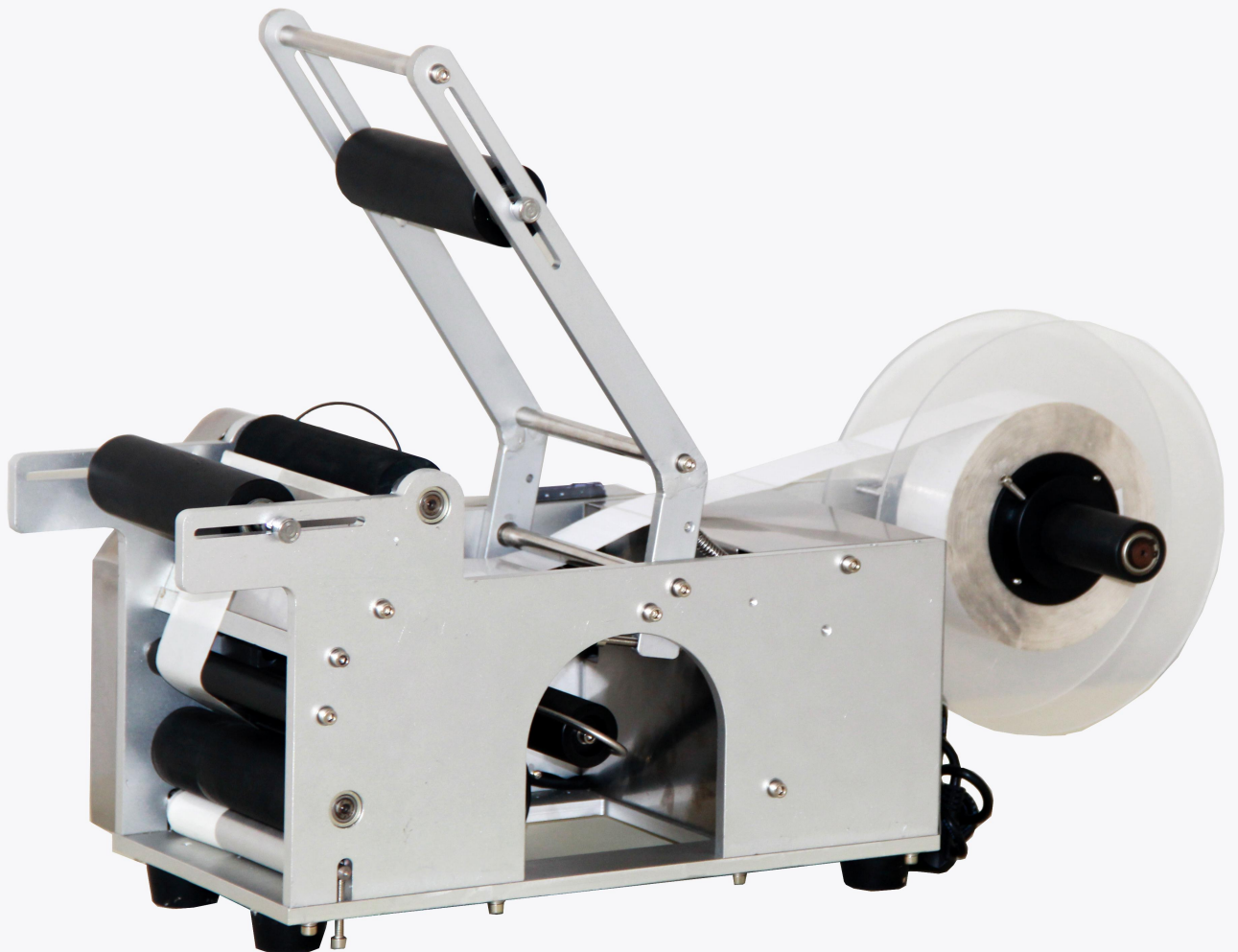


**Model:MT-50S**

# Semi-automatic Round Bottle Labeling Machine



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## 1. Outline

### 1.1 Range of Applications

MT-50 Semi-automatic Round Bottle Labeling Machine is ideal equipment for semi-automatic labeling of household chemicals, food and beverage, pharmaceutical, chemical, and the round bottle in the other light industry products on the packaging.

This machine is suitable for round bottles of various sizes and the production of small quantities of many varieties. This machine can be used in stand-alone label only.

For other uses, please consult your manufacturer. For damage resulting from any non-compliance with prescribed use, the manufacturer is not responsible for warranty. Such risks are borne by the user alone.

Strict compliance with the instruction manual is part of the requirements of this machine.

### 1.2 Performance Characteristics

This machine has a reasonable structure, reliable performance and simple operation with optical detection and accurate labeling.

1. It applies advanced labeling agencies to ensure that the labeling accuracy.
2. It has bottle label for a variety of specifications with strong adaptability.
3. Label light sensitivity is adjustable. For label backing paper of different transmittances, it could compare and adjust the sensitivity and compare and make the best adjustment to the label of different lengths to ensure the normal feeding and smooth and accurate labeling.
4. All agencies, including the rack, and feeder, barrier boom and fastener adopt stainless steel and aluminum materials, which never rust or produce any pollution. It ensures GMP environmental requirements.
5. System control components all have ISO certification and undergo a rigorous assessment of incoming plant test to ensure the reliability of the various functions.

## 2. Security Matters

### 2.1 Security Warning

Violation of these safety warnings and cautions may result in serious personal injury and property damage. Qualified operating personnel must be familiar with all safety warnings in this manual and precautions. Correct transport, fixation, and careful test run are the key to ensure safe operation and to prevent the failure. Following reference has made the special prompt to this instruction booklet related with the safe operating process. Each reference is marked by the corresponding diagram by its side.

Meaning of this diagram: Attention!

“Attention” is used to mark activities or operation processes that have an important influence on the normal operation of the equipment. Violation of these items may lead to equipment damage.

Meaning of this diagram: Warning!

“Warning” is used to mark activities or operation processes that bring security vulnerabilities to person and property due to improper operations.

### 2.2 Electrical Connection

During electrical operation, some parts may have voltage endangering personal safety. Electrical systems or equipment could only be operated by skilled electrician themselves or under such control and supervision of trained personnel, together with compliance with the corresponding electrical engineering regulations.

Attention: This series of products require the installation of a safe and reliable electric leakage protection device.

### 3. Technical Parameters

#### 3.1 Machine Parameters

Maximum yield of leaflet of non-positioning label	50 /min (related to bottle and label size)
Labeling bottle diameter	Φ12-90mm
Power	50W
Power supply	220V±5%50HZ
Use ambient temperature	5-45℃
Use relative humidity	15-90%
External dimension (length x width x height)	640×350×460mm
Weight	35kg

#### 3.2 Feeder Parameters

Feeding speed	3-15m/min
Labeling accuracy (excluding packaging and labeling errors)	±0.5mm
Minimum label length	10mm

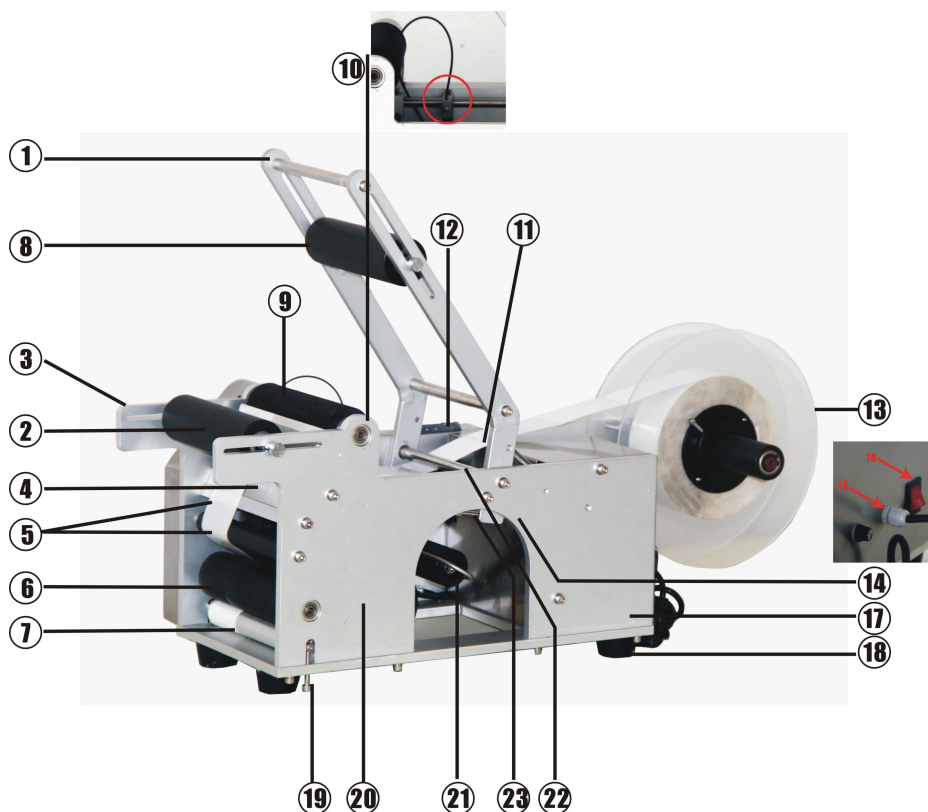
#### 3.3 Label Parameters

- A. Label backing paper adopts glassine backing paper (i.e. transmittance backing paper or translucent backing paper)
- B. Label tissue paper thickness is less than 5cm
- C. External label roll diameter <Φ280mm, internal label roll diameter for Φ76mm

### 4. Structure and Installation

- 4.1 Installed Label Volume      Pull label paper according to the direction in Figure 1





- ① Pressure bottle arm    ② Bottle-holding roller    ③ Bottle supporting bracket    ④ Stripping board  
 ⑤ Transition roller    ⑥ Pulling soft roll    ⑦ Pulling knurled wheel    ⑧ Pressure bottle wheel  
 ⑨ Labeling soft roll    ⑩ Fiber base    ⑪ Lever    ⑫ Sensor    ⑬ Paper tray    ⑭ Micro switch    ⑮  
 Socket    ⑯ Power switch    ⑰ Control module    ⑱ Feet    ⑲ Lever adjustment screw    ⑳ Drive  
 motor    ㉑ Paper receiving wheel    ㉒ Elastic pressure board    ㉓ Touching rod screw

## 5. Adjustment before Starting

### 5.1 Adjustment of Bottle Bracket

Release the following two set screws of bottle bracket (Figure 2-3) and adjust and move the bottle bracket according to the diameter of the required labeling bottles to make the bottle between bottle supporting roll (Figure 2-2) and label soft roll (Figure 2-9). The greater the bottle diameter is, and the greater the spacing between two rollers will be. Tighten the screws after adjusting to the appropriate location.

### 5.2 Adjustment of Pressure Bottle Wheel

Release the screws at both ends of the pressure bottle roll (Figure 2-8) and adjust the bottle roll to the appropriate position so as to make the bottle pressure roller press the bottle center along with pressure bottle swing arm (Figure 2-1). Tighten the screws after adjusting to the appropriate location.

### 5.3 Adjustment of Touching Pole Screw

First of all, loosen the rod screw down and rotate pressure bottles arm (Figure 2-1) to make pressure bottle roller (Figure 2-8) suppress the required labeling bottles. Slowly adjust pole screws in to micro switch (Figure 2-14) until clips touching micro switch sounds slightly. Tighten the nut after adjusting to the appropriate location.

### 5.4 Adjustment of Lever Position

Adjust the shift rod to an appropriate location to make the label has a correct location on the bottle.

## 5.5 Adjustment of Label Stripping Board

Adjust the label stripping board (Figure 2-4) to make it close to label soft roll (Figure 2-9) as much as possible, without contacting it.

## 5.6 Installation of Self-adhesive Plastic Label

As shown in Figure 1, install the whole self-adhesive label onto the paper tray (Figure 2-13) to make self-adhesive label facing upward and the bottom side down. Pass through the conduction band lever (2-11) and elastic compression zone plate (Figure 2-22) to make the label pass through the gap between fiber seats (Figure 2-10). make the transition roller (Figure 2-5) move in a upward manner and pass through the gap between stripping plates (Figure 2-4) and soft labeling roll (Figure 2-9), and pass in a downward manner along the left of stripping board through transition rollers. Loosen label adjusted screws (Figure 2-19) at both sides to leave a distance between soft labeling roll (Figure 2-6) and label knurling wheel (Figure 2-7). Make the label pass the right side of soft labeling roll, and pass through gap between rollers to get to the left side of the lower label knurling wheel. Fix the label backing paper to the paper wheel (Figure 2-21) and fasten labeling adjusted screws on both sides to bring certain pressure to the label knurling wheel pressing on soft labeling roll. Moreover, pressure on both sides is balanced.

## 5.7 Adjustment of Pressure Board

Loosen elastic pressure board (Figure 2-22) bracket screws and rotate pressure board bracket to make pressure board press the middle of label hard. Make the elastic pressure board suppress the label to conduction band lever (Figure 2-11) and keep certain pressure of label, so as to enable the label pass fiber base smoothly (Figure 2-10). Then, fasten the pressure board bracket screws.

## 5.8 Adjustment of Optical Fiber Position Base

Adjust the position of optical fiber base (Figure 2-10) so as to adjust the pre-labeling, which should be at least lower than the center horizontal plane of labeled bottle to make it higher than the highest point of the stripping board.

## 5.9 Clean-up before Starting

Clean all sorts of things on the soft labeling roll, conduction band lever, peel board, pressure bottle wheel and chassis and check whether all screws are fixed.

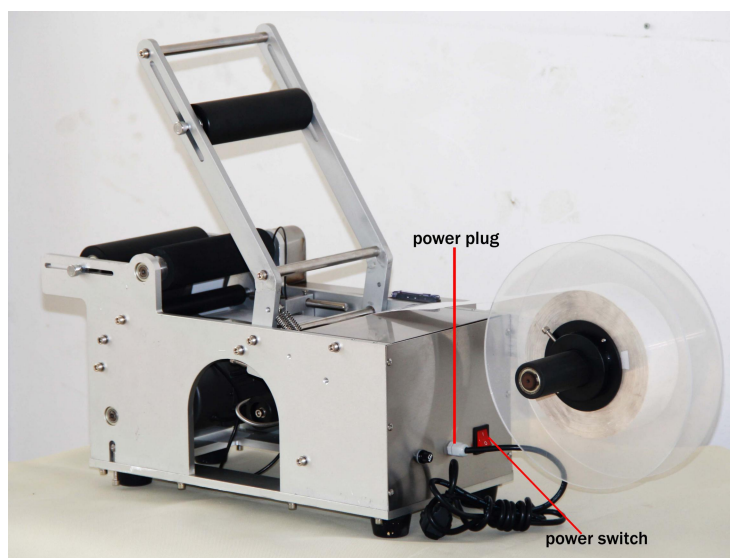
## 6. Electrical Adjustment

### 6.1 Power Supply and Switch

This model uses AC 220v voltage and adopts single-phase three-wire three-pin mains plug. Check power plug before use to ensure reliable grounding of the machine.

As shown in Figure 3, plug the power cord, and switch on the power supply.

Figure 3 Diagram of power





## 8. Off

As shown in Figure 3, directly turn off the power switch to stop the whole machine. When there is emergency or error labeling, directly turn off the power. Ensure that there is no danger when power is switched on again.

After work or in case of no use of machinery for a long term, turn off the power switch, unplug the power cord and clean machines throughout the surface.

## 9. Maintenance

Operating personnel of this machine must go through training to operate this machine. In order to maximize the effectiveness of this machine, in the use process, users must often be concerned about the operation of the machine and respond to the routine and regular maintenance of the machine. What follows is a guiding maintenance instruction.

### 9.1 Routine Maintenance

#### Everyday before starting

1. Before switching on the power everyday, check whether there are debris on labeling soft roll, label driving soft roll, conduction band pole and the stripping board.
2. Observe whether the power is normal and whether the power cord is broken.

#### Everyday before getting off work

Cut off the power and energy everyday before getting off work. The following work should be done after ensuring that the power is off:

Clean the machine with dry soft cloth to erase the surface of the machine. Compressed air could be used to places with much dirt and could not be erased easily.

2. Adhesive materials on rubber wheels, belt and stripping board could be erased with relatively dry wet cloth.

3. Attention should be paid to loosen screws of the machine in cleaning. Tighten them if there are.

### 9.2 Regular Maintenance

1. Clean the detection sensor every month.
2. Make maintenance of all rolls and conduction rods every week to clean oil and paint new butter.

## 10. Warranty

Warranty deadline of this product is half a year, starting from the date of purchase. Users could come to all nearby distribution units of the company for repairing or send the machine back to our company for repairing with warranty card in case of damage or failure to work normally resulting from adverse manufacturing of the product.

#### The following situation is not covered by the warranty:

1. Damage to the machine due to non-compliance with manual by user.
2. Damage to the machine due to inappropriate use of the user.
3. Damage to the control module of the machine due to excessively high or low use voltage.
4. Warranty receipt card does not match with the model or serial number marked on the product.
5. Machine disassembled by user.
6. Product warranty receipt card is not sent back to our company.
7. Surpass the maintenance deadline.

## 11.Common Faults

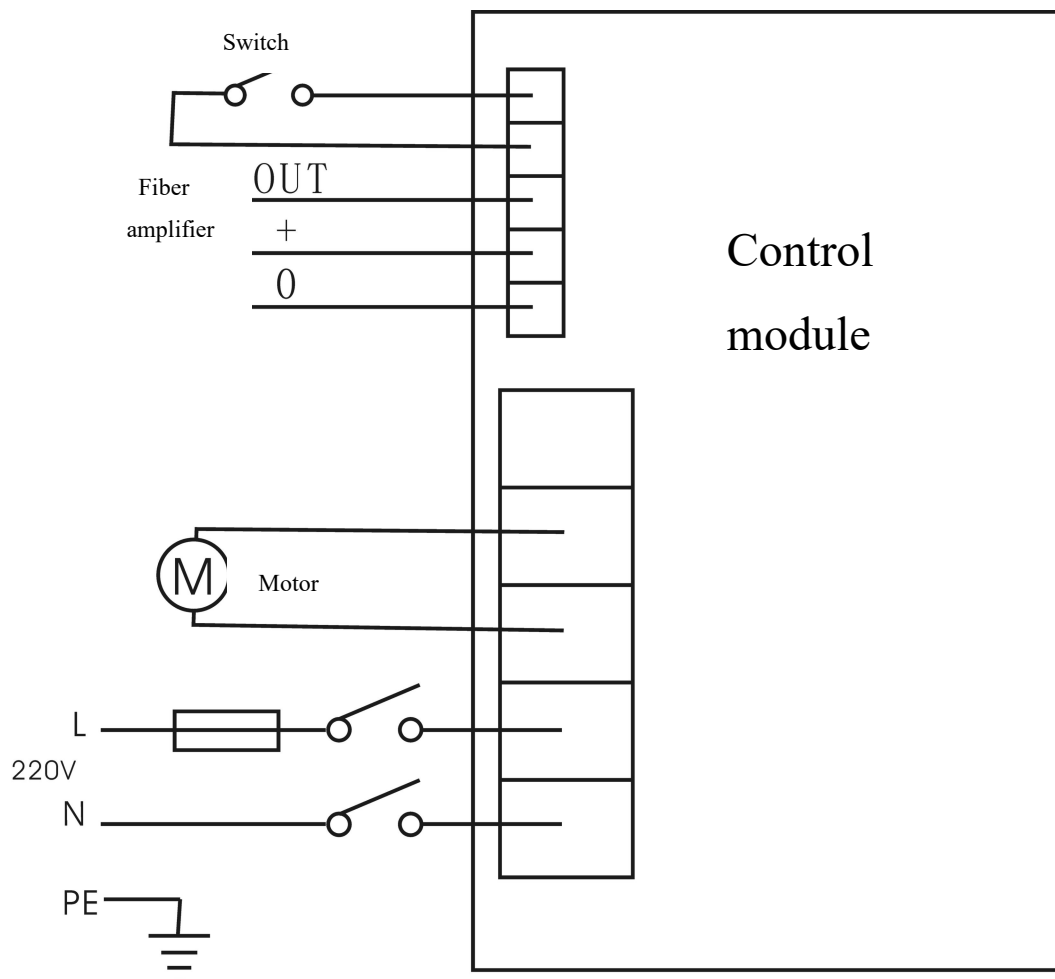
Phenomenon	Reasons and solutions
No label	Micro switch position is not right, and adjust micro switch position
	Micro switch fault and change micro switch
	Labeling knurling wheel does not press label hard and slips in driving the label. Tighten the label driving adjustment screws
	Power switch is off, and turn on power switch
Consecutive label	When optical fiber base position is wrong or when label belt fails to get through optical fiber base to inspect the position. Adjust optical fiber base position
	Sensor fault, and adjust or change sensor
Labeling axis position is inaccurate	Lever position is not positioned. Lock the lever
	Position of label on label stripping board is incorrect. Adjust label position again.
	Bottle bottom fails to stick to the lever in placement.
Label sticking failure	Reserved label is not long enough and prolong the reserved label.
	Adherent surface and label stickiness is insufficient or humidity is too great
	Pressure bottle wheels fail to compress the pasted bottle, and the pasted bottle does not roll
Wrinkle after label pasting	Reserved label is too long and shorten the label reserved length
	Surface of pasted bottle has debris.
	Label stripping board is too close to rolling oak rubber wheel. Adjust the distance to be appropriate
	Pressure belt board does not compress label belt hard, and the stripped label is not straight. Adjust pressure belt board, and appropriately compress label belt
Big dislocation of label head and end after label pasting	Stripping board and pasted bottle axis are not parallel. Adjust the position of adjustable wheels and stripping board to make bottle supporting wheels, stripping board and labeling soft roller parallel.
	Label belt swings back and forth in slanting or labeling. Tighten the conduction band ring and do not make label belt swing back and forth.
	Errors on the labeling of the pasted region are too large in diameter due to pasted materials
	Distance between label stripping board and bottle is too long, or W has slight collision. The normal state is about 5-10mm
	Installation board of label stripping board is not fixed, and shivers in the labeling process. Fix screws again
	Bottle is unclean or wet, and change a clean and dry bottle



## 12. Table of Repair Parts

Serial number	Code	Name	Material	Notes
1	300XL Width 15	Timing belt (double-sided)		Used for pulling labeling soft rolls
2	6801ZZ	Deep groove ball bearings		Used for part of transition roller
	61903ZZ	Deep groove ball bearings		Used for part of paper supply tray axis
	16001Z	Deep groove ball bearings		Used for part of pulling labeling soft rolls
3	1A( $\Phi 5 \times 20$ )	Fuse		Power plug

## 13. Circuit Control Diagram



## 14. Packing List

1. Semi-automatic Round Bottle Labeling Machine	1
2. Power grid	1
3. Fuse	1
4. Slotted screwdriver	1
5. Inner hexagonal wrench	1
6. Manual	1
7. Certificate of quality	1
8. Warranty receipt	1

## 15. Certificate of Quality

**CERTIFICATE OF QUALITY**

Product name Semi-automatic  
Round Bottle Labeling Machine

Model and specification MT-50S

Serial number \_\_\_\_\_

Inspector \_\_\_\_\_

Production date \_\_\_\_\_

Qualified product through  
inspection, factory granted

## 16. Warranty Receipt

Product Warranty Receipt

Product name: \_\_\_\_\_

Name of customer: \_\_\_\_\_

Model: \_\_\_\_\_

Address: \_\_\_\_\_

Number: \_\_\_\_\_

Tel: \_\_\_\_\_

Name of dealer: \_\_\_\_\_

Time of purchase: \_\_\_\_\_