



NT-100 Peristaltic Pump Filler

Operation Manual



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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.**



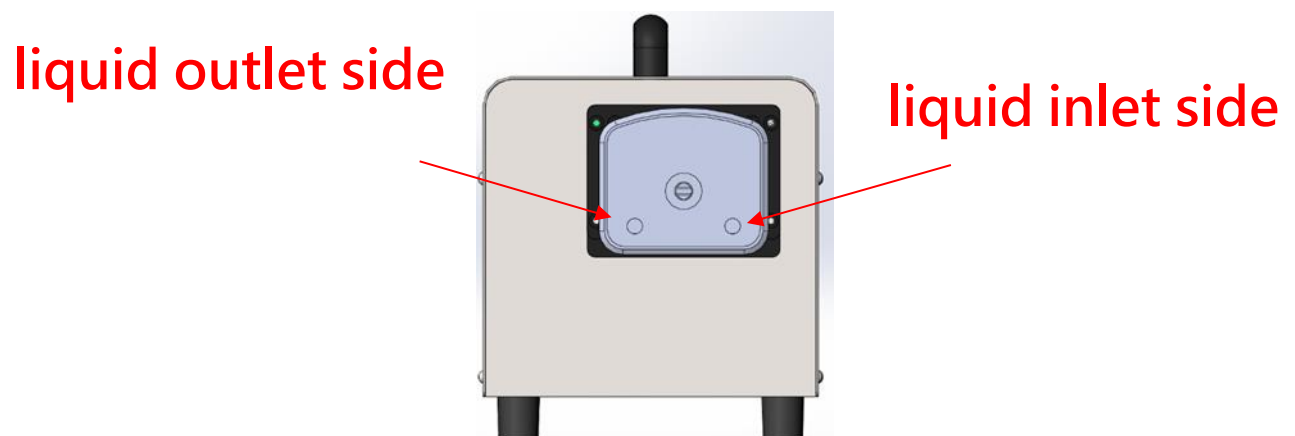
- **Do not place the machine near high temperature or inflammables. The places where are not stable or where the machine will be crashed easily are also not suitable to place the machine.**
- **To prevent from getting electric shocks, the machine cannot be placed in a humid environment.**
- **Do not 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 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.

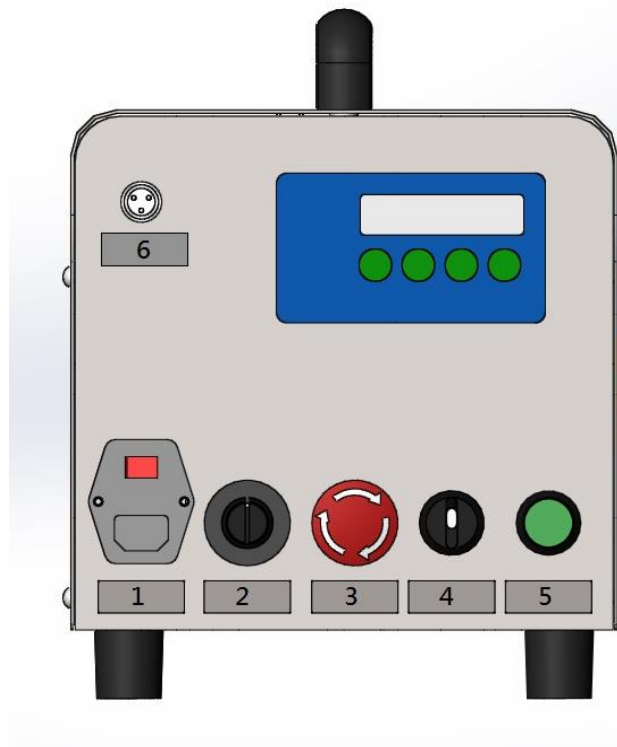
2 Product Description

2.1 Components

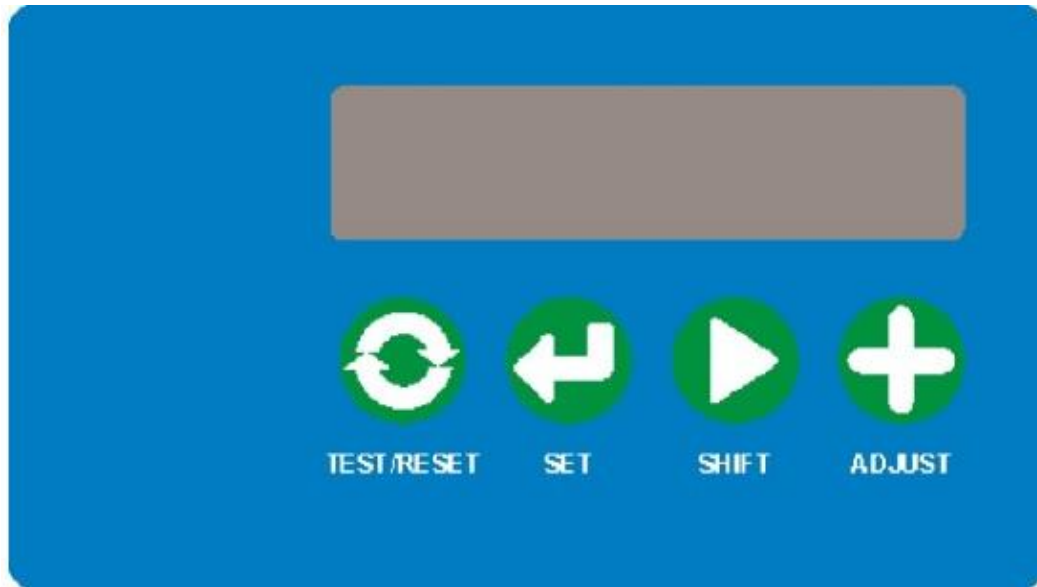


2.2 Control Interface

1. Power Switch /
Socket for Power Supply Cable
2. Knob for filling speed adjustment
 - Clockwise: speed up.
 - Counterclockwise: slow down.
3. Emergency Stop Button
4. Knob for Filling Mode
 - Left: Test mode
 - Middle: Manual mode
 - Right: Auto mode
5. Start Button
6. Socket for Foot Pedal
7. Control Panel



2.3 Control Panel



1. TEST/RESET
Keep pressing to reset the filling counter to zero.
2. SET
 - Parameter choosing: for choosing the parameters you want to set.
 - Parameter entering: setting the parameters, you need to push SET button for entering.
3. SHIFT
This button is for shifting the location of the blinking cursor for adjusting parameters.
4. ADJUST
When the blinking cursor moves to any number of the parameters, pushing ADJUST button can adjust the number in circulation from 0 to 9.

2.4 Parameter Setting

P = Filling Volume

2.4.1 Push SET button, the screen will show P00000.

2.4.2 Enter the parameter for filling volume (please see P.4 for instructions).

Ex: After adjusting the parameter to 00250, push SET again to finish setting the parameter.

P.S This is the indicator volume instead of actual volume.



2P = Delay time for Auto Mode

In Auto Mode, whenever the machine finishes filling one bottle, it will fill the next one 2 seconds later automatically as the setting shows 02.0 in the picture on the right.

★ This setting is ONLY for Auto Mode.



3E = Delay time for Manual Mode

In Manual Mode, after pushing the start button, the machine will delay for a certain time and then it will start filling.

As the picture shows on the left with 00.5, it means when you push the start button, it will start filling 0.5 second later.

★ This setting is ONLY for Manual Mode.







2.5 Technical Specification

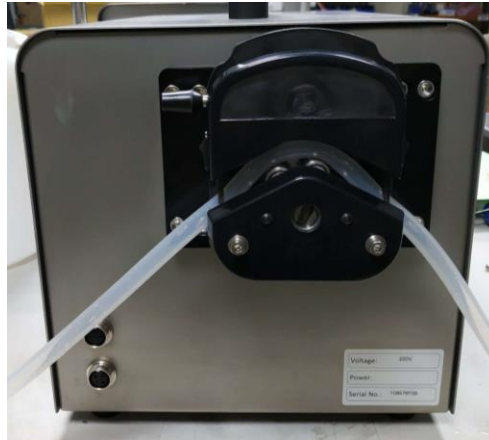
| Model | |
|-------------------------|--|
| | FG-100 |
| Filling Range | 10–5000 ml |
| Filling Accuracy | ± 1 % |
| Power Supply | 110 or 220 VAC; 50/60 Hz; Single phase |
| Driven Device | DC Motor |
| Dimension | (L) 475 mm × (W) 340 mm × (H) 305 mm |

3 Before Operation

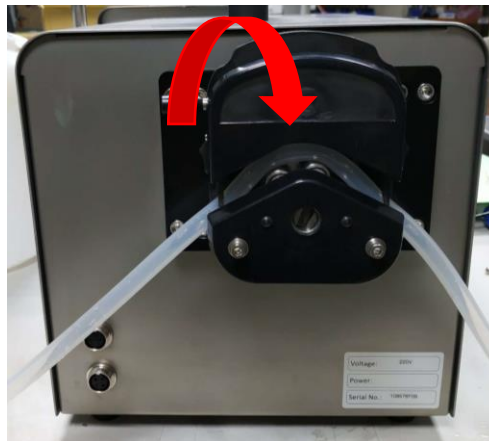
3.1 Connections

| | |
|--------------------------------|--|
| <p>Step1 Open the pump.</p> |  |
| <p>Step2 Open the gripper.</p> |  |

Step3 Insert the tube into the slot.



Step4 Close the pump.



3.2 Driven Pump And Dispensing Air

3.2.1 Switch the filling mode to the left to Test Mode.
(Marked 4 in the picture on the right.)

3.2.2 Adjust the filling speed over than 70. (Marked 2 in the picture on the right.)

3.2.3 Aim the opening of the output tube to the tank or other container and push the start button continuously. When the pump starts operating, the liquid will be sucked and filled into the filling tubes.

3.2.4 Please push the start button continuously until there is no more air in the filling hoses and then assemble the filling nozzle back to the opening of the outlet hose immediately.

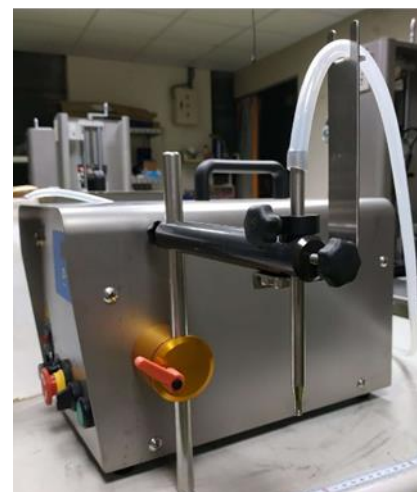


3.2.5 Fix the filling nozzle onto the bracket
and then the preliminary operation is done.

TIP 01: While testing, please adjust to HIGH filling speed to help the air to eliminate from the filling hoses. (This action can prevent from influencing the filling process afterward.)

TIP 02: The liquid in the hoses has to flow out smoothly without air so that it will not affect the filling accuracy.

TIP 03: The best way to fill is to let the surface of the filling liquid in the tank higher than the pump.



4 Operation

| | |
|---|--|
| <p>4.1.1 Switch on the power and the screen will show the number “0”.</p> | |
| <p>4.1.2 Turn the emergency stop button (as shown on P.3) clockwise to activate the function.</p> | |
| <p>4.1.3 Place the bottle (or container), which you want to fill, under the filling nozzle and adjust the machine with proper filling speed. (The larger the scale is, the faster the filling speed will be. However, too fast or too slow will both affect the filling accuracy.)</p> | |

| | |
|---|--|
| <p>4.1.4</p> <p>Switch the knob for filling mode choosing to Test Mode, push the start button continuously until the required filling volume, and then note down the parameter shown on the screen.</p> <p>★ Please push continuously, or the parameter will not be accurate for the filling volume.</p> | |
| <p>4.1.5</p> <p>Switch to <u>Manual Mode</u>, and get into the parameter setting to enter the parameter you noted down from the previous step. (Please see P.5 for the control panel and the instructions for setting.)</p> | |

4.1.6

After setting, the screen will show the value “ 0 ” again, and the filler is ready for operating.



4.1.7

While filling, the screen will show the number of the bottles (or containers) being filled to assist the operator to measure the production.



5 Maintenance

- 5.2.1 Be sure to dry the hands before operating the machine for setting and adjusting to prevent from getting electric shocks or causing short circuit.
- 5.2.2 Avoid filling materials that is higher than 400C because liquids with higher temperature will cause resistance overloading of the control components and then affect the life span of the machine.
- 5.2.3 After filling, please be sure to clean the hoses and the pump to keep the machine clean.
- 5.2.4 If you need to fill liquids with “granule”, please filter before filling in case the granule may block the filler and shorten the life span of the machine.
- 5.2.5 Please be cautious while filling acid or alkaline liquids to prevent from splashing to hurt the operator(s) and the machine.

6 Troubleshooting

| Trouble(s) | Possible Causes & Solutions |
|--|--|
| Out of Power | <ol style="list-style-type: none"> 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. |
| No Reaction | <ol style="list-style-type: none"> 1. Check if the operation mode is Auto Mode. (see P.3) 2. Repeat the setting and filling processes. 3. Check if using a foot pedal or any manual operation assisting devices. Once using those devices, the filler will adopt the signal from them in priority. |
| Bubbles Appear in Tubes | <ol style="list-style-type: none"> 1. Be sure to eliminate air from the hose before filling. 2. Check if the inlet hose is immersed in the tank. 3. Check if the hose is fastened. 4. Check if the hose is broken. |
| Strange Noise/ Not Filling Smoothly | <ol style="list-style-type: none"> 1. Check if anything blocks up the pump. |

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