

**使 用 前 請 詳 細 閱 讀**

**PLEASE READ CAREFULLY  
BEFORE USING**

**操 作 手 冊**

**OPERATING MANUAL**

**ON-688CD II**

**連續式檢針機**

**CONTINUOUS NEEDLE DETECTOR**

**(CONVEYOR TYPE)**

## 1. Specification:

MODEL	ON-688CD II
Head of detection	Single head
Voltage	Single phase AC220V 50Hz /60Hz
Rate	< 140W
Detective height ( mm )	100 mm (200mm)
Detective width ( mm )	600 mm
Detective capability of Iron ball ( mm )	Φ1.0 (Φ1.5)
Sensitivity adjustment	1-10 steps to adjust
Speed of conveyor	30 m/min
Detection method	Detected by magnet
Alarm	Automatic buzzer and alarm lamp, the conveyor will stop or return.
Dimension LxHxW (mm)	1650x1040x920
Weight (Kg)	220kg

## 2. Part of direction:

### ■ Power control box

1. **Power plug:** Plug in a good condition ground wire, should be let the voltage and power connects well.

### ■ Control Panel

1. **POWER:** Power switch, press it to connect the power and the red pilot light will flash.
2. **AUTO RETURN**
3. **PHOTO SENSOR SWITCH:** "ON". It means the detected matter be able to blindfold the infrared rays, so the machine can detect well. If the detecting height is under 15mm or it is transparent or the light is leaking out which unable to blindfold the infrared rays. Please let the switch in "OFF", and the machine is in working situation. Please avoid the interference from outside environments.
4. **AUTO START:** Machine will be started automatically.
5. **Counter:** 6 units appeared. The principle of detection is when detective matter blindfolds the infrared rays once that counter will accumulate one. If

the height of detective matter is under 15mm or it is transparent or the light is leaking out. The counter cannot work normally. It will appear qualified counting numbers and disqualified will not count. The counter has the lithium battery. The life of use is 10 years (25° C). The counter of button“0”, “LOCK” can prevent the button be touched. Press right button of counter is “ON” counter will run. And “OFF” will stop the counter running.

6. **DETECT LOCATION:** The position of 9 is showing window. If the detective matters pass the tunnel that the lamp will be lamp on correspondent place. (The detector which detecting foremost will flash the light.) If there are some lights flashing regularly. It means there may have some dust interfere the machine. It needs to clean.
7. **LEVEL:** The sensitivity of machine.
8. **MONITOR:** The sensitivity of machine. When the monitor light level is shown higher, it means the machine interfere by magnet is higher. When machine working, flashing can react the mass and size of detective matters. When machine is not working, but the light still flashing. Please check whether it has any interference of environment (Such as: wires, transformer, electromotor, and machinery equipment.) and whether the machine has shaking or the conveyor belt has some dust.
9. **START:** Start and stop button.
10. **Sensitivity adjustment:** : ZREO is minimum. MAX is maxima.

### **3. Operation Manual:**

1. Connect the ground wire and the voltage with suitable power.
2. Press “POWER” and “START/STOP”(The green key), then the conveyor will running. And it is ready to detect the needle. Press “START/STOP”(Red key), the conveyor will stop running.
3. The Control Panel has installed with detecting sensitivity window and the position of detecting window. The inside installs with automatic alarm equipment, and equip with counter. Once it detected the steel needle and ferrous that machine

will alarm. The 9 lamps light can show the detecting position roughly and the conveyor will stop running. The disqualified will be return and it will count the qualified numbers. (Disqualified will not count)

#### 4. Attention:

1. Before detecting, please let our detecting sample or ferrous or needle which you want to detect to pass the detector first. In order to check whether the machine is normal and can alarm or not.
2. This machine can detect the Iron and ferrous. The pure Aluminum and Copper cannot be detected.
3. The machine will react to moving metals. Please don't wear any metal adornment on body.

How to use	Attention
1. Connect the suitable power	The wire should be plug in ground wire, if use with other machine's plug. It may interferes and easy to alarm wrongly.
2. Press the power switch	When the machine is getting through, the red light will flash.
3. Press start/stop switch	The switch controls the machine. Conveyor will start or stop.
4. How to adjust the conveyor	When the conveyor is warping, please use hexagon Hexagonal spanner to adjust.

#### 5. Feather:

1. ON-688CDII Automatic conveyor magnetic induction metal detector can detect the needle easily. And it has signaler to tell you there is some ferrous in it.
2. When machine is detected the needle or ferrous, the alarm will sound and the

conveyor will stop. The signal light will show the position where the needle or ferrous are and will return the disqualified. It will increase the efficiency of working.

3. Machine equips with counter and it can accumulate the quantity of qualified.
4. ON-688CDII can adjust the sensitivity of detecting and to meet the different kind and size of detected matters in order to let you to find the needle or ferrous in your detecting products.
5. It adopt the newly design of trans-induction device. It can increase the product of detection and reliance.

## **6. Purpose:**

1. ON-688CDII Automatic conveyor magnetic induction metal detector can use it to detect the needle or ferrous pieces of sewing products. (Such as: male clothing, female clothing, child clothing, underwear, kimono, jacket, bedclothes, shoes, gloves, cat, toll, blanket and healthful ware.) It also can use in material medical and food...etc. (fish, meat, fresh fruits...etc, and its manufacture.) to detect it. And it can detect the clothes of slide fastener, button and use it to detect the ferrous which mixed in nonferrous material, such as copper, aluminum, zinc, paper, rubber, chemicals...etc.
2. When detect the accessory of sewing articles. Such as: Slide fasteners, button, hook...etc. It needs non-magnet products (It may needs to demagnetized)
3. When operator is using machine, please take off the all accessory from the body. Cause machine will react to moving metals and will alarm mistake.

## **7. Attention for installment:**

1. Before using the machine, please settle the machine in level and no vibration place. It needs to fix the four pedal screws on the floor in order to hold the machine stably. (Otherwise, the machine's belt will warping)
2. Please don't install the machine on the working table of iron or near by shelf of iron.

3. Please don't install the machine near by the magnetic field. Such as: the motor of clutch, sewing machine, cutting machine, packing machine, air-condition, transformer, hang-fan and turning machines. They will interfere the machine by their magnet.
4. Machine should install far away the large moving iron matters. (Such as: trains and vehicles)
5. The machine should far away the iron materials. (Such as: iron door or windows.) Sometimes you can change the direction of machine body in order to avoid any interference.
6. The machine will produce the magnet, please take your credit card, ATM card, phone card and the telephone or tape away in order to avoid any interference.
7. The suitable temperature in using machine is around 0 °C~40 °C. And can't use in freezing point.
8. Don't settle the machine in the room of blowing the dust and very humid place.

## **8. Sensitivity adjustment:**

1. Adjust the sensitivity adjust switch to "6-8". If you need to detect the small or thin needle or iron dust, please adjust to "9-10". And the machines will more sensitivity to the environment's iron materials and belt's clean.
2. When you are using the machine, please check the package and materials (paper case, paper plate, nylon packing bag, button and slide fastener) will not have any reaction of detection.
3. If the belt stop by packing materials, then you need to adjust the switch from "8-10" to "5-7". In order to make sure that the belt will not stop by packing material. Note: When you adjust the switch under "4" that it may difficult to detect the small or thin needle.
4. After adjusted the sensitivity of machine, and the belt still can't move. That you should make sure the packing material has passed the machine normally.
5. After finished, please turn off the power. And if you will not use the machine for a long time, please take the wire away from the plug.

## **9. Concerning the operating of machine:**

1. First, turn on the general power switch of control panel. Then press the "START" to let the machine running. And use the test sample along with the machine or the

sample that you want to test to pass the machine. Then make sure the machine will alarm, the conveyor belt will stop that you can use it.

2. Put the detected matter on the conveyor when machine is running normally. If the detected matter is ok, that it will pass through the detecting area and the counter will count from “0”to “1”. It means the qualified has 1 piece.
3. Put the detected matter on the conveyor when machine is running normally. When machine is detecting the needle or ferrous metals that machine will alarm, and will return it back. The counter will not count the disqualified matter. Take it away and keep detecting the others.
4. You must find the needle that is in the detected matters, and then take it away. (It may have 2-3 needles or ferrous materials in the matters. So you need to find them and make sure it can pass the machine normally.)
5. The detecting work may interfere by environment and alarm mistook. So when machine alarm that you must check it again.

## 10. Attention:

1. Please check the conveyor belt whether it has needle, iron dust, ferrous thing and oil spot...etc regularly. Especially, you need to check whether the reverse of belt is clean or not. And used to use wet towel, cleaner to clean the conveyor belt.
2. Please check the sensor on top of belt. Because the sensor has stronger magnet. It may attach some needle or other ferrous pieces. So you need to use adhesive or other way to clean it in order to make sure it will working normal next time.
3. The principle of detecting is using the ferrous matters active in detector of magnet to react. And the sensitivity of machine will effect by different direction of needle cap.

## 11. The solution of breakdown:

BREAKDOWN	REASON	SOLUTION
1. Machine didn't work.	A. The power didn't input	Check the power plug, connecting wires whether it is complete and the voltage is normal or not.
	B. The fuse has broken	Change 10A fuse (in power box)
	C. Something with power switch	Change the same model switch

<b>BREAKDOWN</b>	<b>REASON</b>	<b>SOLUTION</b>
2. Press "START" button but the conveyor didn't running.	A. The conveyor is too loose	Adjust it tight, just let it running normally
	B. Triangular conveyor has loosened	Adjust or change it
	C. The connecting wire has loosened	Check and connect the wire
	A. The relay has broken down	Check the plug and wire or change it
	B. The button has broken	Check the "START" button · change it once broken
3. Press "START" button, the conveyor belt will stop and return	A. Conveyor belt and detector of upper and lower attach some iron dust	1 · Clean the conveyor belt of obverse and reverse and detector 2 · If possible, change the conveyor belt
	B. It has some interfere near the machine	1. Clean the interfere or away from the interference 2. Change the place to work and the direction of settle
	C. The machine didn't install already	Put the machine in level and fixed the pedal screw
	D. The sensitivity of machine adjust too high	Adjust the switch to "5-7", Note : If the sensitivity is under "4" that may decrease the ability of detecting small cap needle
	E. The lower roller bearing has magnet	Change the new bearing( it has demagnetization)
4. The small needle didn't detected	A. The sensitivity is under our standard	Adjust the sensitivity higher
	B. The sensitivity is adjusting too low	Adjust the sensitivity higher
	C. The power has something stronger magnetic interference	Eliminate the interference and try to change over the wires and connect the ground wire or change the setting place



BREAKDOWN	REASON	SOLUTION
5. The conveyor can't work normal	A. The conveyor is warping	If the belt is warping to the right , please screw the right screw in which without electromotor side or loose the left screw. It only needs to adjust half circle. If it still can't back to the middle. Please adjust half circle depends on the direction of belt.
	B. The conveyor is coiled	1 · Adjust the belt 2 · Loose the belt a little bit Note : The machine's bearing has equipped the stop roll, it may has some warping but it doesn't matter
6. The counter has counted wrong and something wrong with detecting the iron matters	A. The detective high is under 15mm and can't blindfold the infrared rays	1 · To buy the special specification of photoelectric 2 · Many detective matters have detected in the same time. And let the infrared rays is totally blindfold completely. The counter's preciseness will be effect
	B. The detective matter is too narrow to blindfold the infrared rays	Same as below 2
	C. The detective matter is translucence or the infrared rays is leaking out from gap	Let the switch of electric box "OPTO SW" to "OFF"
	D. The photoelectric transmitter and receiver didn't aimed.	Adjust the direction
	E. The photoelectric has broken	Change it
7. Others		1 · Please refer the manual to use it
		2 · Contact with us

**Note** : The detective sample's specification is tested in standard situation. According to different products, specification and environments it may has different sensitivity. Under non-standard situation to use that may happen the iron cannot be detected.

Any damaged cost from this situation, we are sorry and we don't afford any legal duty. We beg your consideration!

## **12. Accessory:**

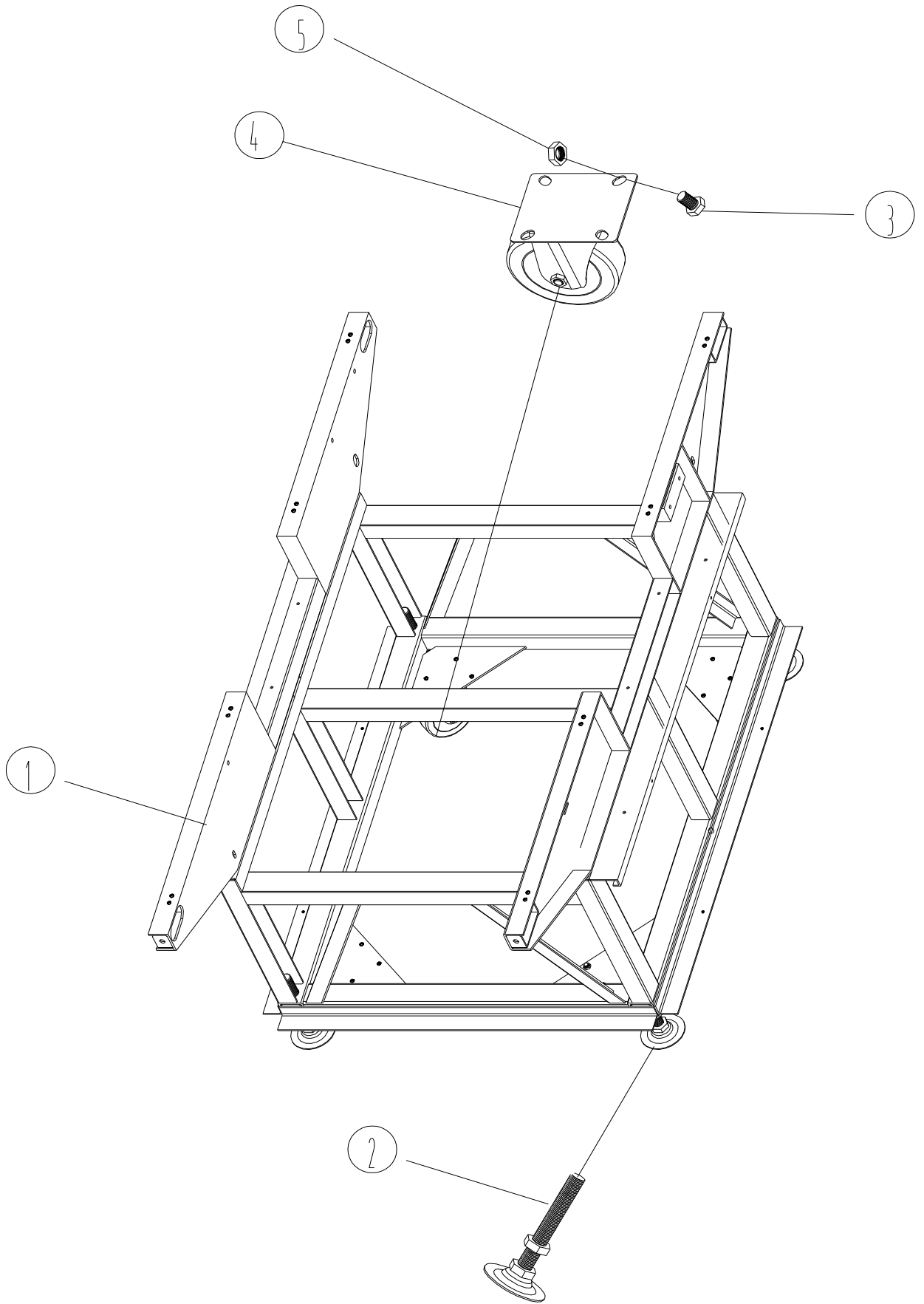
Fuse (10A): 2 pieces (enamel fuse 10\*38)

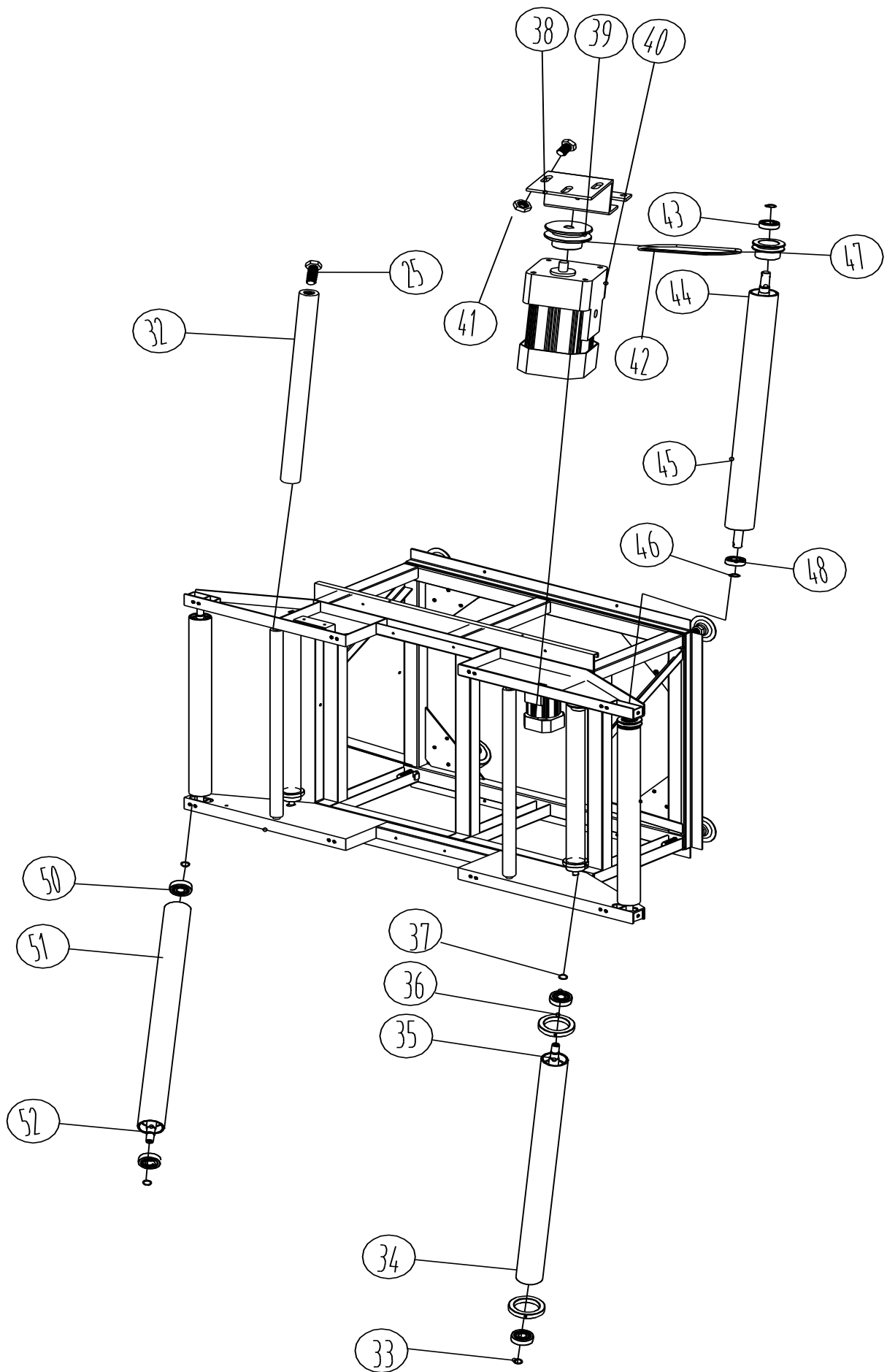
Inside of hexagon spanner for adjusting the belt: 1 piece

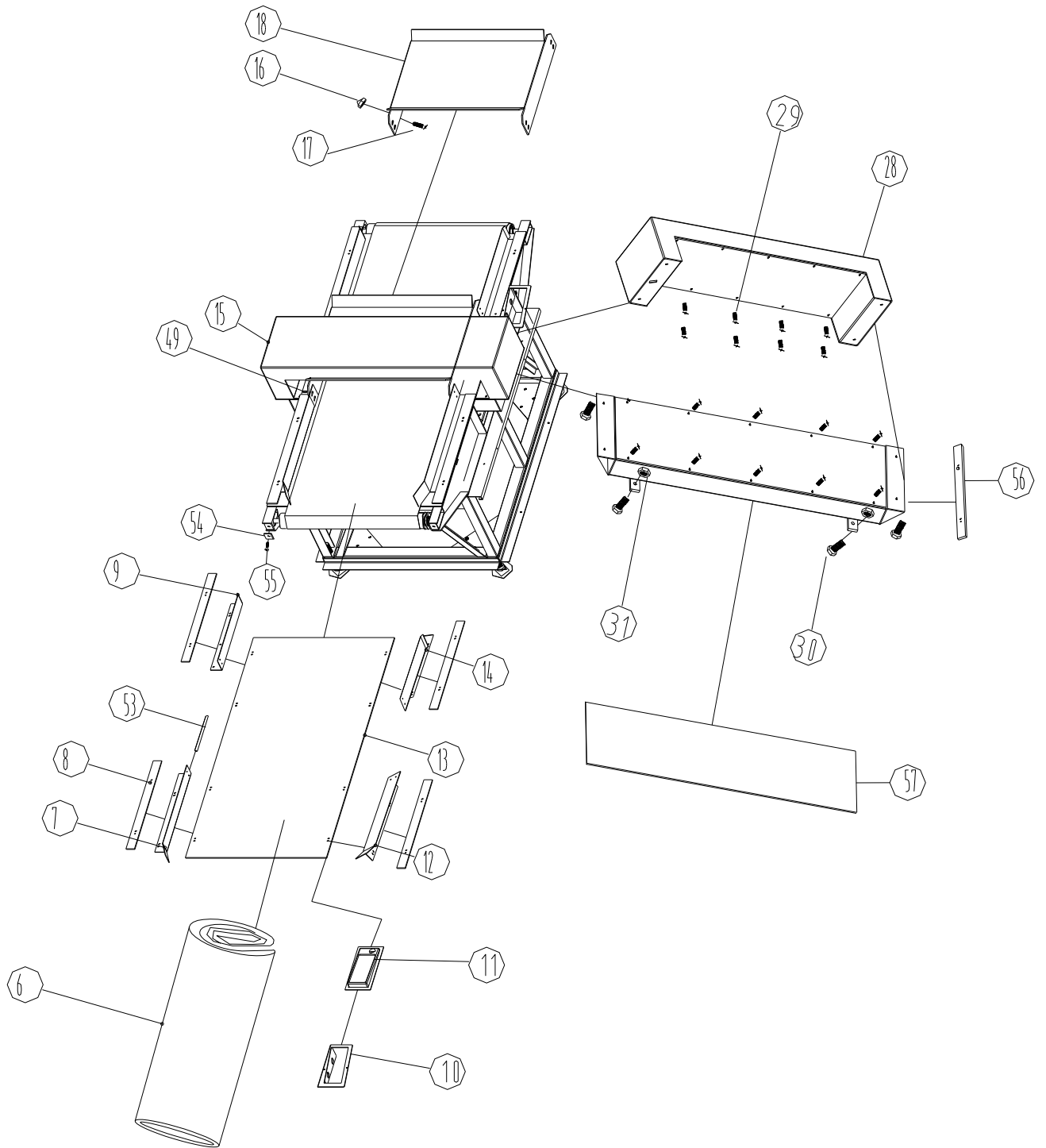
Detective sample: 1 piece

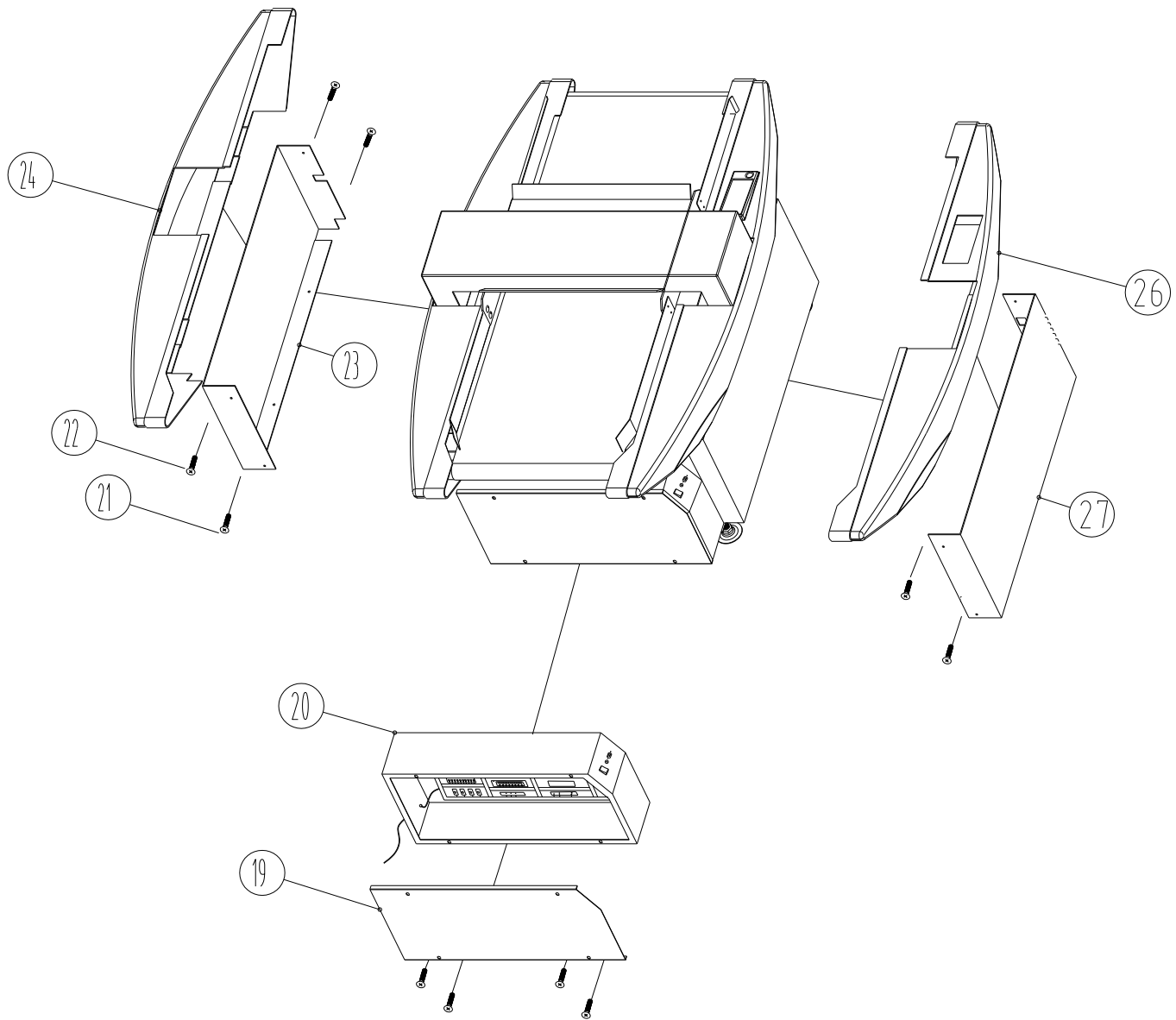
Clothe cover: 1 piece

Manual: 1 reel









明 細 表

序號 No	代號 Parts No	名稱	Description	數量 Customer
2	ZD630.8	地角	Stand	4
3	GB5783-86	螺栓 M8X16	Screw	16
4		萬向輪 P100N	Moving wheel	4
5	GB6170-86	螺母 M8	Nut	16
6		輸送帶 570X3300X1	Conveyor belt	1
7	ZD630-3	後擋板	Back protecting plate	1
8	ZD630-9	後墊板	Back plate	1
9	ZD630-18	前擋板	Front protecting plate	1
10	ZD630-13	顯示幕架	Display screen shelf	1
11	ZD630-12	顯示幕	Screen	1
12	ZD630-7	後擋板左	Back protecting plate (left)	1
13	ZD630-8	面板	Touch panel	1
14	ZD630-19	前擋板左	Front protecting plate (left)	1
15	ZD630.6	上探頭	Upper detector head	1
16	GB802-76	螺母 M4	Nut	8
17	GB5783-86	螺釘 M4X20	Screw	8
18	ZD630-11	通道護罩	Tunnel protecting cover	1
19	ZD630.4	電櫃箱蓋	Electric box cover	1
20	ZD630-5	電櫃	Electric box	1
21	GB818-85	螺釘 M6X12	Screw	2
22	GB818-85	螺釘 M6X12	Screw	2
23	ZD630-4	護罩右下	Protecting cover (right-lower)	1
24	ZD630-16	蓋板右上	Cover plate (right-upper)	1
25	GB5783-86	螺栓 M8X20	Screw	4
26	ZD630-1	護罩左上	Protecting cover (left-upper_	1
27	ZD630-15	護罩左下	Protecting cover (left-lower)	1
28	ZD630.6	上探頭	Upper detector head	1
29	GB5783-86	螺釘 M4X10	Screw	16

明 細 表

序號 No	代號 Parts No	名稱	Description	數量 Customer
30	GB5783-86	螺栓 M8X16	Screw	4
31	GB6170-86	螺母 M10	Nut	4
32		拉杆	Pulling rod	2
33	GB894.1-86	擋圈 19	Stopping ring	4
34	ZD630-2.3	套筒	Roller	2
35	ZD630-2.1	軸	Axis	2
36	ZD630-2.2	套環	Ring	4
37		軸承 6302-2RS	Bearing	2
38	ZD630-2	電機支架	Shelf	1
39	ZD630-20	皮帶輪	Belt wheel	1
40		減速電機 60W,i1:7.5	Decelerator	1
41	GB6170-86	螺母 M8	Screw	3
42		三角帶 O-630	Triangle belt	1
43		軸承 6004-2RS	Bearing	2
44	ZD630-3-0	軸	Axis	2
45	ZD630.3.3	套筒	Roller	2
46	GB894.1-86	擋圈	Stopping ring	4
47	ZD630.3.2	皮帶輪	Belt wheel	1
48		軸承 6304-2RS	Bearing	2
49		光電管	Photoelectric cell	1
50		軸承 6304-2RS	Bearing	2
51	ZD630.3-3	套筒	Roller	2
52	ZD630.9-1	軸	Axis	2
53		橡膠套	Rubber cover	4
54		調節板	Adjusting plate	4
55	GB2672-83	調節螺釘 M8120	Adjusting screw	4
56		橡膠墊	Rubber coaster	2
57		墊板	Coaster	2