



Cleveland Equipment

CENTC100 Tabletop Tablet/Capsule Counter



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1 SAFETY INSTRUCTION

This manual is designed for operators who are not acquainted with the machine, so please follow the instructions to operate and adjust the machine step by step. If you cannot thoroughly understand some of the instructions, please ask experienced technicians for help or contact us. Thank you!

Note: Please read this user manual in detail before taking any action to operate the machine!



- This machine is driven by 110 or 220 VAC. The voltage should fit for the power standard of the machine and should always stay within the security limit.



- Only engineering technicians are allowed to make adjustment of the machine, but any adjustment is forbidden while the machine is running. Failure to follow this warning may expose the operator to danger.



- Do not place the machine near high temperature or inflammables. The places where are not stable or where the machine will be crashed easily are also not suitable to place the machine.

- To prevent from getting electric shocks, the machine cannot be placed in a humid environment.

- Do not attempt to remove/replace parts or to use the machine for any other purpose other than what is recommended by us.

- Do not randomly apply lubricants to any part of the machine.

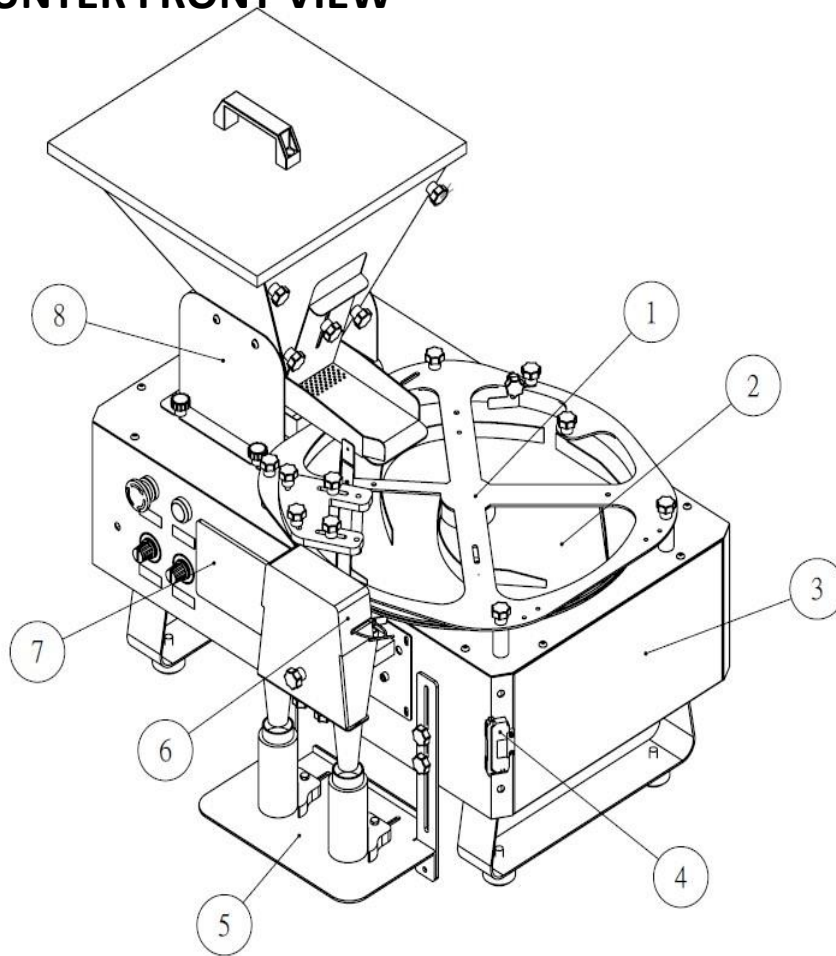
Notice of Equipment Improvements & Document Revisions

We continually devotes to developing and researching for new items and reserves the right to change or terminate the production specifications and features which are presented in this manual without notice and without taking any responsibilities. We have also strived to provide all the needed information in this guide, but if there is any error, we reserve the right to correct for the next revisions.



2 PRODUCT DESCRIPTION

2.1 COUNTER FRONT VIEW



1 Track Model

2 Tempered Glass Turntable

3 SUS316 Forsted Glass Case

4 Fiber Amplifier

5 Holder

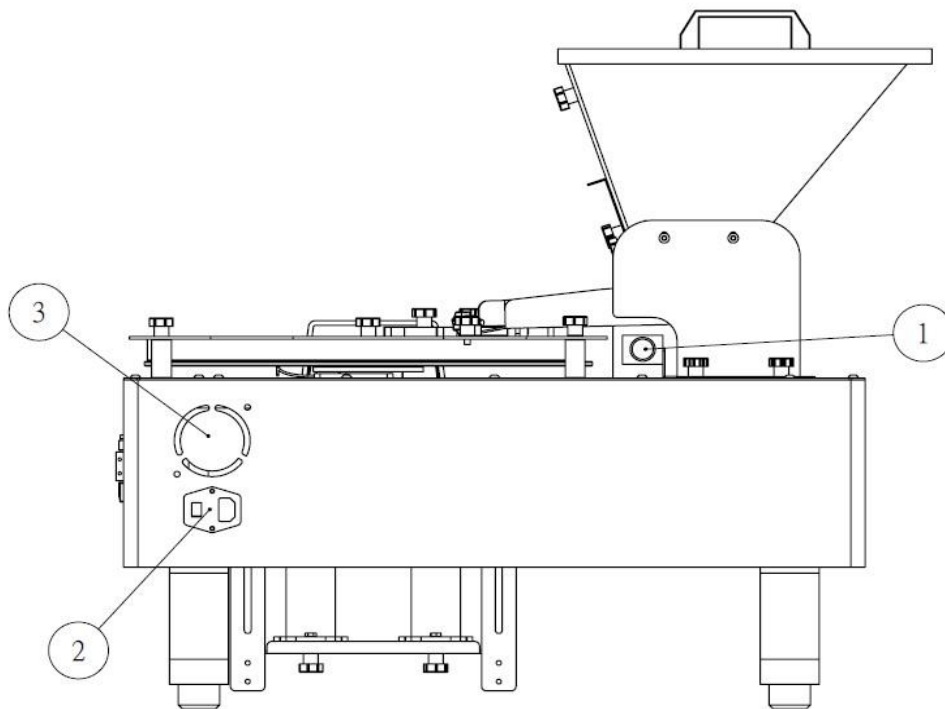
**6 Photoelectric Sensor and
Flapping Unit**

7 Control Panel

8 Hopper



2.2 COUNTER BACK VIEW



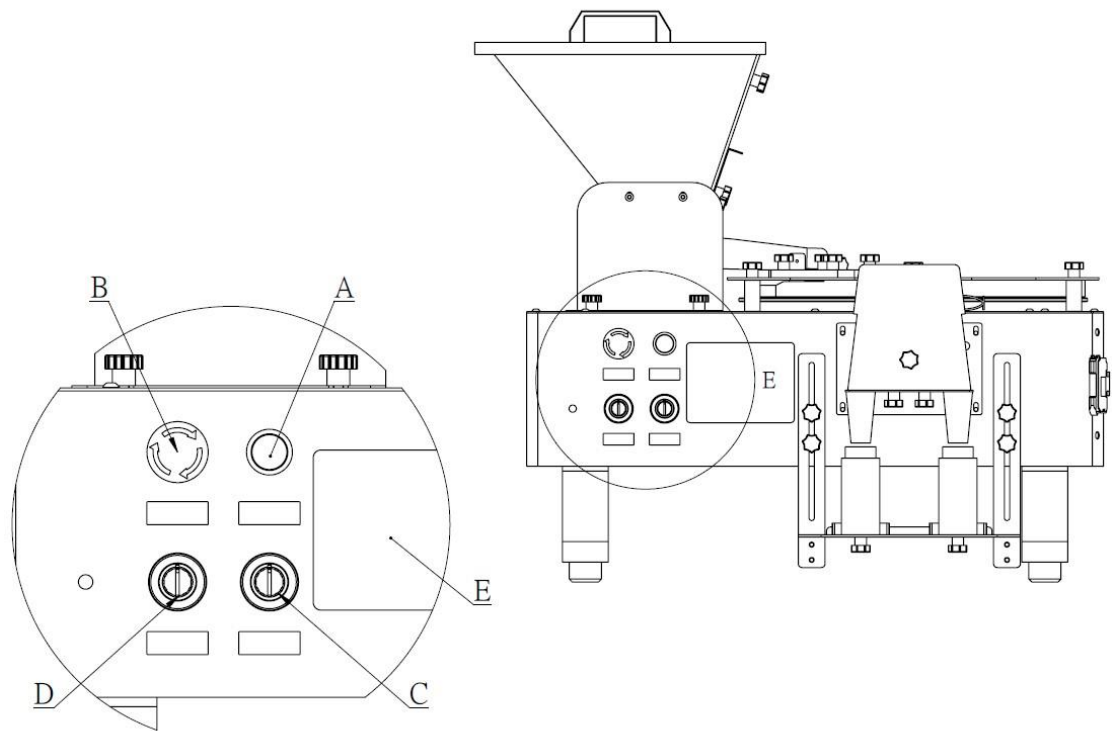
1 Dust accumulating Device

3 Fan

2 Main Power



2.3 CONTROL SYSTEM



A Starting Button

D Speed Knob of Vibrator

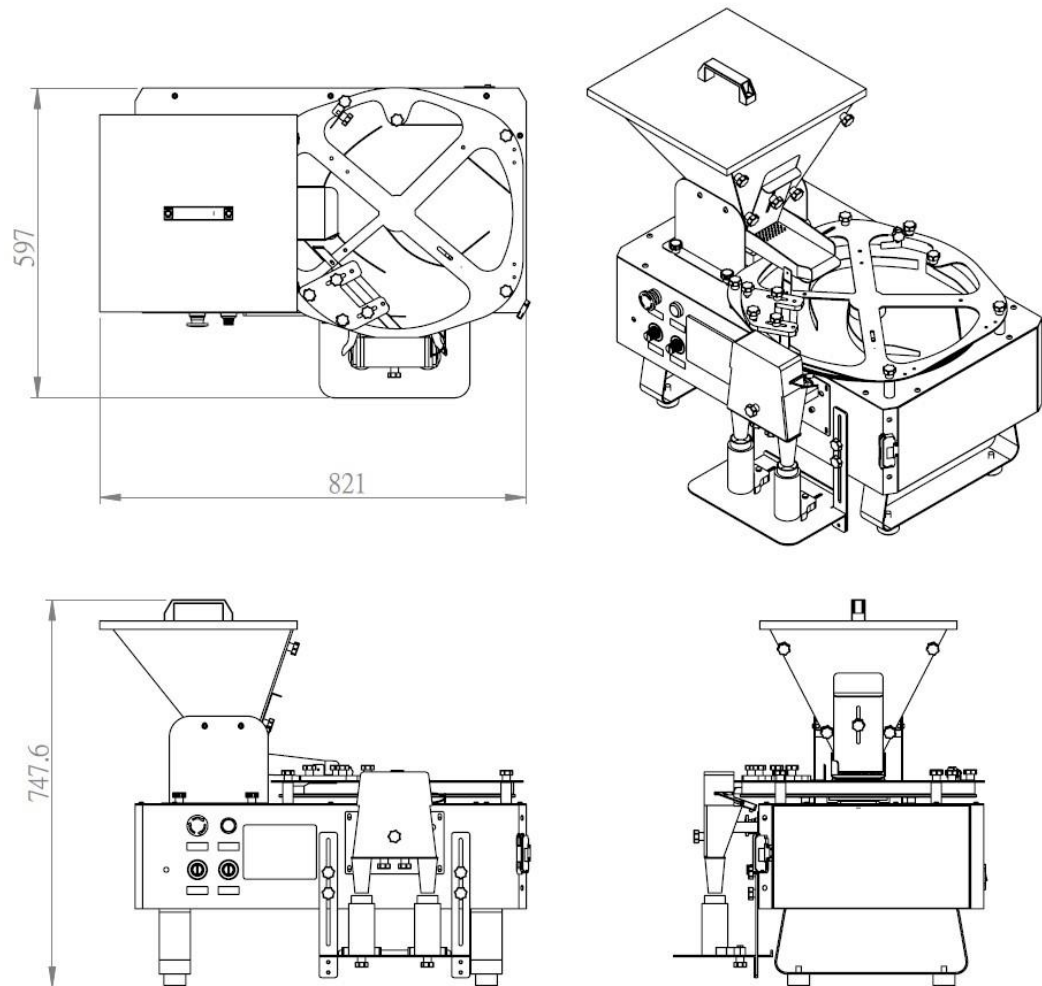
B Emergency Button

E HMI Control Pane

c Speed Knob of Glass Turntable



2.4 THREE VIEW DRAWING





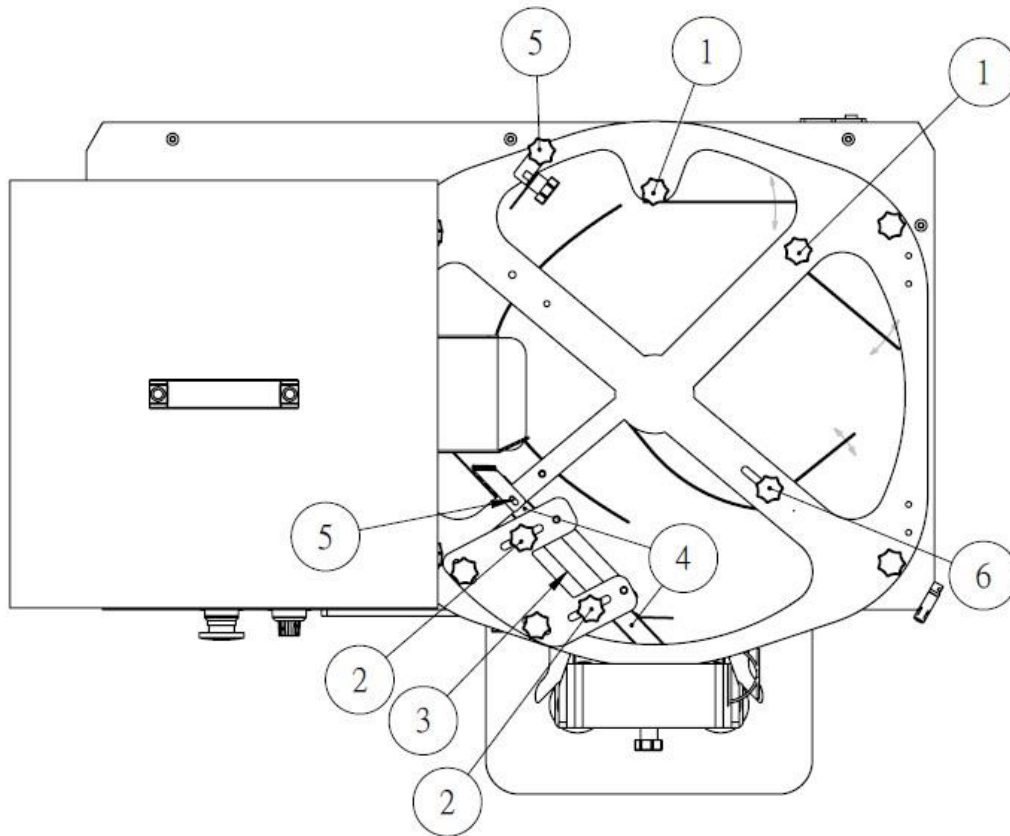
2.5 TECHNICAL SPECIFICATION

Model	NTC100
Counting Speed	600-1000 pcs/min
Counting Accuracy	100% in proper speed (± 1 pcs in overspeed)
Capsule/Tablet Size	(Dia.) > 6mm ; (H) > 3mm
Power Requirement	110 or 220 VAC; 50/60 Hz; Single phase
Dimension	(L) 821mm × (W) 597mm × (H) 748mm



3 ADJUSTMENT

3.1 TRACK MODEL ADJUSTMENT



STEP1. Loose screws marked ○₁ to adjust channel to keep the space which can be passed by one pellet smoothly.

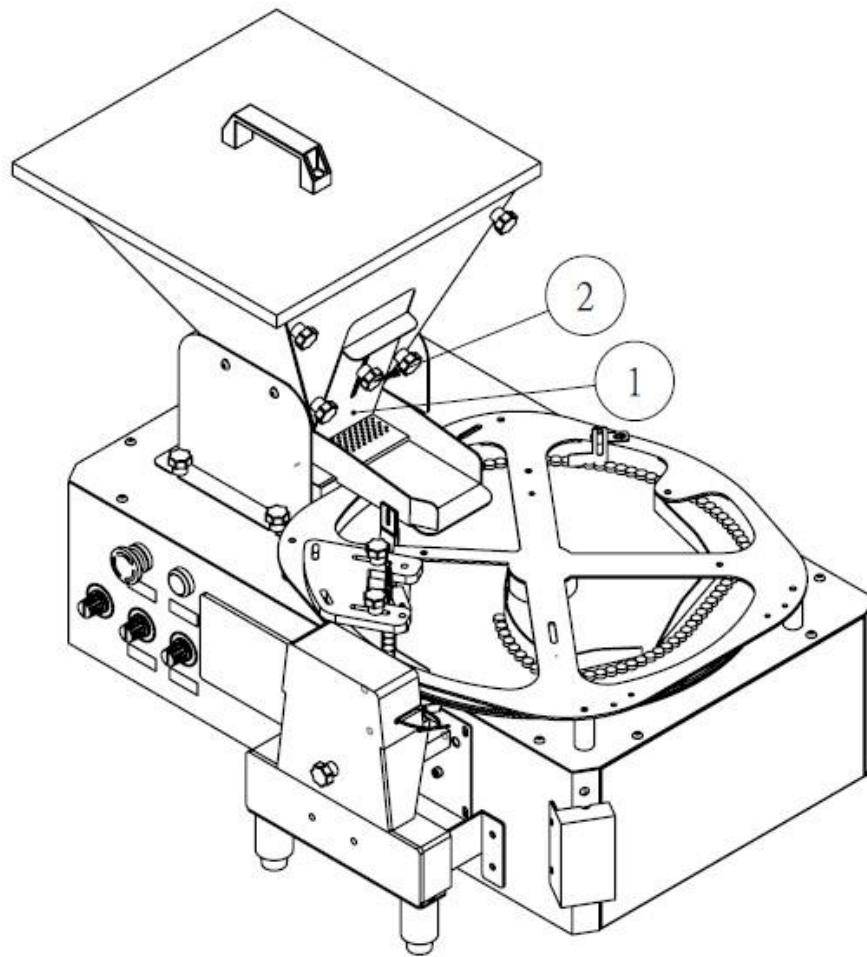
STEP2. Loose screws marked ○₂ to adjust channel marked ○₃ to make the channel is parallel with the other and the space can be passed by one pellet smoothly. If you have different size products, please adjust by the biggest one.

STEP3. Loose screws marked ○₅ to adjust channel to keep the space which can be passed by one pellet smoothly.

STEP4. Loose screws marked ○₆ to adjust channel to keep the space being 3-5 pellets wide.



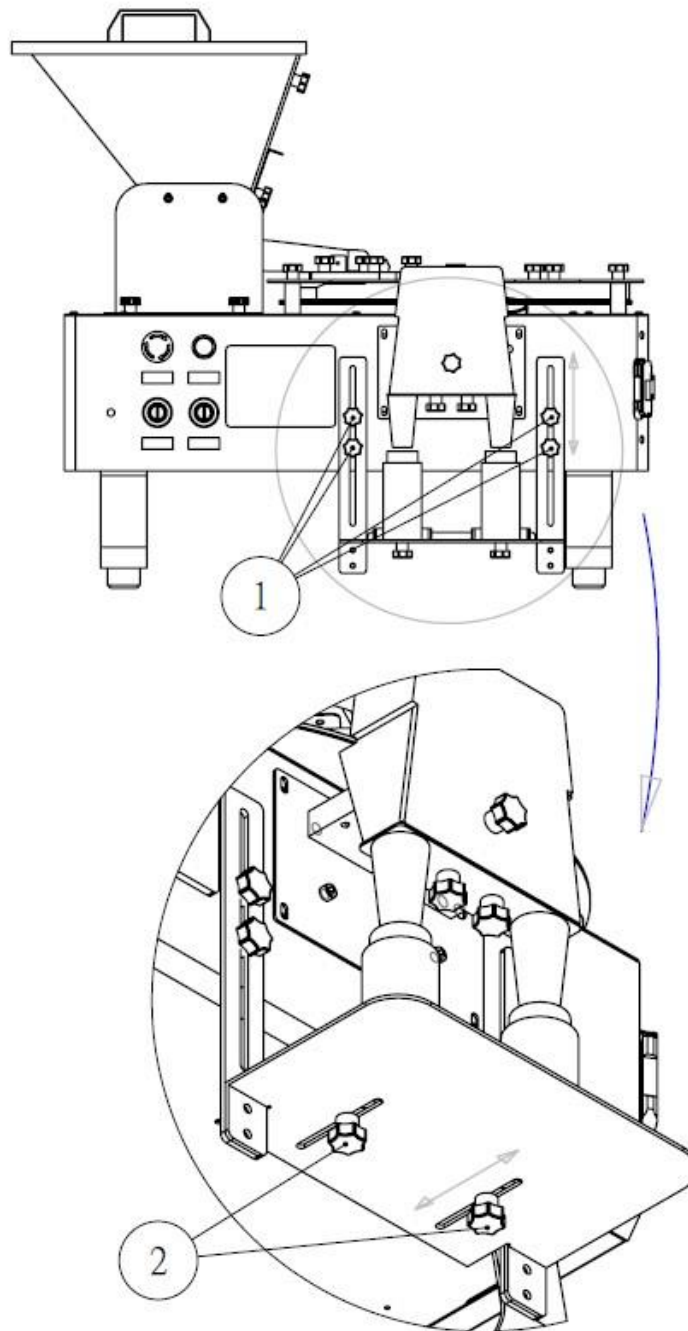
3.2 GATE ADJUSTMENT



1. The gate marked as ① controls the feeding volume while vibrating.
2. Loose both of knurled thumb screws marked as ② to adjust the gate.
 - Big size product: lift up the gate.
 - Small size product: narrow down the gate.



3.4 HOLDER ADJUSTMENT

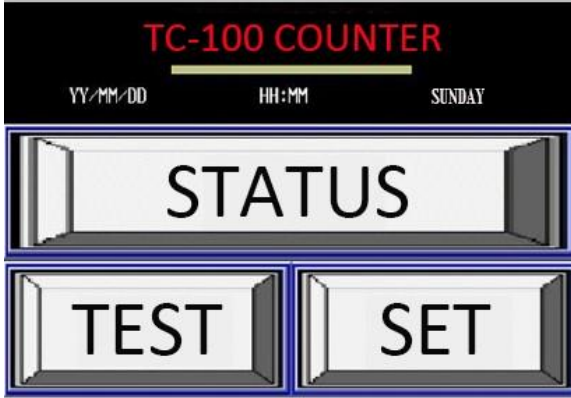




STEP1: Loose all screws marked ① to adjust the holder to fit bottle height.

STEP2: Loose all screws marked ② to adjust the holder to fit the bottle under outfeeder.



3.5 HMI CONTROL PANEL

	<p><u>MAIN PAGE</u></p> <p>➤ STATUS: Monitor the counting status.</p> <p>➤ TEST Press “Emergency Button” to test whether the flap operated smoothly or not.</p> <p>➤ SET Set up the counting pieces and bottles.</p>
	<p><u>STATUS PAGE</u></p> <p>➤ RE-ZERO Before counting, make sure to rezero count and bottle. After finished counting, the machine will stop automatically.</p>
	<p><u>SET PAGE</u></p> <p>In this page, you can set up the counts and bottles by your requirement, then press “STATUS” to finish setting.</p>



LEFT-FLAPPED 1.2 SEC

RIGHT-FLAPPED 1.2 SEC

7 8 9

4 5 6

1 2 3

0 . CLEAR

ENTER

STATUS SET

SET PAGE

Under “SET PAGE”, press “SET2” to set up delay time of flap.

DON'T SET UNDER REGULAR OPERATION!

LEFT

RIGHT

ROTATE FEEDING

STATUS TEST

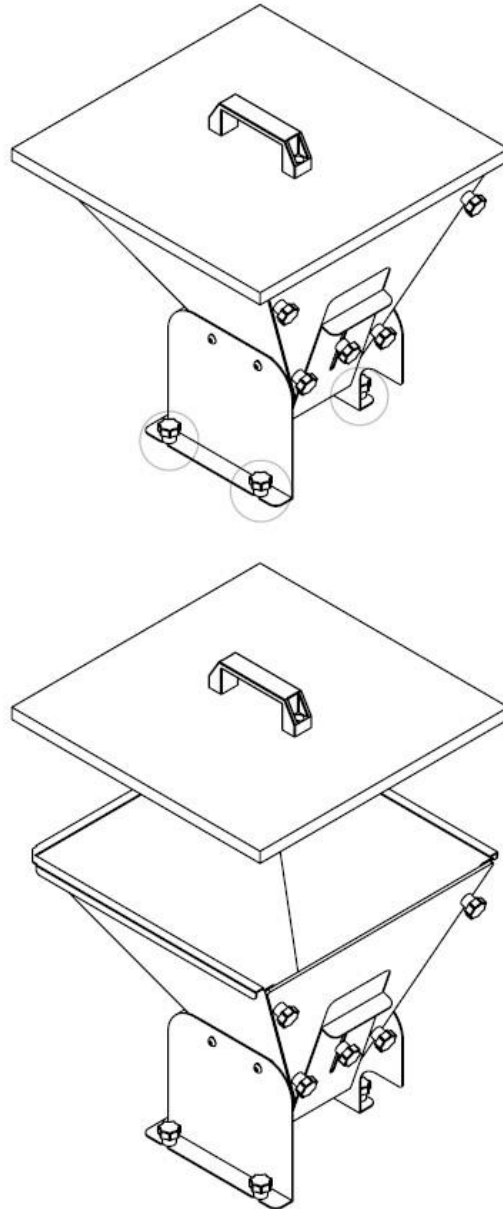
TEST PAGE

Press “Emergency Button” to test whether the flap operated smoothly or not.



4 MAINTENANCE

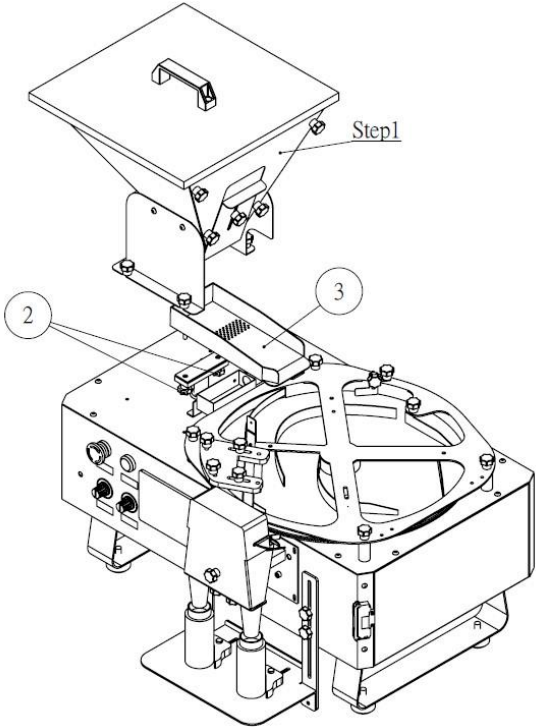
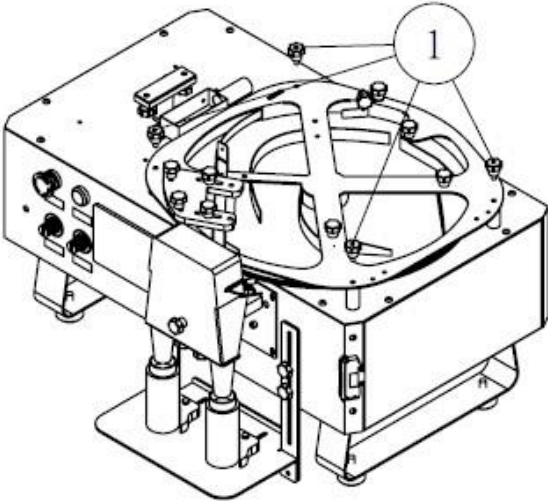
4.1 HOPPER



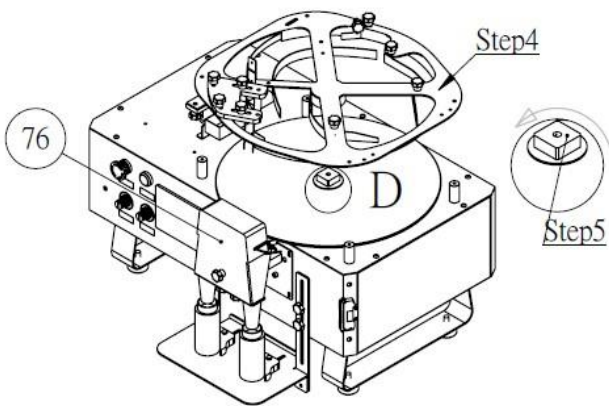
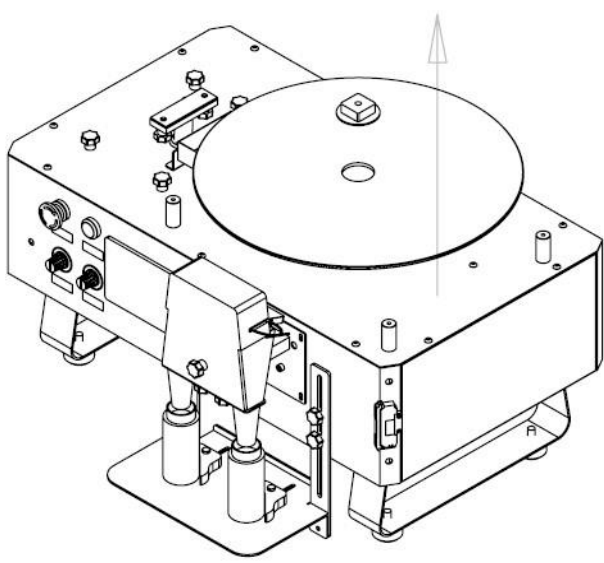
- Step1: Take apart the cover
- Step2: Loose the knurled thumb screw (Circle Part)
- Step3: Take apart the hopper carefully
- Step4: Clean the hopper with water
- Step5: Dry the hopper



4.2 TURNTABLE

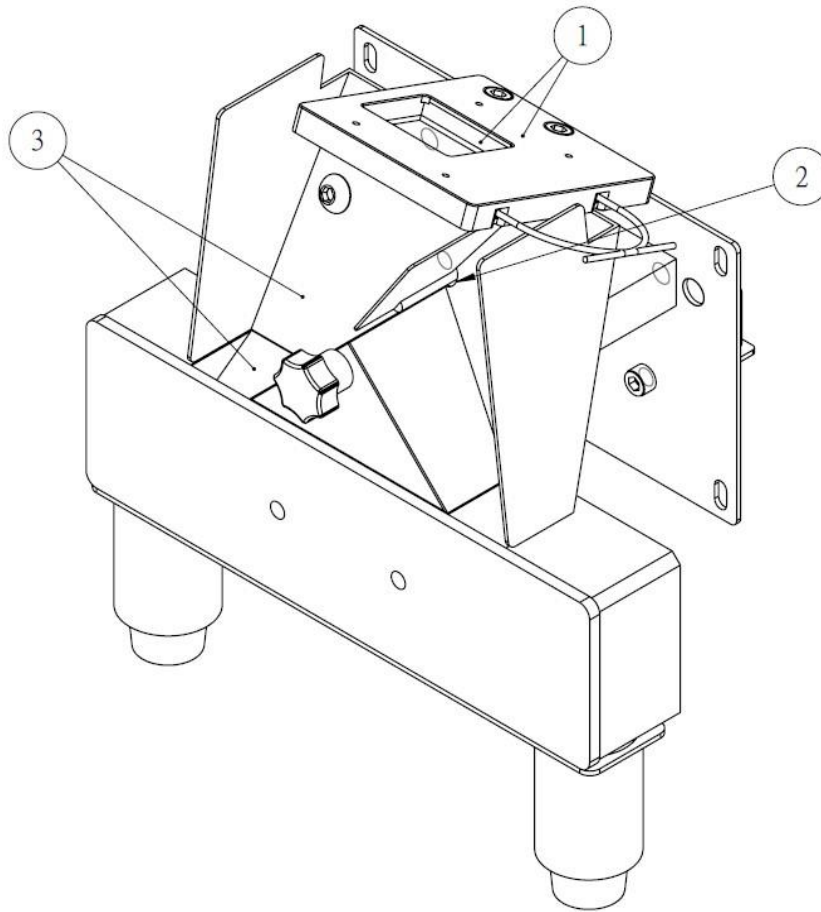
	<p>Step1: Take apart the hopper.</p> <p>Step2: Loose the knurled thumb screws marked as ○₂ , and take apart the plate marked as ○₃ .</p>
	<p>Step3: Loose the knurled thumb screws marked as ○₁ .</p>



 <p>Step4</p> <p>Step5</p>	<p>Step4: Take apart the track model carefully avoid breaking acrylic shield marked as 76.</p> <p>Step5: Loose the block marked as D.</p>
	<p>Step6: Take apart the glass.</p> <p>Step7: Clean the glass with water or alcohol.</p> <p>Step9: Dry the glass and reassemble the counter by reverse step.</p>



4.2 PRODUCT SENSOR



Step1. Please clean product sensor marked as ① with pneumatic gun and clean window with alcohol every day.

Step2. Please keep flapping shaft marked as ② clean every day.

Step3. Please clean the flapping unit internal marked as ③ with pneumatic gun and clean with alcohol every day.



5 TROUBLESHOOTING

5.1 PRODUCT JAM

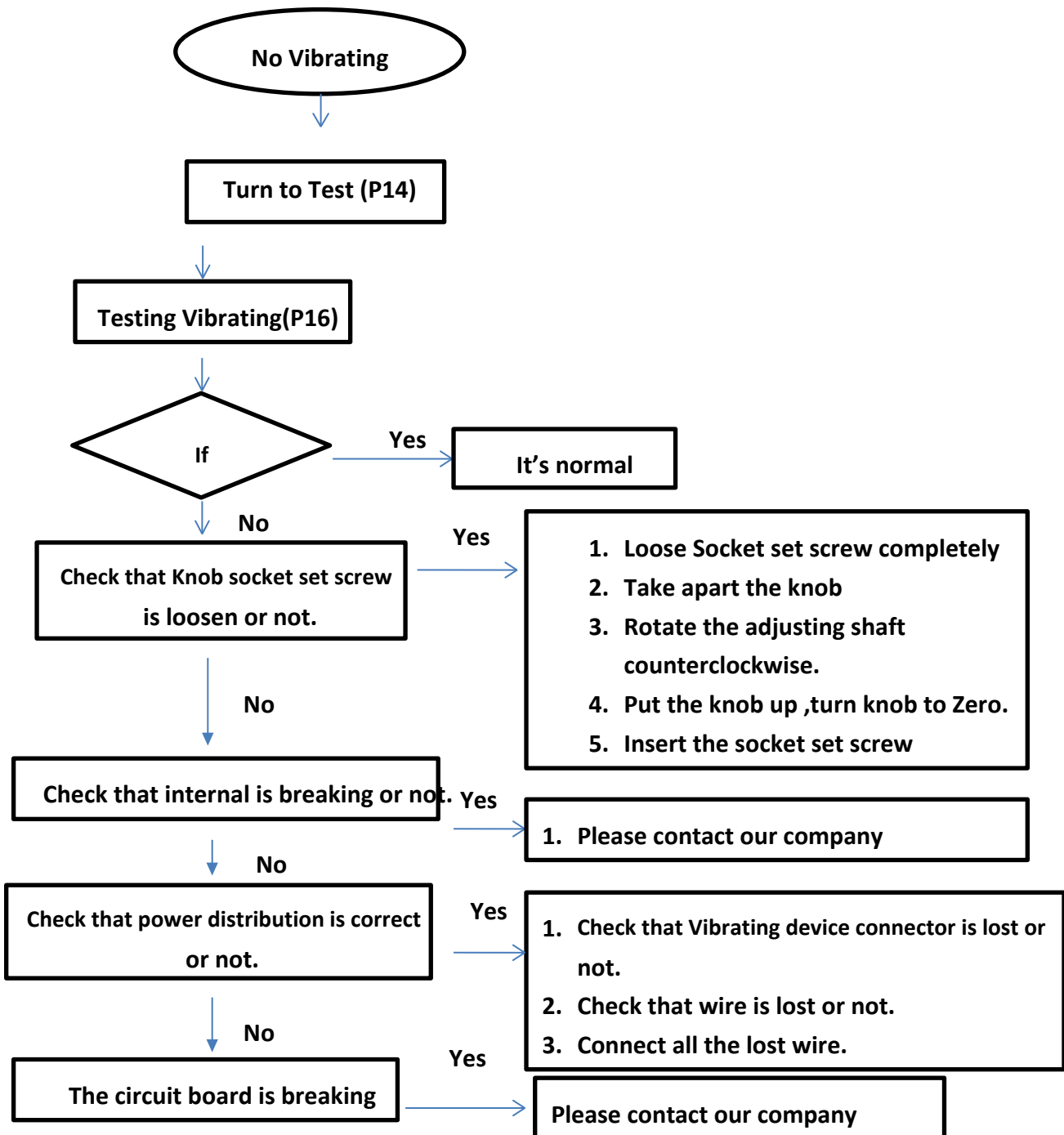
- A. Please turn glass turntable clockwise to solve the product jam.
- B. Please check that the materials is too much or not

5.2 NO POWER

- A. Check that voltage is correct or not.
- B. Check that the fuse is blown or not.

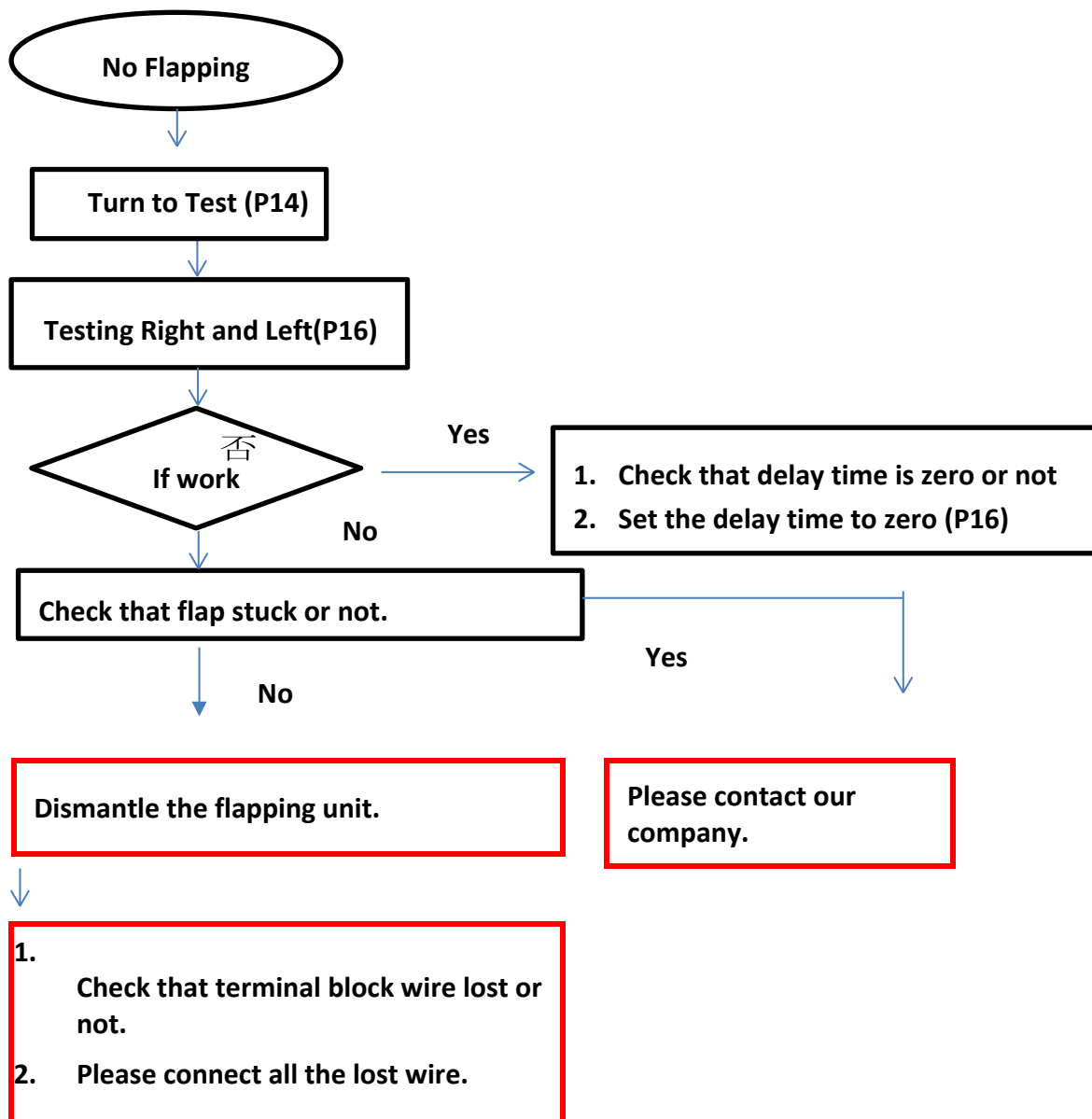


5.3 NO VIBRATING



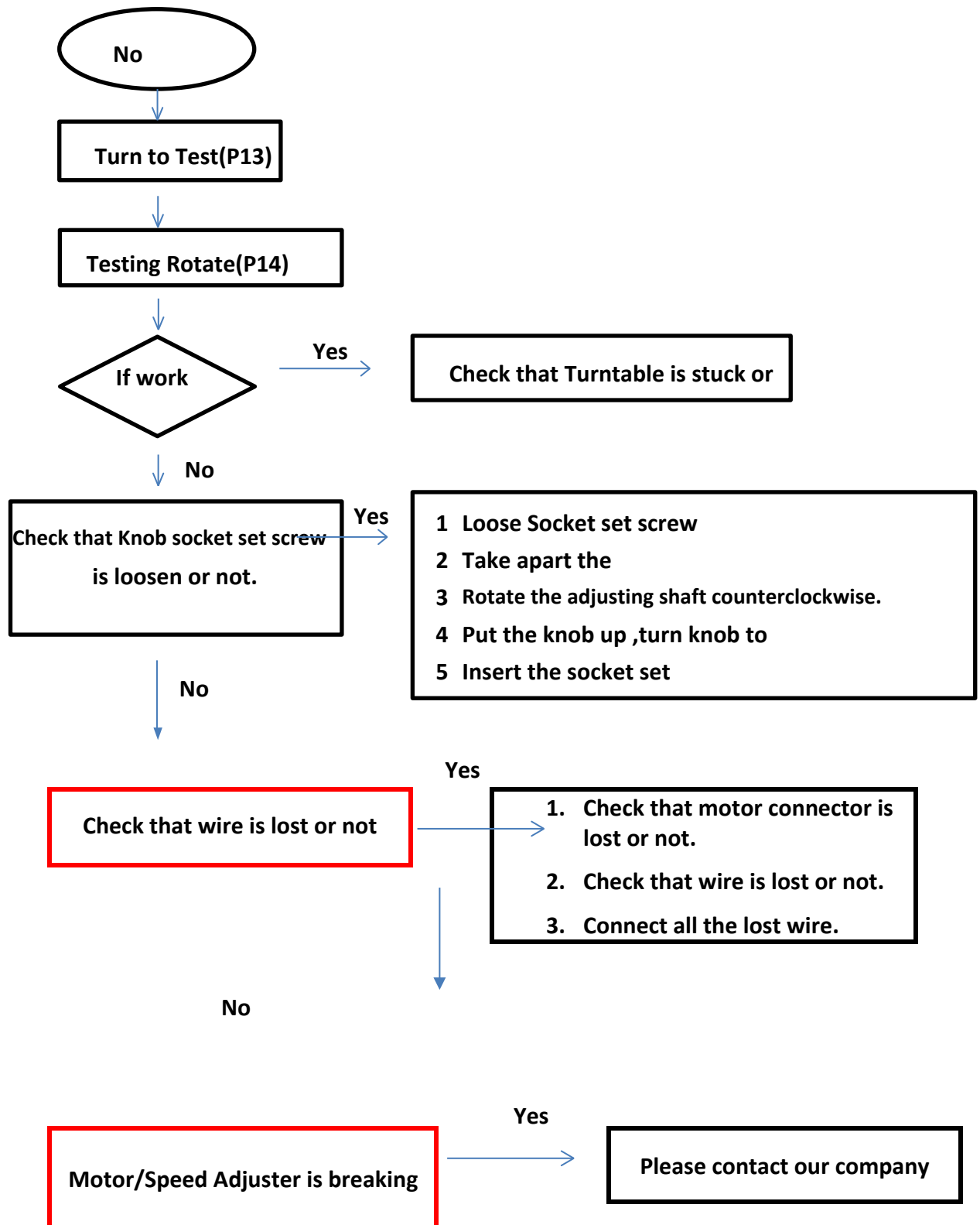


5.4 NO FLAPPING





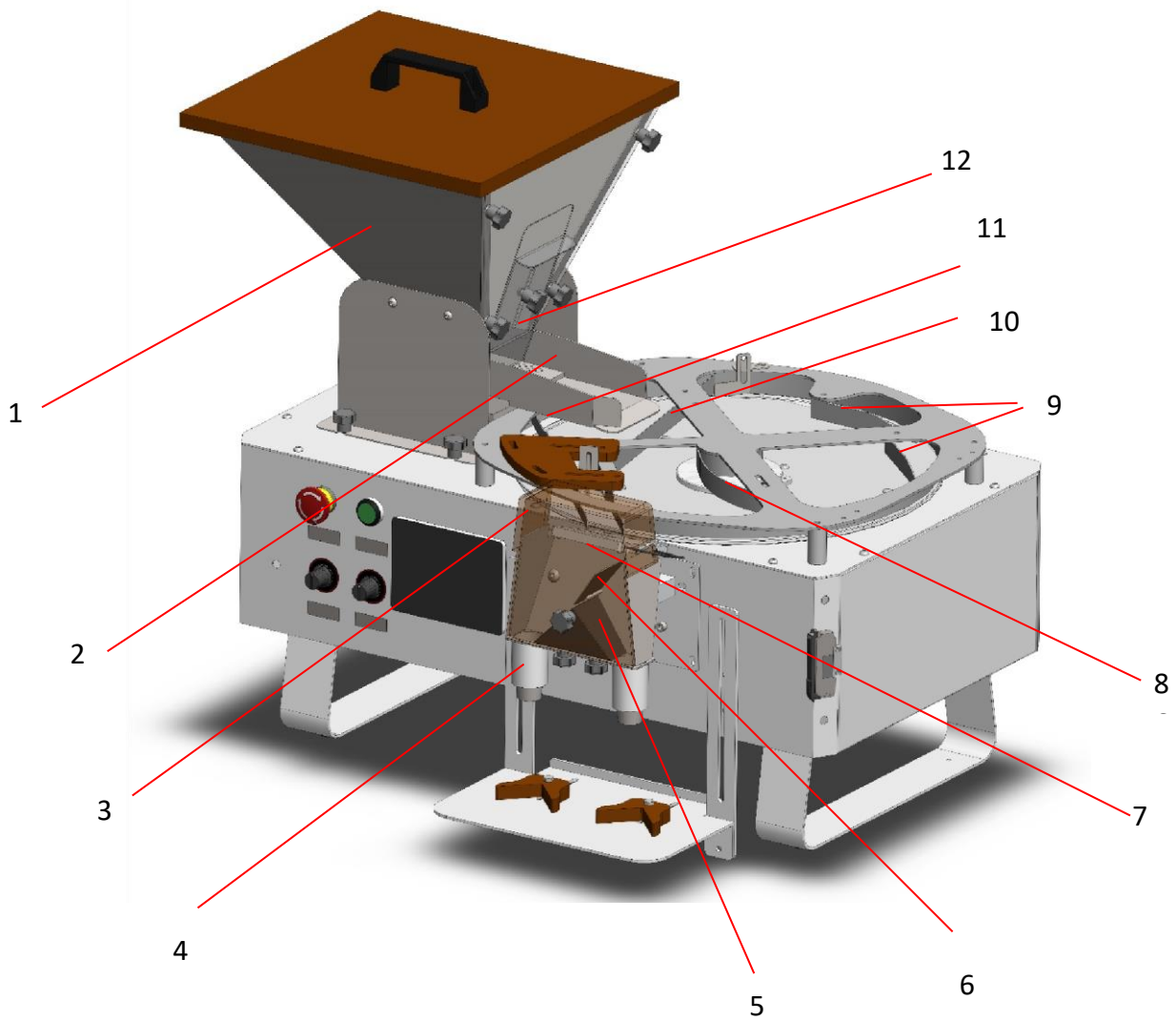
5.4 TURNTABLE





6 SPARE PARTS

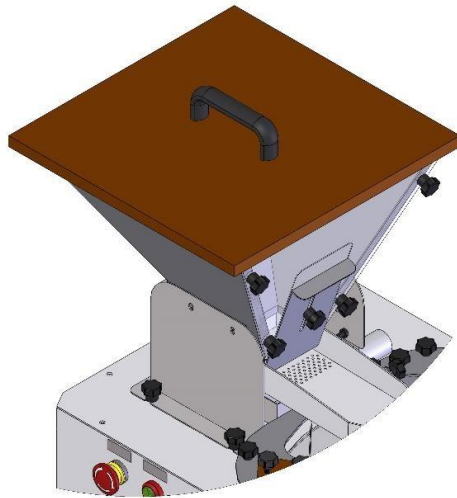
Component Description	Manufacture	Type
Motor	VGS	VGS_4IK25RGN-C
Gear Reducer	VGS	VGS_4GN36KB
Vibrate	立原	TC100-F00-H17
Sensor	Keyence	FU-E40
Fiber Amplifier	Keyence	FS-V31
Turntable	宏益	TC100-A00-O17
HML	琦勝	HM-730S
PLC	永宏	FBS-10MAT
PLC Power Supply	ACRO	AD1048-24FS-2A
Relay	OMRON	OMRON 繼電器_MY2NJ-DC24V
Speed controller	高電	Speed Controller_SS-22
Vibrating circuit board	堃邑	N7
Fan	辰奇	Fan_FP-108AX 220V S1SW



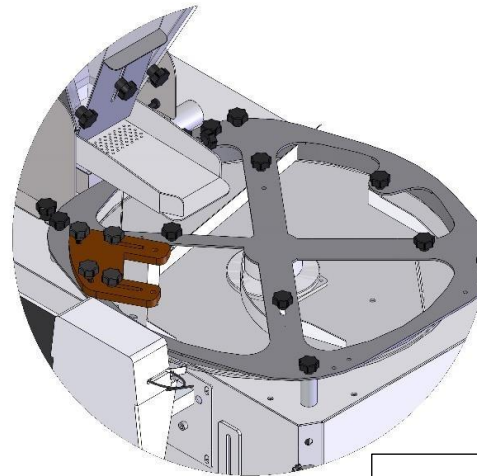
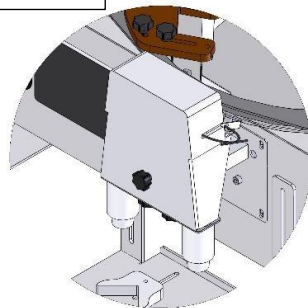
Item	Part	Material
1	TC1000-D1810BA-L01	SUS316
2	TC100-E1743JB-L12	SUS304
3	TC100-E1515JR-P06	PVC
4	SUS316 焊同心大小頭 T-13_1.5Sx1S	SUS316
5	TC100-E01-W18	UPE
6	TC100-E01-L08	SUS316
7	TC1000-E1810BA-L04	SUS316
8	TC1000-A1810BA-L03	SUS316
9	TC1000-A1811BA-L05	SUS316
10	TC1000-A1810BA-L09	SUS316
11	TC1000-A1810BA-L04	SUS316
12	TC1000-D1810BA-L03	SUS316



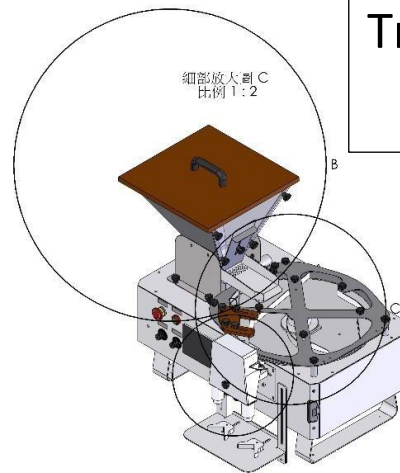
CENTC-100 Capsule Counter Contact Area Measurements



1. Hopper: 17582.5 cm²



2. Glass Turntable and
Track module: 3699 cm²



3. Nozzle and Flapping Unit: 1875.7 cm²