Food safety metal detector equipment

operating instruction

Model : F500QD



1. Signal detection circuit uses a two-way merger of technology, with high sensitivity and high anti-interference ability.

2. Signals with a dual function. When the metal has passed, the signal indicator will be based on the size of the metal show different induction intensity.

3. . DSP digital signal processing circuit by the finish, easy adjustment, stable and reliable.

4. Effect of regulatory function has the product, Such as sub products, sugar products, salt content of food, will have a similar metal signal to the metal detector.Effect of this product will affect the testing results, , through this function to reduce the effect of Product to Detect better results.

5. Function to prevent undetected. When there is a lot of metal signal through, the will automatically apparatus detect signal the frequency, implementing agencies at the time action will not have undetected.

6. When there is no detection of objects through, the work equipment in a sleep state, Objects only through testing to be valid.

Production line can be connected with supporting the use of, the 7. implementation of automatic detection pipeline.

8. Monitor the use of sound and light alarm, at the same time, exclude or automatically shutdown, the use of an extremely convenient and reliable operation.

### Warranty:

1. Since the date of purchase, sales contract and receipt by the invoices or provided by the company can enjoy one year free guarantee service.

 $2_{\text{N}}$  The situation does not belong to free warranty scope:

According to the requirements for user operation, natural disaster, improper safekeeping of the damage.

Without supplier agrees, disassemble the damage. Manufacturer (suppliers) service hotline:

USER UNIT	PHONE	
ADDRESS	ZIP CODE	
PRODUCT TYPE	PRODUCT SERIAL UMBERPRODUCT	
SAL UNIT	CONTACT PERSON	
ORDER DATE		
:SERVICE RECORD		

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7.2 . If users need exchange fuse, etc, must be cut without elements of electrical power to avoid shock.

7.3. Engaged in electrical repairs, must be qualified professionals, in order to ensure the security of person.

Execution standard

This product 320683GHE Q / -- 2001 standard

Added operations description

The metal detector probe fixed four steel screw "1", transportation and handling should be fixed tightly. Under normal use, should be testing four steel screw "1" with nylon fastening screw, need not, loosen, to ensure the probe can be good damping performance and stability.

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9. Through the automatic identification language broadcast technology, the

machine can judge mistake by itself control the improper ope-ration.

Detect window height	100 mm	120m m	150m m	180m m	200m m	250m m	300m m	Metal type
sensitivity (mm)	0.6	0.8	1.2	1.3	1.5	2.0	2.5	iron
	1.5	2.0	2.2	2.5	3.0	4.0	5.0	stainless steel
	1.2	1.5	1.8	2.0	2.2	2.5	3.0	lead, aluminum, cop per
Detect window width	450 mm							
Airframe materials	All stainless steel, machine weight 200KG							
The use of power	220V 50Hz							
power	120W							
Transmission speed	20-25m/min							
Alarm method	Sound and light alarm, and automatically shutdown, Sensitivity: Free to adjust.							

## **Product Application:**

Our products are mainly used in food industry production materials, packaging materials and finished goods and the metal impurity to food safety testing into circulation market needs, suitable for all kinds of materials (flour, stuffing, sauce, coffee, candy, cakes, cookies, sausage, meat products, fruit and

vegetable products, and all kinds of small food),

Other applications including toys (software toys, plush toy, plastic toys, clothing, bedding, knitting and weaving, cement, chemical, beverage, leather, textile, paper, plastic, Chinese traditional medicine, wood processing, smashing processing industries, used to detect lost in all kinds of metal materials or products sundry (such as iron, copper, aluminum, lead and tin, stainless steel etc.).

### Instructions

Metal detector operating instructions

Respected customers, before use the metal detector, please read instructions carefully.

Correct installation:

Machine must be installed on a flat on the ground, adjust smooth landing support four frame, only moxianglun should leave the ground.

Electronic relay damage, or integrated block damage With the contact, mail

### accessories

Fault phenomena	Failure causes	Eliminating methods
Can't start	Fuse according to wring or damage to the operation	Replacing the fuse the electrical box, check break, change the button.
When starting cut the fuse	Belt between the plate and have accumulated water causes belt and plate adhesive	According to the maintenance of processing, with the hand, make the belt conveyor belt up with plate.
When placing objects appear alarm phenomenon	Unstable frame, Plate fixed screw loose, Improper operation, overexertion	Adjustable flat feet, solid tight all screw, light operation
Do not run without alarm motor	The conveyor belt metal sundry, Belt too loose, collision below the window probe, Belt and plate collision with sundry, probe.	Check cleared the adjusting screw adjusting, tensioner belt, Check cleared.
Don't run after startup motor, touch the probe without any warning	Unplug a contact, cause circuit; Electrical wire malfunction	To insert plug, still can't ,again 1 $\sim$ 2 times can notice sent repair factory
Boot, motor is not running, frontier alarm phenomenon	Circuitsocketcontactundesirable,Afaultcircuitcomponents.	The electrical box cover board, loosen setscrew, insert, Notice the contact repair.
Boot, motor running, alarm, but can't stop automatically phenomenon	Electronic relay damage, or integrated block damage	With the contact, mail accessories

# safe use

7.1 Metal detectors plug single-phase 220V (ac) three core type, socket, and must be matching up there. (zero ground according to the requirements of local electric power sector security wiring way),

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Boot, motor is not running, frontier alarm phenomenon Circuit socket contact undesirable, A fault circuit components. The electrical box cover board, loosen setscrew, insert, Notice the contact repair.

Boot, motor running, alarm, but can't stop automatically phenomenon

## 二、Boot

The electrical box control panel two sensitivity to scale  $5 \sim 8$  position, turn on the power, the press on the control panel of green "power" button, wait for a few seconds ammeter scale returns pointer with any instructions from the scale and then press the red "run" button, the normal operation of machine. Sensitivity adjustment

1. The detection sensitivity, namely for precision.

 $2_{\text{N}}$  Metal detector sensitivity test principle.

According to international and national regulation: sequential cases of ferromagnetic metal detector (iron, steel, metal impurity, etc), to determine if flexion-extension (Fe) radiographs iron ball represented, Detection of the ferromagnetic metal impurity (stainless steel, copper, aluminum, lead, etc.) to detect stainless steel ball (SUS). Two metal are sure to unified standard for the ball.

 $3_{\text{N}}$  The detection sensitivity of nominal detector are measured in empty unit of sensitivity.

4. The detection sensitivity of nominal detector in different conditions and environment, different change.

< 1 >detecting window height: the detection sensitivity with window height increased.

< 2 >detection a different object: without aluminum foil packing etc sensitivity different items.

< 3 > the different condition: detection LengDongPin, salted water sensitivity, etc, the products are different.

5. Sensitivity of precision

< 1 > should according to the customer request to be items, packaging, size, setting up reasonable sensitivity.

< 2 >sensitivity high sensitivity to adjust knob scale line that values from 0 precision calibration. Sensitivity to 10 gradually raised, the numerical test that higher accuracy can be detected by the metal impurity particles smaller.

Common fault handling

1, control panel ammeter scale not return full pointer

With small screwdriver adjustment holes in the electrical box, transfer, potentiometer pointer to scale under 50.

2. Motor doesn't work, the detection probe not produce false-negatives, motor rotation after false-negatives.

< 1 > check whether fixed plate, screw loose loose, please if tighten.

< 2 > conveyor belt is not clean surface, wipe with clean towel positioning alarm wipe down. When necessary.

< 3 > full height, ammeter, motor not return cannot adjust rotation detection

4.2.6.6 If the machine in detect abnormal noise, immediately stop check, trouble-shooting after testing.

4.2.6.7 Machine by vibration or power fluctuations, and occasional alarm phenomenon, is a normal phenomenon, is not fault.

4.2.6.8 Each finished testing should be timely press the green button, "power" to plug, cut off power supply.

### 五、 Maintain

5.1 After each test, coping conveyor belt, probe for maintenance, cleared eyewinker machine, special attention to probe the window under surface plate with belt between don't allow any impurities.

5.2 When cleaning, forbid water detector probe, "electrical boxes, motor, keep dry.

5.3 When long time no use or summer humidity too big, must be used towel, belt on the electrical box in the accumulation of dry vapor before, just can boot.

5.4 Regular check on the machine moving part of the solid, if there be tighten screw loose.

# 六、Troubleshooting and maintenance

Trouble-shooting must confirm in cut off power supply situation, excluding electric fault should have the corresponding qualifications electrical 10 personnel.

4.2.5Sensitivity of the check

Random with sensitivity test block, put in the operation of the conveyor belt, adjust knob, the sensitivity to two blocks through probe can be normal alarm detector sensitivity, said check properly.

4.2.6 detection

4.2.6.1 The normal random testing, which will bring sensitivity test pieces and put on the carousel, such as normal alarm, enter the formal test operation.

4.2.6.2 In the testing process, must every hour on sensitivity to check, machine, found in normal, shall be immediately stop machine failure detection, trouble-shooting, to check the sensitivity and confirm the machine, then the normal fault detection, during inspection items should be inspected already, ensure no leak phenomenon.

4.2.6.3 When the test is placed, the operator should be light and action items should not touch the probe, prevent to produce vibration machine false-alarm.

4.2.6.4 Testing, testing to produce the goods, should be reinspected once again, still appear alarm, was proved in metallic substances that contains items shall be cleaned out again, until no alarm.

4.2.6.5 By inspection items shoulds not be too big, cannot exceed collision detection, If hit will produce error alarm detector.

Probes produce false-negatives failure by professional adjustment.

## -, overview

Our company specially for food, toys, clothing industry development of the design of automatic conveyer type metal detector, widely used in frozen foods, aquatic products, pasta pastry, convenient food, medicines, toys, clothing, footwear, etc, detection in raw material or product leakage of stainless steel, iron, copper, lead, food industry etc common metal impurity/in effective safeguard people's health and safety exports will play a positive role, etc.

Automatic conveyer metal detector, adopts advanced technology, high sensitivity, stability testing and strong anti-jamming. Food industry for the stainless steel materials, metal detector, appearance is beautiful and waterproof, rust and convenient for daily cleaning. The conveyor belt with food contact with the food, the FDA and UDDA hygiene standards.

This series can be used metal detector, according to the actual needs of unit configuration transmission speed stepless speed regulation of unqualified or automatically remove device. Model and main technical parameters 2.1 Model Metal detector automatic transmission 2.2 Main technical parameters Metal detector technology parameter table

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Model Detection size(mm) Detection sensitivity Applicable scope Structure characteristics

Detecting window height Effective detection width Fe(  $\oint$  mm)iron ball~steel ball 304Sus( $\oint$  mm)304~306 Metal detector automatic transmission 300 440 2.0~2.5 3.0~3.5 All kinds of food, fruit, aquatic products and cakes, medicine, etc Stainless steel structure

250	440	1.5~2.0	2.5~3.0
200	440	1.2~1.5	2.3~2.5
150	440	1.0~1.2	2.0~2.3
100	440	0.8~1.0	1.5~2.0

2.3 Sensitivity adjustment Iron and steel magnetic metal (such as a two-pronged sensitivity) respectively, adjustable according to need.

2.4 Alarm method Lighting and sound and alarm, and automatic shutdown.

2.5 Power supply: AC 220V 50HZ Power: 140W

2.6 Dimension:  $1660(L) \times 760(W) \times 1100(H)mm$ 

### Usage and operation procedures

### .Installation and adjustment

4.1.1 Testing ground, should be placed on flat smooth, if not adjust smoothly four feet, make the screws, four feet four screws are smooth, lock nut.

### 4.1.2 Adjust conveyor belt

Belt conveyor are usually in the middle of the plate, before they leave the factory has been tuned. After a period of into the room after the operation, conveyer belt position may deviate from around. With hex wrench, turning rack end on the Allen screw conveyor belt, which side, then turn the adjusting screw rotation, make the belt, or turn zhang, opposite the adjusting screw conveyor belt is flabby, every time adjustable volume and adjustment.

4.2 Usage and operation procedures

4.2.1 Before starting, should check detector probe, conveyor belt, underneath, without sundry, tools, such as there should be removed.

4.2.2 Boot: the two sensitivity to the knob, any position, turn on the power among the control panel, click on the "green light" button, green power machine has explained, and then click "red" button, the machine is running normally.

4.2.3 Stop: press the green button "power" panel, machine downtime.

4.2.4 Sensitivity adjustment

Low sensitivity to adjust knob scale line instructions marking, the numerical value specified, higher sensitivity. Should be according to the quality of the goods, packaging, customer requirements, set sensitivity to achieve safety requirements.