which is suitable for connection between middle and other production line. Also, it helps moving order eliminate influence from conveyor and rejector, which can realize full automation on online metal detection and rejection on unqualified products.

## 1.2 Metal detector with flap rejection system







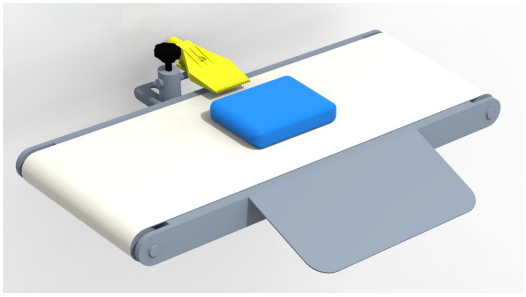


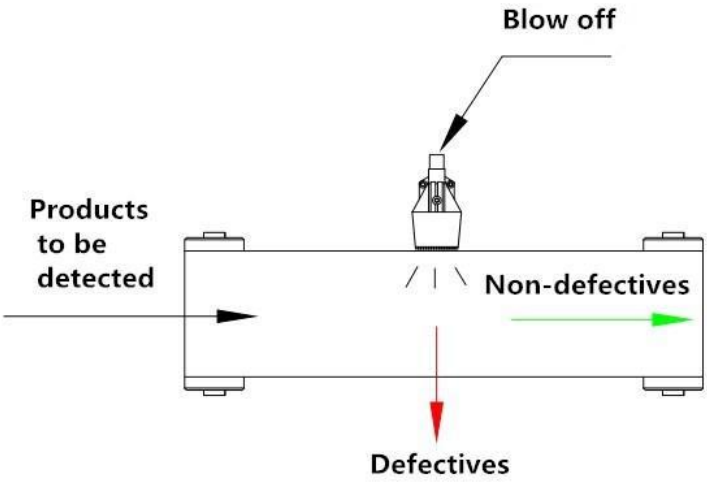

**Application**
Suitable for bulk, lightweight and easy-falling products; mainly applied to food, pharmaceutical, toys industry etc for automatic online metal detection.

**Product features**
Metal detector adopts air-operated flap reject system which can combine with production lines realizing full automation on online metal detection and automatic rejection on unqualified products.

## 1.3 Metal detector with air blow rejection system





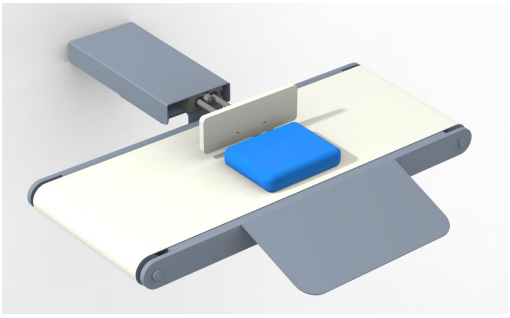


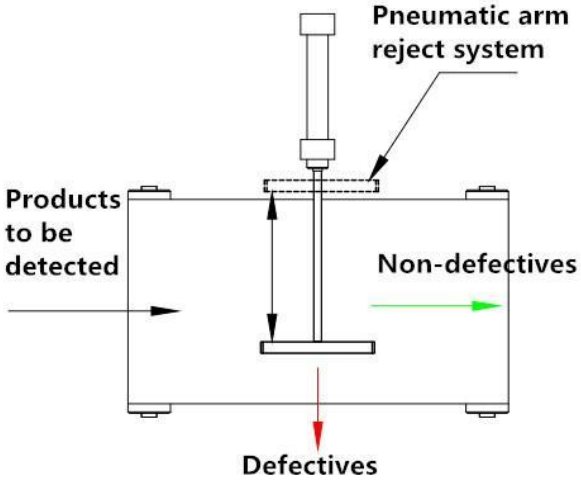

**Application**
It is suitable for the products with high speed and light weight. And it is mainly used in food, pharmaceutical, toys, hygienic products, health care products and other industries online metal detection.

**Product features**
The design of the pneumatic turnover plate can be connected with the production line, which can realize the automatic on-line metal detection and the automatic elimination of the bad products.

## 1.4 Metal detector with pneumatic pusher rejection system








**Application**

It is suitable for box products, and the weight is less than 10kg. It is mainly used in food, pharmaceutical, chemical, toys, medical supplies and other industries online metal detection, such as a box of drinks and a box of biscuits etc.

**Product features**

The design of the pneumatic arm can be connected with the production line, which can realize the automatic on-line metal detection and the automatic elimination of the bad products.

## 2. AEC500C Series Ramp Type Metal Detector





For laundry industry





For recycled material industry

# 3. AMC500 Series Metal Detector for Foil Aluminum Packing

AMC500 metal detector specializes for non-Fe metallic film packing products, like foil aluminum, aluminum film, using magnetic induction principle to detect metallic impurities in aluminum foil packing food products. But this model machine can only detect out ferrous metal.




**Application**
Suitable for foil aluminum packing products, like chocolate, candy, instant noodles, infant rice flour and milk powder etc, to detect metallic impurities.

**Features**
1. Adopts Japanese technology, with high sensitivity.
2. Human-friendly design of operating manual, with easiness to operation.
3. Using sound and light alarm, or automatically reverse; easy to use and reliable.
4. Can be customized according to size, weight and features of products, in order to achieve best detection results.
5. The whole machine adopts SUS304, stable and reliable, dustproof and easy to clean.

**Specification**

| Model | AMC5005 | AMC5010 | AMC5012 | AMC5015 | AMC5020 | AMC5025 | AMC5030 |
|---|---|---|---|---|---|---|---|
| Tunnel Height | 50 mm | 100 mm | 120 mm | 150 mm | 200 mm | 250 mm | 300 mm |
| Tunnel Width | 400 mm | 400 mm | 400 mm | 400 mm | 400 mm | 400 mm | 400 mm |
| Sensitivity(FeΦ≥) | 0.8 mm | 1.0 mm | 1.2 mm | 1.5 mm | 2.0 mm | 2.5 mm | 3.0mm |
| Working Environment | -10℃～40℃； Humidity below 90% | | | | | | |

**Notes**
1. All the sensitivity parameters above is on the basis of the test card detected on conveyor belt; while the actual sensitivity will be affected by the product's features and working environment.
2. Above technical parameters are some ordinary models, if you want to know more different technical parameters, please consult our employees.
3. Products will constantly upgrade; please refer to our newest technical parameters for changes on parameters.

# 4. SEC Series Split Metal Detector

SEC series digital intelligent online metal detector can eliminate signal interference furthest from products themselves (like ore, coal, chemical, renewable resources, waste etc.) and conveyor belt itself by using DSP digital intelligent technology, at the same time, ensuring conveyor and products (like ore, coal, chemical, renewable resources, waste etc.) to pass detector, also can achieve perfect detection results.



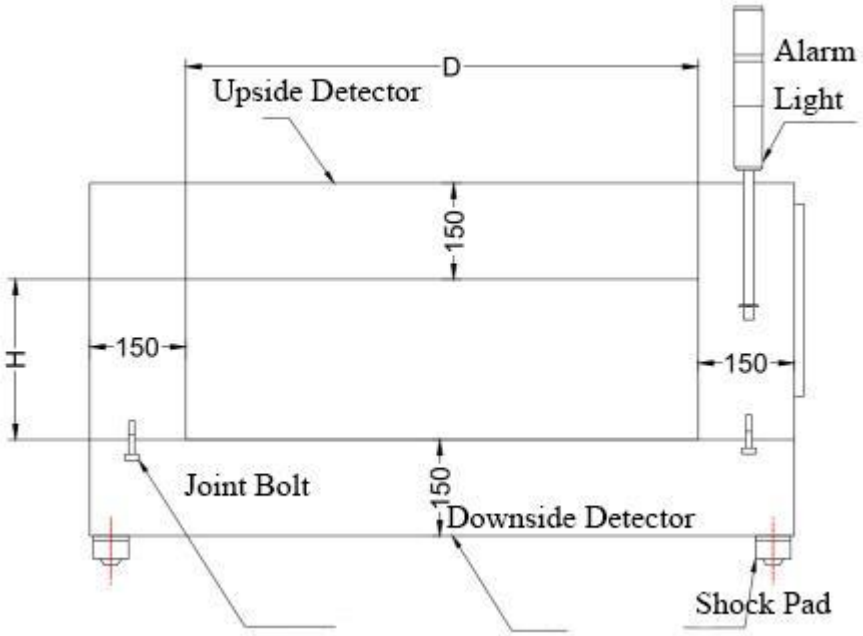
**Application**

Plastic, building material, wood, paper making, coal, textile, mines, cement, thermal power, chemical, chemical, waste processing and renewable resources industry etc., it is used for detecting bulk metallic impurities left or mixed with products, which can help avoid damage to working machines.

**Features**

1. Using DSP digital intelligent technology deals with detection signal and interference signal, also can effectively and automatically control interference effects, possessing high detection sensitivity and strong anti-interference ability.
2. Having function of self-learning and memory, metal detector can automatically learn and memory products' features; effectively eliminate "metal effect" that ore, coal itself possesses, besides, it can memory products' parameters up to 100 kinds.
3. Adjustment of products' parameter is highly digital and easy to operate. By one-bottom self-learning can precisely set parameters automatically, no need for human to adjust and avoid complex debugging.
4. Metal detector has dialogue type LCD screen, menu, thin film switch bottom; convenient for operation.
5. Metal detector is waterproof, anti-vibration and has strong adaptability to environment and temperature changes.
6. The conveyor belt generally will be installed horizontally, but it can be applied to different angle according to your request.
7. The detector head can be separated, but the belt do not need to be cut.
8. When the impurities is detected,the metal detector will send the stopping signal from the intermediate relays to the conveyor belt system.

## Structure




## Technical Parameter

| Name | Parameter |
|---|---|
| Detecting Height | 200mm (over 200mm, can be customized) |
| Detecting Width | 500mm (over 500mm, can be customized) |
| Sensitivity | Decided by the width and height of tunnel, refer to below sheet |
| Voltage | 120W |
| Alarm | Sound and light, output signal |
| Working Environment | -10℃～40℃; Humidity below90% |

## Specification

| Tunnel Width | Tunnel Height | Suitable Conveyor Width | Passing Height | Sensitivity | |
|---|---|---|---|---|---|
| 1000mm | 200mm | 800mm | 150mm | FeΦ≥2.6mm | SUSΦ≥4.0mm |
| 1000mm | 250mm | 800mm | 200mm | FeΦ≥3.5mm | SUSΦ≥5.3mm |
| 1000mm | 300mm | 600mm | 250mm | FeΦ≥4.2mm | SUSΦ≥6.3mm |
| 1000mm | 350mm | 600mm | 300mm | FeΦ≥4.5mm | SUSΦ≥6.5mm |
| 1000mm | 400mm | 600mm | 350mm | FeΦ≥5.2mm | SUSΦ≥7.8mm |
| 1000mm | 450mm | 600mm | 400mm | FeΦ≥6. 1mm | SUSΦ≥9.2mm |
| 1000mm | 500mm | 600mm | 450mm | FeΦ≥6.8mm | SUSΦ≥ 10.3mm |
| 1200mm | 200mm | 1000mm | 150mm | FeΦ≥2.9mm | SUSΦ≥4.4mm |
| 1200mm | 250mm | 1000mm | 200mm | FeΦ≥3.8mm | SUSΦ≥5.7mm |
| 1200mm | 300mm | 1000mm | 250mm | FeΦ≥4.5mm | SUSΦ≥6.8mm |
| 1200mm | 350mm | 800mm | 300mm | FeΦ≥5.0mm | SUSΦ≥7.5mm |
| 1200mm | 400mm | 800mm | 350mm | FeΦ≥5.6mm | SUSΦ≥8.4mm |
| 1200mm | 450mm | 800mm | 400mm | FeΦ≥6. 1mm | SUSΦ≥9.5mm |
| 1200mm | 500mm | 800mm | 450mm | FeΦ≥6.8mm | SUSΦ≥ 10.2mm |

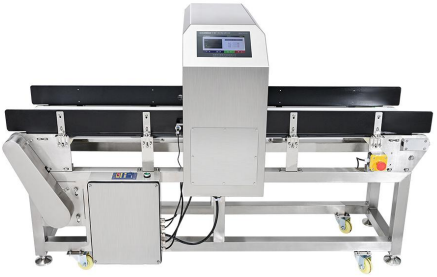
| | | | | | |
|---|---|---|---|---|---|
| 1400mm | 200mm | 1200mm | 150mm | FeΦ≥3.2mm | SUSΦ≥5.5mm |
| 1400mm | 250mm | 1200mm | 200mm | FeΦ≥4. 1mm | SUSΦ≥6.5mm |
| 1400mm | 300mm | 1200mm | 250mm | FeΦ≥5.0mm | SUSΦ≥7.5mm |
| 1400mm | 350mm | 1000mm | 300mm | FeΦ≥5.4mm | SUSΦ≥8.5mm |
| 1400mm | 400mm | 1000mm | 350mm | FeΦ≥6.3mm | SUSΦ≥9.5mm |
| 1400mm | 450mm | 1000mm | 400mm | FeΦ≥7.7mm | SUSΦ≥ 11.5mm |
| 1400mm | 500mm | 1000mm | 450mm | FeΦ≥ 8.6mm | SUSΦ≥ 13.0mm |
| 1600mm | 400mm | 1200mm | 300mm | FeΦ≥7.0mm | SUSΦ≥ 12.5mm |
| 1600mm | 500mm | 1200mm | 400mm | FeΦ≥ 8.0mm | SUSΦ≥ 13.5mm |
| 1600mm | 600mm | 1200mm | 500mm | FeΦ≥9.0mm | SUSΦ≥ 15.5mm |
| 1600mm | 700mm | 1200mm | 600mm | FeΦ≥ 10.0mm | SUSΦ≥ 17.5mm |
| 1600mm | 800mm | 1200mm | 700mm | FeΦ≥ 11.0mm | SUSΦ≥ 18.5mm |
| 1600mm | 900mm | 1200mm | 800mm | FeΦ≥ 12.0mm | SUSΦ≥21.0mm |
| 1800mm | 400mm | 1400mm | 300mm | FeΦ≥ 8.0mm | SUSΦ≥ 12.0mm |
| 1800mm | 500mm | 1400mm | 400mm | FeΦ≥ 10.0mm | SUSΦ≥ 15.0mm |
| 1800mm | 600mm | 1400mm | 500mm | FeΦ≥ 12.0mm | SUSΦ≥ 18.0mm |
| 1800mm | 700mm | 1400mm | 600mm | FeΦ≥ 14.0mm | SUSΦ≥21.0mm |
| 1800mm | 800mm | 1400mm | 700mm | FeΦ≥ 16.0mm | SUSΦ≥24.0mm |
| 1800mm | 900mm | 1400mm | 800mm | FeΦ≥ 18.0mm | SUSΦ≥27.0mm |
| 1800mm | 1000mm | 1400mm | 900mm | FeΦ≥20.0mm | SUSΦ≥40.0mm |
| 2000mm | 400mm | 1600mm | 300mm | FeΦ≥9.0mm | SUSΦ≥ 18.0mm |
| 2000mm | 500mm | 1600mm | 400mm | FeΦ≥ 11.0mm | SUSΦ≥25.0mm |
| 2000mm | 600mm | 1600mm | 500mm | FeΦ≥ 13.0mm | SUSΦ≥30.0mm |
| 2000mm | 700mm | 1600mm | 600mm | FeΦ≥ 15.0mm | SUSΦ≥33.0mm |
| 2000mm | 800mm | 1600mm | 700mm | FeΦ≥ 17.0mm | SUSΦ≥38.0mm |
| 2000mm | 900mm | 1600mm | 800mm | FeΦ≥ 19.0mm | SUSΦ≥43.0mm |
| 2000mm | 1000mm | 1600mm | 900mm | FeΦ≥21.0mm | SUSΦ≥47.0mm |
| 2200mm | 400mm | 1800mm | 300mm | FeΦ≥ 10.0mm | SUSΦ≥25.0mm |
| 2200mm | 500mm | 1800mm | 400mm | FeΦ≥ 12.0mm | SUSΦ≥30.0mm |
| 2200mm | 600mm | 1800mm | 500mm | FeΦ≥ 14.0mm | SUSΦ≥35.0mm |
| 2200mm | 700mm | 1800mm | 600mm | FeΦ≥ 16.0mm | SUSΦ≥40.0mm |
| 2200mm | 800mm | 1800mm | 700mm | FeΦ≥ 18.0mm | SUSΦ≥45.0mm |
| 2200mm | 900mm | 1800mm | 800mm | FeΦ≥20.0mm | SUSΦ≥50.0mm |
| 2200mm | 1000mm | 1800mm | 900mm | FeΦ≥22.0mm | SUSΦ≥55.0mm |
| 2400mm | 400mm | 2000mm | 300mm | FeΦ≥ 12.0mm | SUSΦ≥30.0mm |
| 2400mm | 500mm | 2000mm | 400mm | FeΦ≥ 14.0mm | SUSΦ≥35.0mm |
| 2400mm | 600mm | 2000mm | 500mm | FeΦ≥ 16.0mm | SUSΦ≥40.0mm |
| 2400mm | 700mm | 2000mm | 600mm | FeΦ≥ 18.0mm | SUSΦ≥45.0mm |
| 2400mm | 800mm | 2000mm | 700mm | FeΦ≥20.0mm | SUSΦ≥50.0mm |
| 2400mm | 900mm | 2000mm | 800mm | FeΦ≥22.0mm | SUSΦ≥55.0mm |
| 2400mm | 1000mm | 2000mm | 950mm | FeΦ≥24.0mm | SUSΦ≥60.0mm |

**Notes**

1. All the sensitivity parameters above is on the basis of the test card detected onconveyor belt; while the actual sensitivity will be affected by the product's features and working environment.
2. Above technical parameters are some ordinary models, if you want to know more different technical parameters, please consult our employees.
3. Products will constantly upgrade; please refer to our newest technical parameters for changes on parameters.

# Company Profile

Dongguan Coso Electronic Technology Co.,Ltd, established in 2005, is located in Dongguan city, Guangdong province where manufacturing industry is developed fast and the transportation is very convenient. We specialize in manufacturing professional detection equipment which includes industrial metal detector, metal separator, dynamic checkweigher and X-ray inspection system.
We have a lot of experience in international trade and our products have been exported to over 80 countries around the world.
All of our products can be customized and we always hope to achieve a win-win situation with our clients.



Metal detector



Metal separator



Checkweigher



X-ray inspection system

Dongguan Coso Electronic Tech Co., Ltd
Address: No. 9, Yinkai West Road, Dongcheng District, Dongguan, Guangdong , China
Post code: 523500
Contact: Mia Luo
Mobile/WeChat: +86 15549437914
WhatsApp: +852 53152156
Email: mia@cosoar.com