Cleveland Equipment

CE-NLR1100

Tabletop Round Bottle Labeler

USER MANUAL

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Contents

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.

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.**

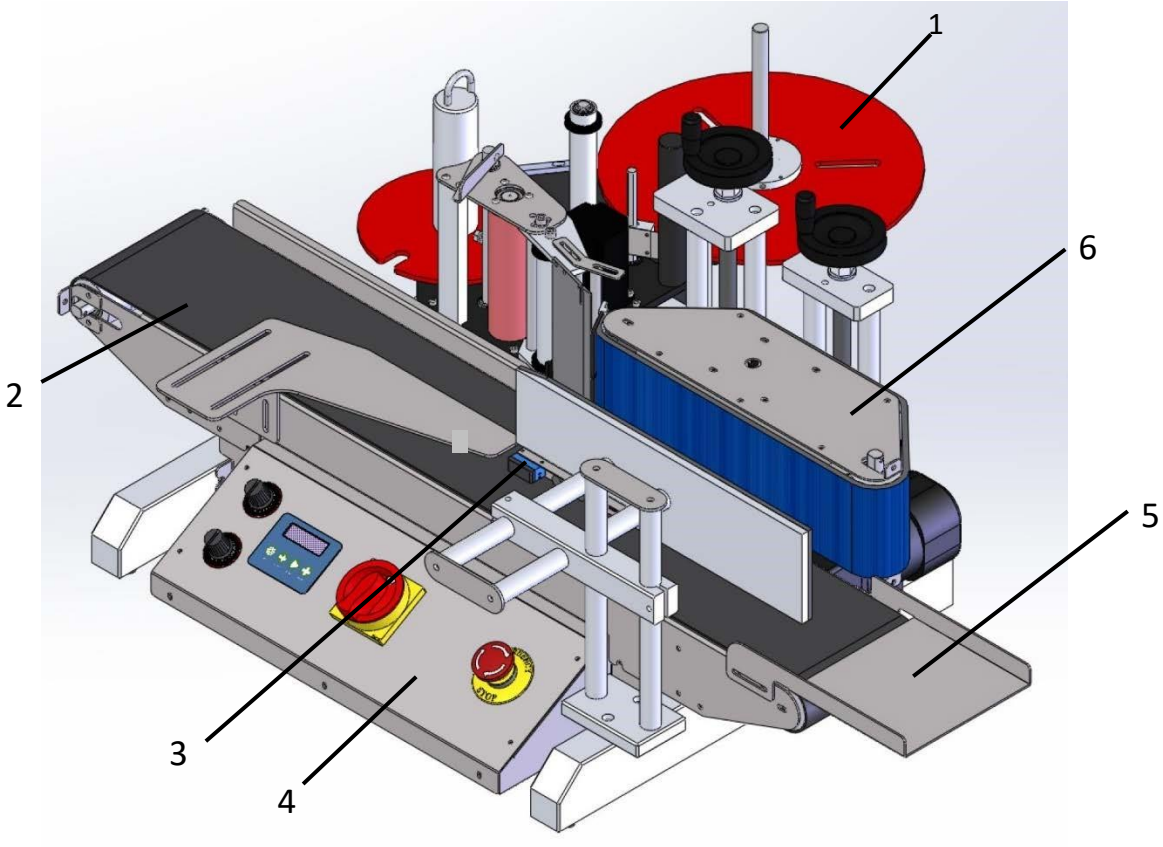
- **Do not attempt to remove/replace parts or to use the machine for any other purpose other than what is recommended by us.**

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

Notice of Equipment Improvements & Document Revisions	We continually devote 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 COMPONENTS



1 **Label Applicator**

2 **Conveyor Belt**

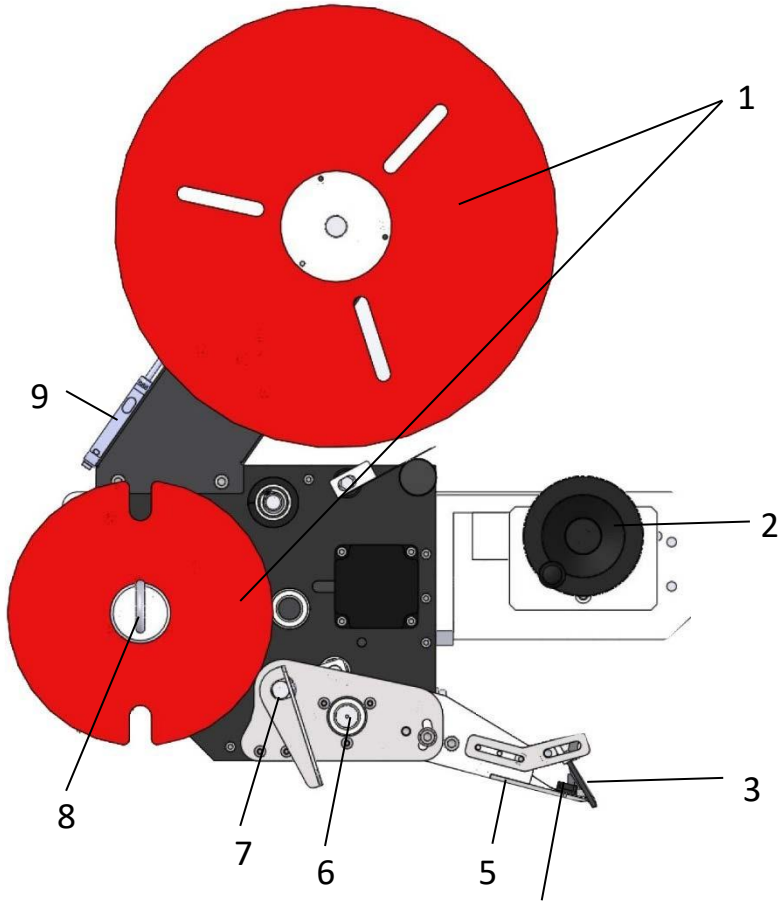
3 **Start Sensor**

4 **Control Box**

5 **Collected Tray**

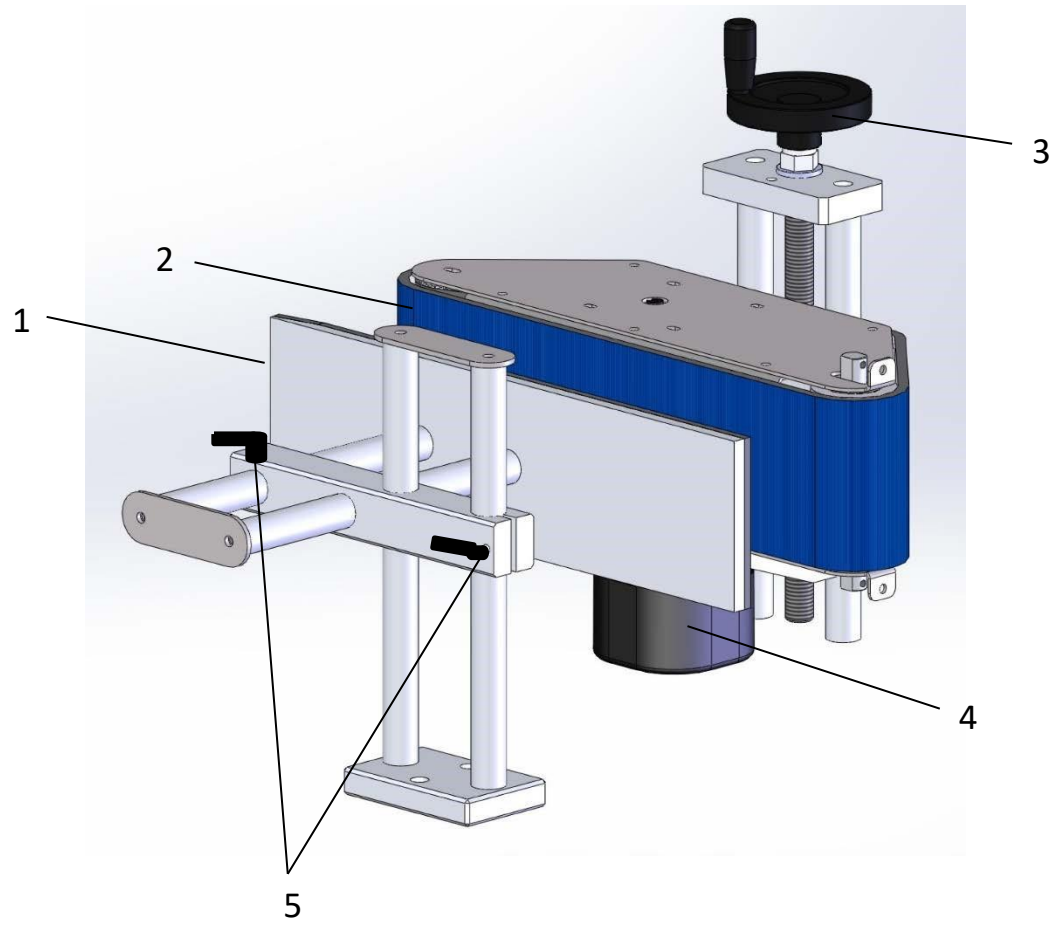
6 **Rotary Flattening Set**

2.2 LABEL APPLICATOR



1 **Spool Disc**
2 **Adjuster**
3 **Press Plate**
4 **Label Sensor**
5 **Peel Plate**
6 **Driving Shaft**
7 **Knurled Drive Roller**
8 **Waste Paper Holder**
9 **Amplifier**

2.3 ROTARY FLATTENING SET



1 **Rotary Belt**

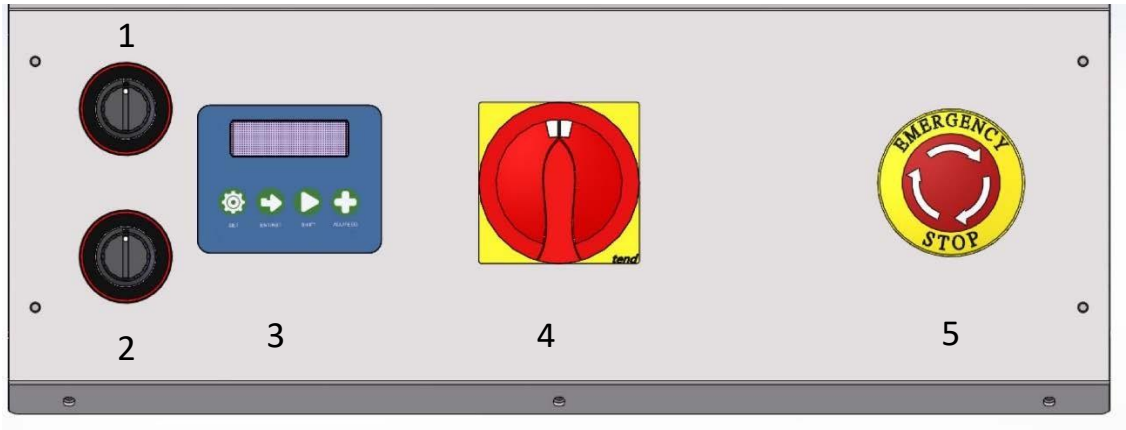
2 **Rotary Sponge**

3 **Adjuster**

4 **Adjuster**

5 **Handle**

2.4 CONTROL BOX



1 **Rotate Speed Knob**

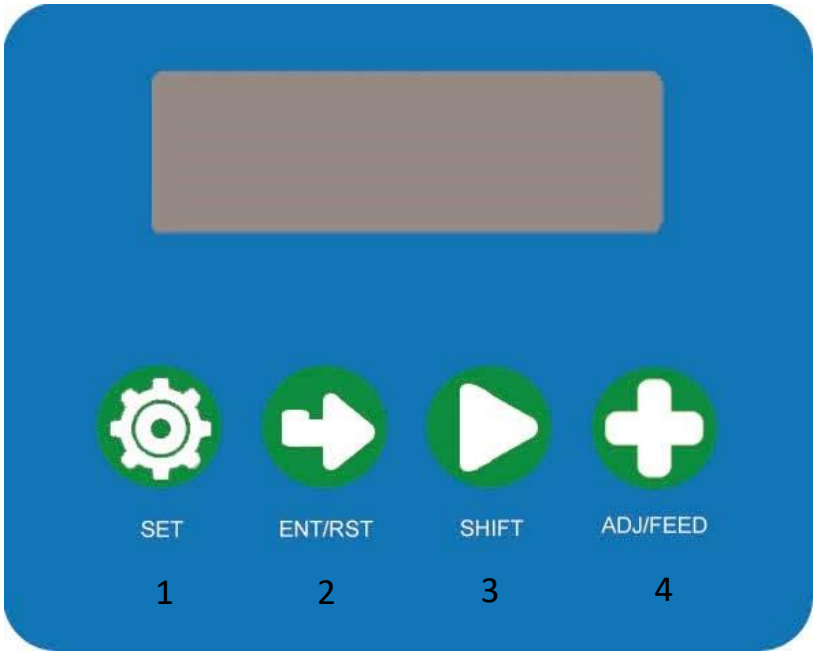
2 **Conveyor Speed Knob**

3 **Control Panel**

4 **Power Switch**

5 **Emergenct Stop Buttom**

2.5 CONTROL PANEL



1 SET

- Press this button to enter parameter setting page.

2 ENT/RST

- Parameter choosing: press the button to choose parameter you want to set.
- Parameter entering: after setting, you need to push this button for sure to enter - Zero the count: press the button for 5 seconds, and the label counter will become zero.

3 SHIFT

- Press this button to shift the flashing cursor.

4 ADJ/FEED

Value adjusting: Press this button to adjust the parameters.

Label dispensing: Press the button for 5 seconds, the label will be dispensed continuously.

2.6 PARAMETER SETTING

1P = Delay Time

It represents the time of delaying starting the labeler. The large the parameter is, the longer the delay time will be. (This parameter we always set is 0 that means the labeler will work immediately after detecting product.)

P.S It is not real time.

2L = Dispensing Length

It reflects the length of the labels which are dispensed from the front end of the dispenser. (If the length of label is longer than 70mm, we always set 2L from value 700; otherwise we set from 0.)

P.S It is not real length.

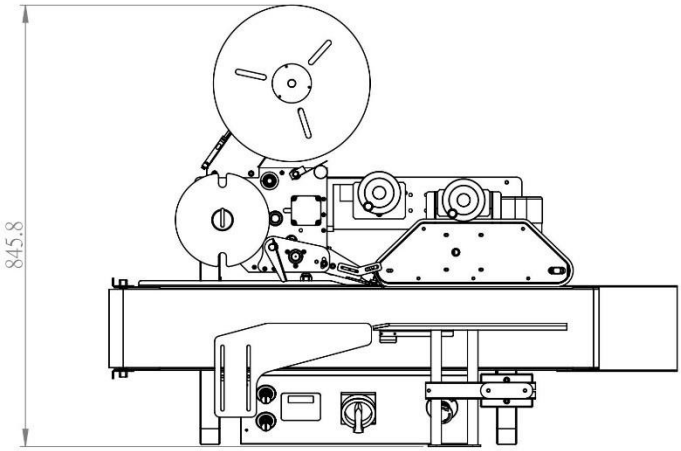
3E = Labeling Speed

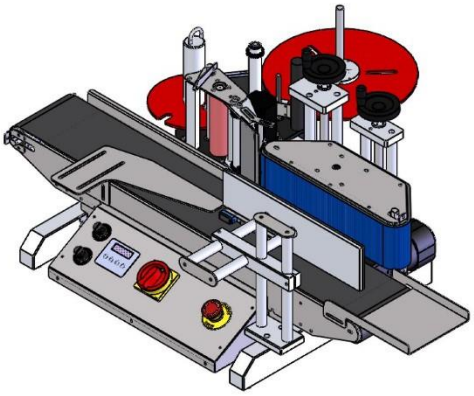
It represents the speed of labeling. It means the speed of the labels moving forward.

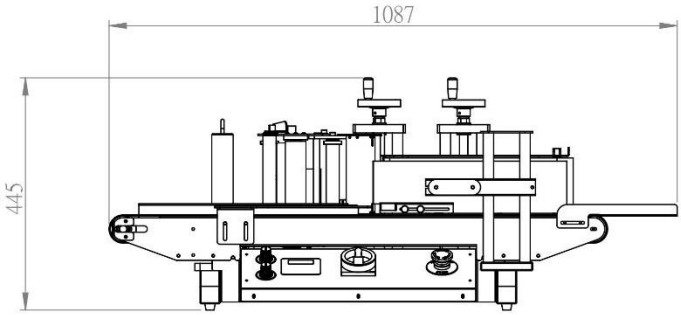
If you find crumple labeling, please decrease the value you set.

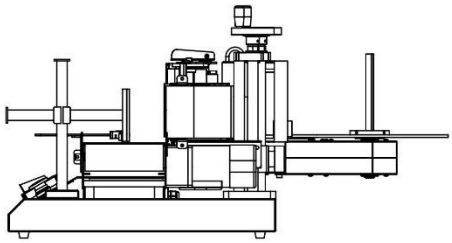
P.S It is not real speed.

2.7 THREE VIEW DRAWING









2.8 TECHNICAL SPECIFICATION

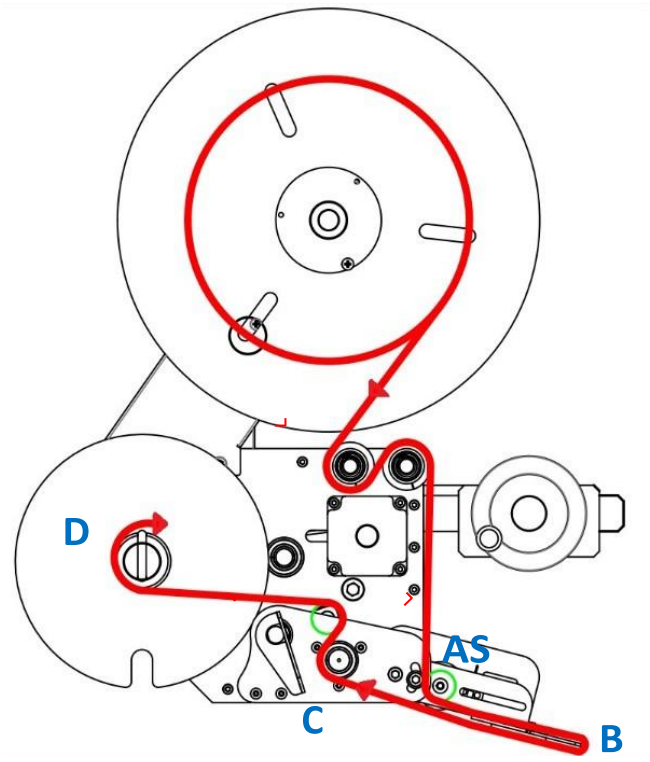
Model	NLR-1000
Labeling Speed	10 meters/min
Labeling Accuracy	±1mm
Bottle Dimension	（Dia.）16-90mm；（H）30-160mm
Label Dimension	（L）10-300mm；（W）10-100mm
Label Roll Diameter	（Inner Dia.）75mm；（Outer Dia.）300mm
Driven Motor	Stepper Motor
Power Requirement	110 or 220 VAC; 50/60 Hz; Single phase
Dimension	(L) 1087mm × (W) 846mm × (H) 445mm

3 BEFORE OPERATION

3.1 LABEL THREADING

The accuracy of labeling is determined by whether the label threading is correct or not. Be sure the label threading is not curving or loosened.

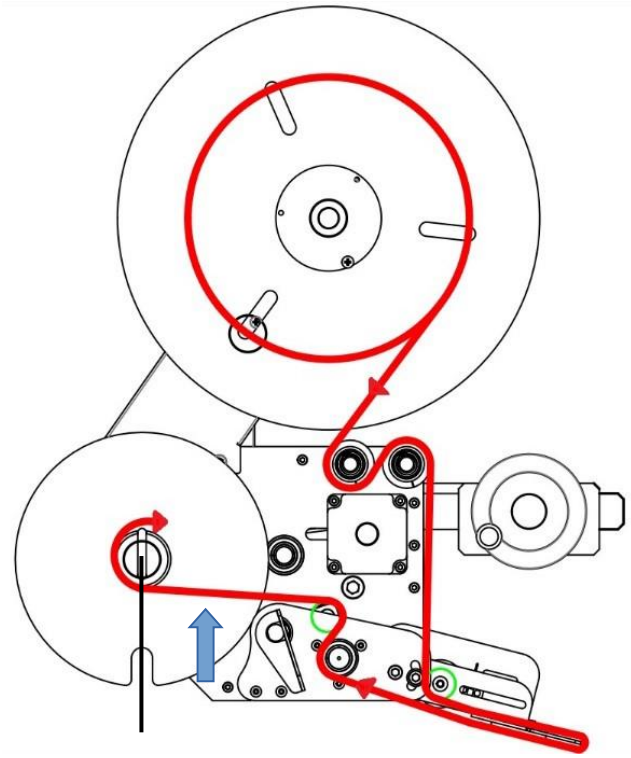
Do it as below:



P.S.

1. While threading to **A**, make sure the label paper through fillister of **label sensor.**
2. While threading to **B**, make sure the **press plate** presses **peel plate**.
3. While threading to **C** and **D**, open the **knurled drive roller** first to thread the label paper and then coil the label paper clockwise onto the **shaft** and put back the **waste paper holder**. Remember to close the **knurled drive roller** after finishing threading.

3.2 LABEL ROLL REPLACEMENT



Waste Paper Holder

Steps:

3.2.1 When you need to replace the label roll or it runs out of labels, tear the waste paper off (around the place where the blue arrow shows).

3.2.2 Pull out the **waste paper holder.**

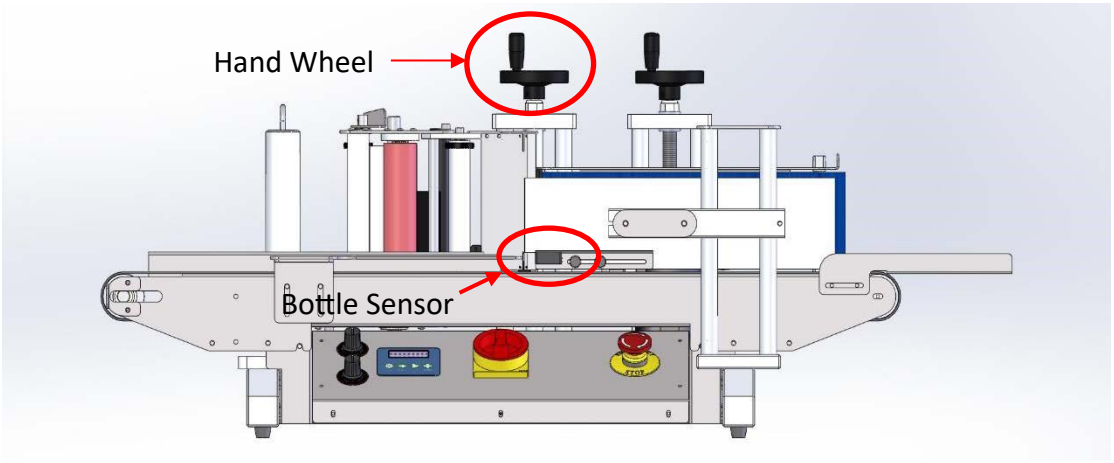
3.2.3 Turn the whole waste paper roll clockwise and pull it upward at the same time, and then the whole paper roll can be pulled out at once.

3.2.4 Pull out the label follow the reverse direction of label threading. You can replace the new label roll or supply the label.

4 OPERATION

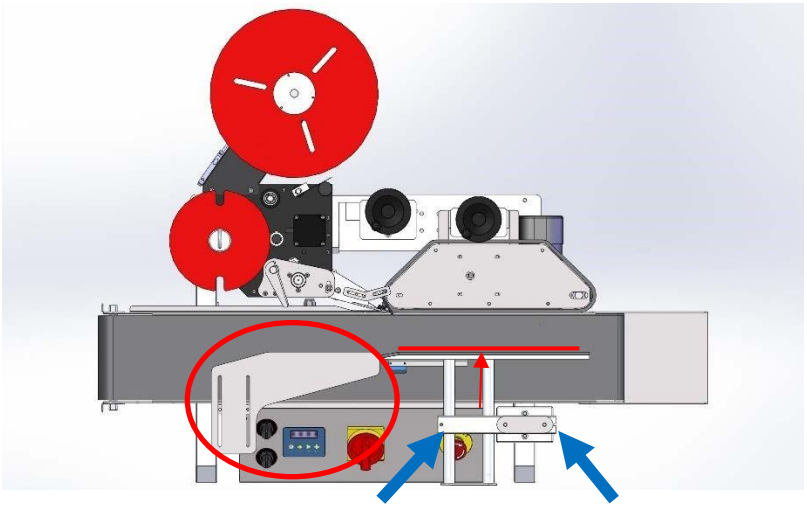
Make Adjustments

Step 1.



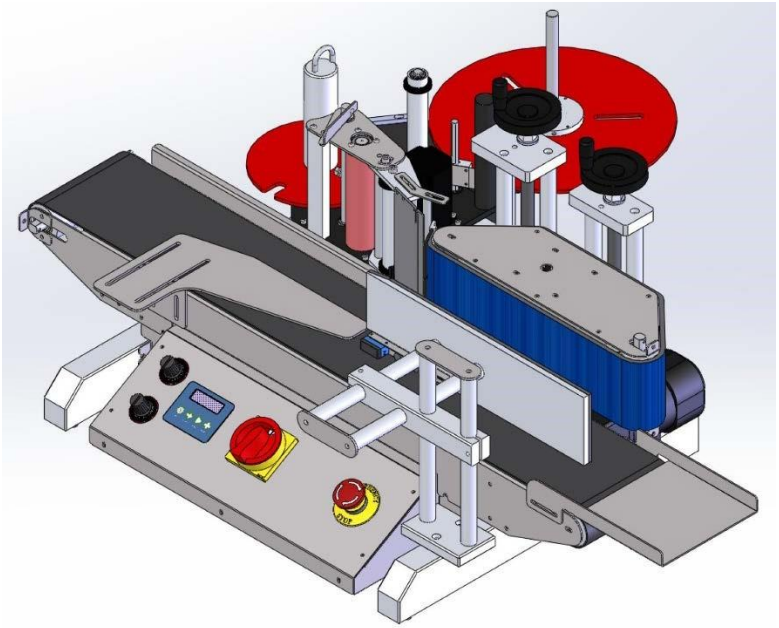
- Adjust the **height of the label applicator** by the **hand wheel** to its proper position.
- Adjust the **bottle sensor** to its proper position for higher precision.
  (If you want the labels to be dispensed **earlier** for labeling, move the sensor **rightward**; if you want the labels to be dispensed **later** for labeling, move the sensor **leftward**.)

Step 2.

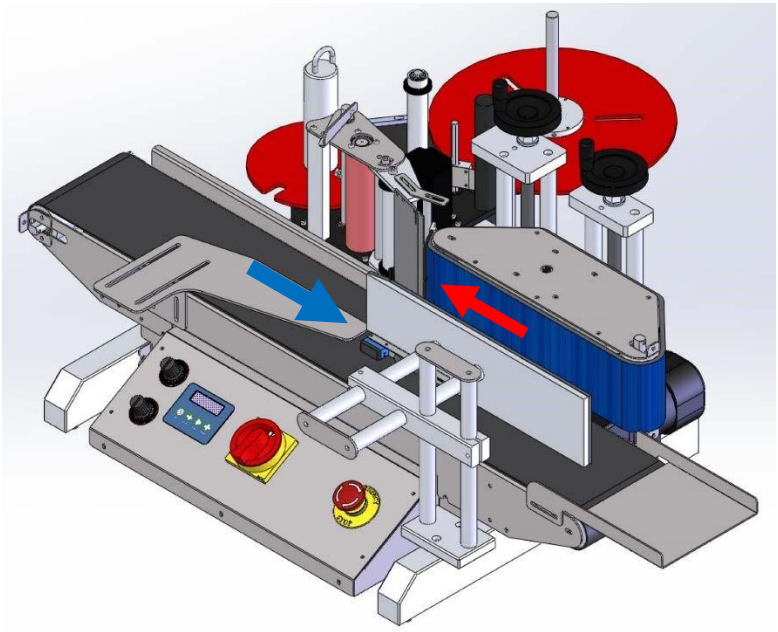


- Adjust the **width of the rotary flattening set** and **guide rail** according to the product's sizes.
- Put two products on the conveyor belt (as the two white dots shown in the picture), loosen the two handles (follow the blue arrows), push the plate toward the product to its proper width and height (follow the red arrow and the red line), then tighten the handles again.

Step 3.

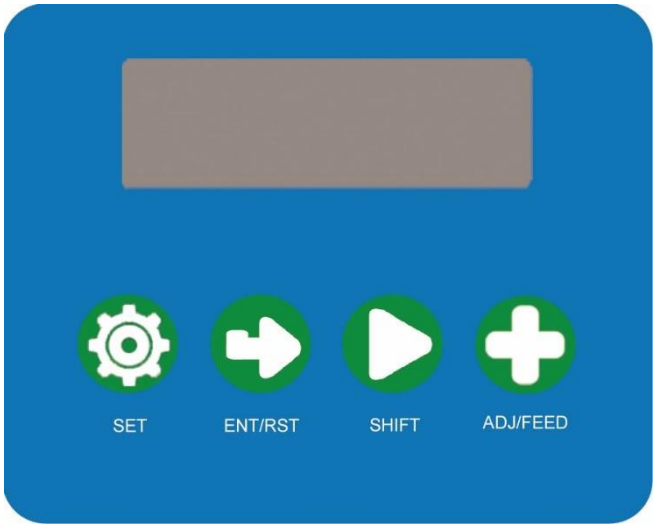


- Twist the emergency stop buttom.
- Turn the power ON (turn it clockwise to be vertical as shown in the picture).
- Turn the rotate speed to its full capacity.
- Turn conveyor speed to its full capacity. **Step 4.**



- Wave your hand in front of the the sensor (follow the blue arrow) **for several times** to test label dispensing until the dispensing length of every labels are equal (follow the red arrow).

Step 5



- Press SET to set parameters for your product
- Delay Start (1P): 1P represents the time of delaying starting the labeler.
- Length of Label Dispensing (2L): 2L represents the length of the label that is dispensed from the front end of the dispenser.
- Labeling Speed (3E): 3E represents the speed of labeling in forward motion.

After you complete above steps, this labeler is ready for operation.

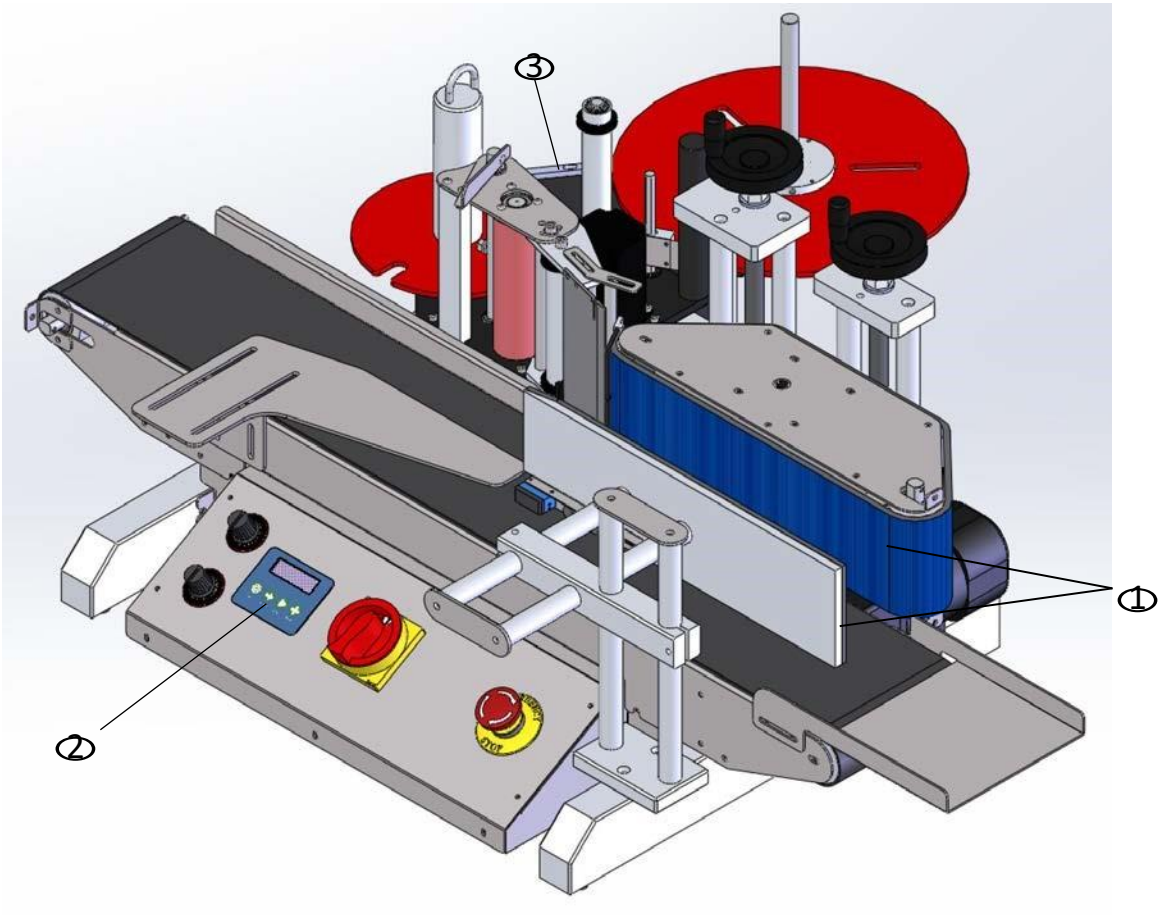
5 TROUBLESHOOTING

Trouble(s)	Possible Causes & Solutions
Out of Power	1. Check if the power switch is **ON**. (switch to " — ") 2. Check if the emergency button is **ON**. 3. Check if the power supply cable is loose or broken. 4. Check if the safety fuse blows. (Please follow appendix 8 to set up.)
No Reaction	1. Check if the label sensor work or not. (Please follow appendix 7 to set up.) 2. Check if the control panel work or not.
Dispensing Continuously	1. Parameter 2L is set too large. 2. Check if the label sensor work or not. (Please follow appendix 7 to set up.) 3. Check if the start sensor is under D mode.
Failure in Dispensing	1. Parameter 2L is set too short. (Please follow p.6-7 to set up.)
Crumple Labeling	1. Parameter 3E is set too high. (Please follow p.6-7 to set up.)
Lopsided Labeling	1. Product is not on the conveyor belt. 2. Label paper threaded is curved or loose. 3. Label applicator is not in the same horizon.
Control Panel Show "HELP"	1. O-ring of label applicator is broken. (Please follow appendix 9 to replace o-ring.) 2. The length of label set is wrong. (Please follow appendix 10 to set up.)

- In case there is any problem or malfunction that you cannot solve, please contact us immediately.

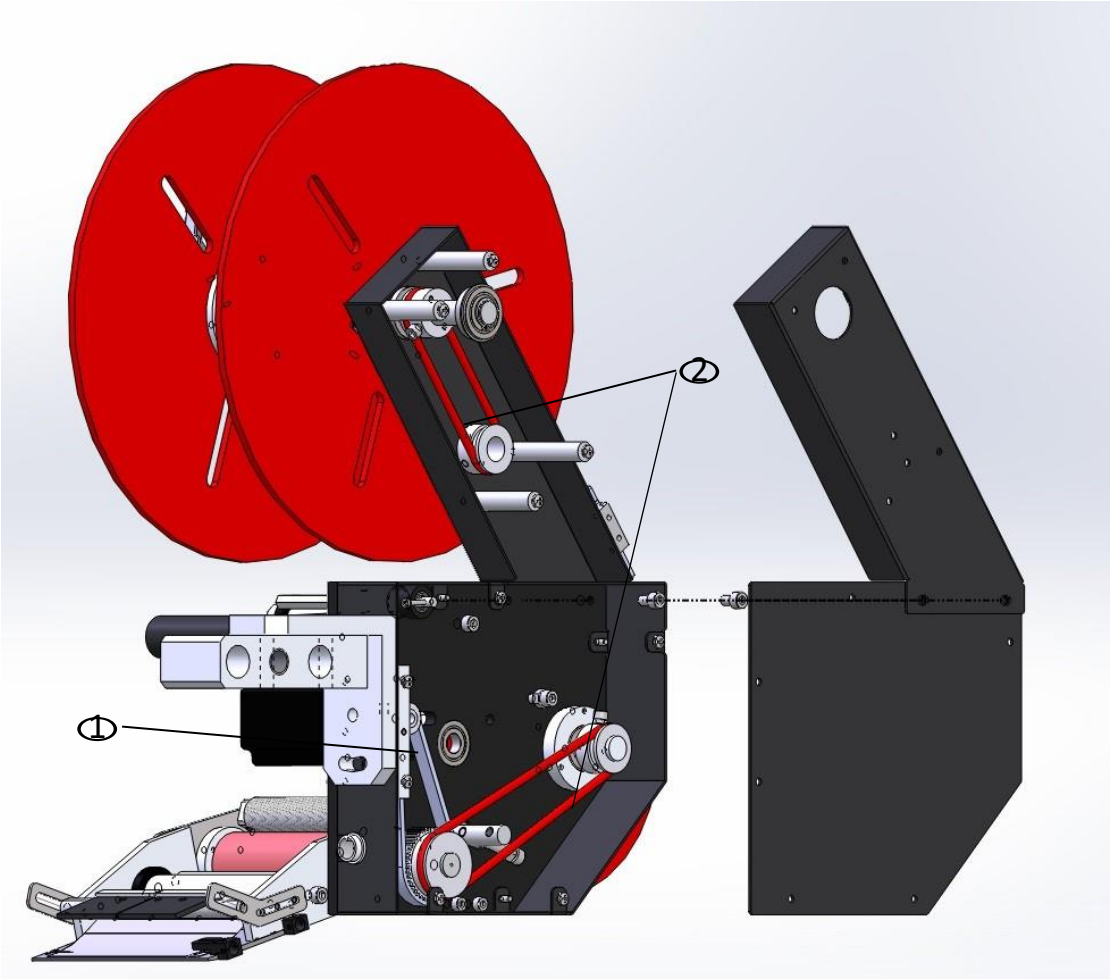
6 SPARE PARTS

6.1 MAIN MACHINERY



No.	Qty	Item
1	1	Wrap Belt for Rotary Flattening Set
2	1	PCB Board (BL1000)
3	1	Amplifier

6.2 LABEL APPLICATOR



No.	Qty	Item
1	1	Timing Belt
2	2	O-ring

7 APPENDIX – AMPLIFIER SETTING

7.1 AMPLIFIER

1. SET Push this button for sure to set.

2. ADJUST Value adjusting.

3. MODE Mode choosing.

7.2 AMPLIFIER SETTING STEPS

STEP1 Check if the mode is under value mode, if not, please press MODE button to alter mode.

STEP2 Find the value of the **waste paper** inspected and memorize the value. Assume the value is A.

STEP3 Find the value of the **label paper (label and waste paper)** inspected and memorize the value. Assume the value is B.

STEP4 Counting the amplifier value. Assume the value is C.

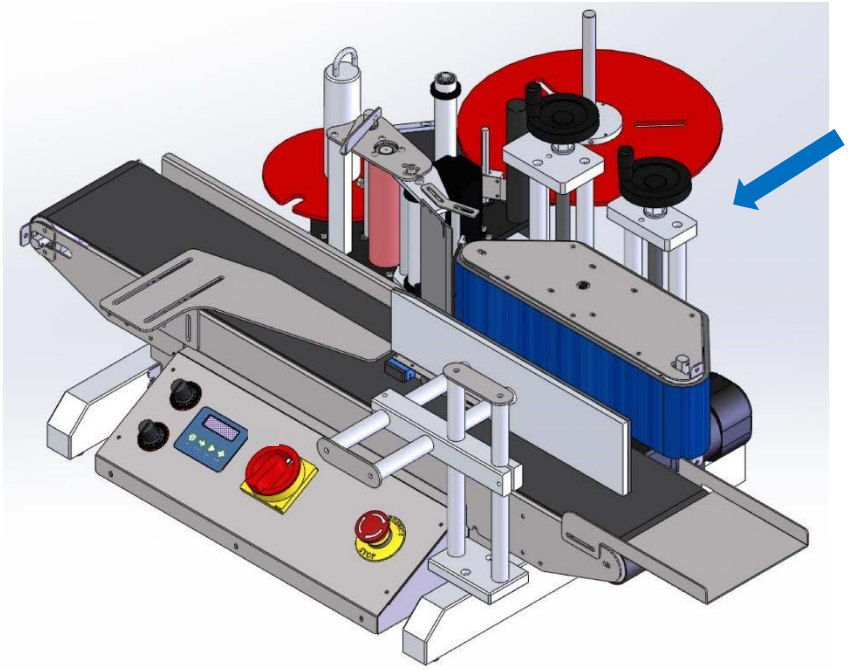
Formula: C=[A+B]/2

STEP5 Press the ADJUST button, the value on the screen will flash.

STEP6 Keep press the ADJUST button until the value is **bigger** than the amplifier value.

STEP7 When the value is bigger than the amplifier value, left the ADJUST button and the value on the screen will flash which means finish setting. Then, label can be dispensed smoothly.

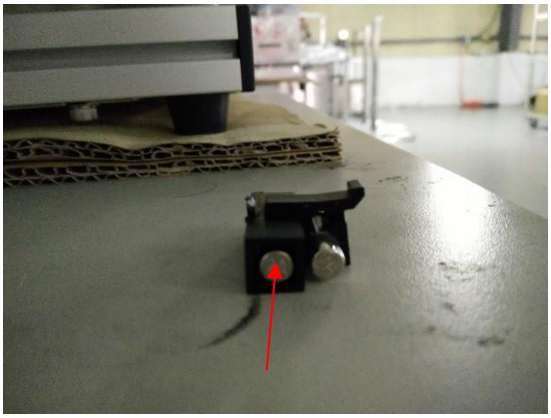
8 APPENDIX – FUSE



Socket is behind the machine.

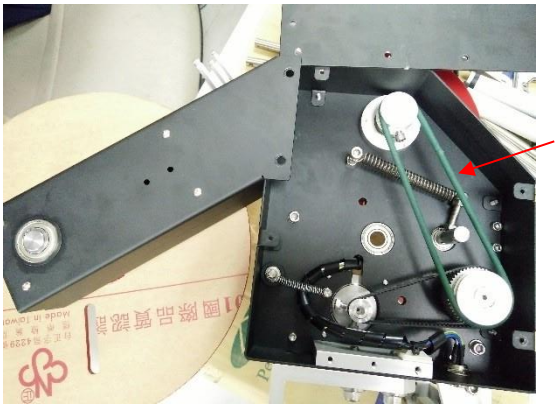
The fuse we put next to the socket. Pull it out to check and replace the fuse.

The fuse (follow the arrow) is spare.



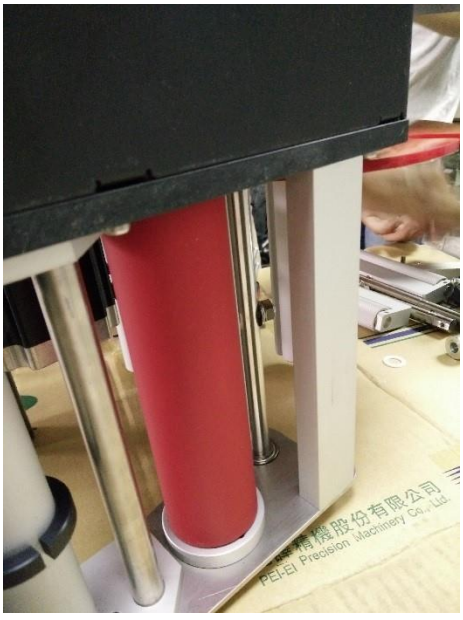
9 APPENDIX – O-RING REPLACEMENT

Step1. Loose the 8 screws circled.



Step2. Open the back cover.

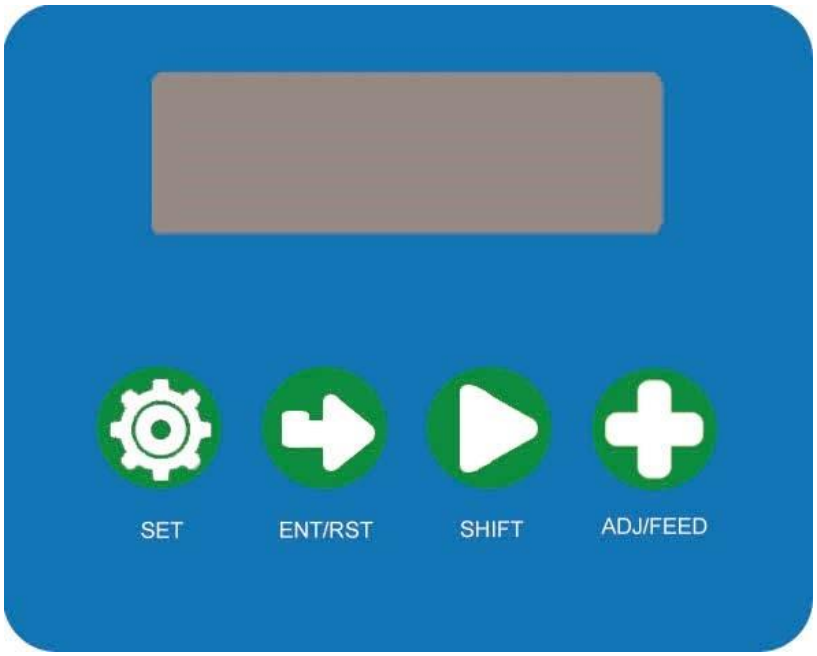
Step3. Take out and replace the o-ring.



Step4. After replacing the o-ring, turn the driving shaft to check the o-ring can be rotated.

Step5. If the o-ring can be rotated, you can fit the cover back.

10 APPENDIX – LABEL LENGTH SETTING



When you change label roll from **short label** to **long label**, due to the setting of label length, label sensor can't detect long label properly, therefore, control panel will show "HELP."

Press ADJ/FEED button about 2 seconds to dispense 1 label and reset the label length.

11 APPENDIX – CLEAR LABEL SENSOR SETTING

ON LED –green	Constantly ON when power is applied
OUT LED –yellow	ON: detects label gaps. OFF: detects labels.
WARN LED – continuous red light	ON: Teaching error. Please adjust the sensor. OFF: error-free operation.
WARN LED – flashing red	Short-circuit at the switching output.

11.1 Press the **T button** until the *green and yellow light flash* in the meantime and release T button.

11.2 Pull the label gap to go through the **fillister** of the sensor about 3~5 times. Make the sensor to induct label automatically.

11.3 Press the button briefly once more to finish setting.