

SNEED PACK

Automatic Liquid Filling Production
Line:

Four Head Liquid Filler with
Peristaltic Pump - Tabletop



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Hey there,

Congrats on scoring your very own piece of the “SNEED-PACK Automatic Liquid Filling Production Line!” We’re stoked that you’re now a part of our automation tribe. This manual is like your compass to navigate through all your new gear’s cool features and hacks. Feeling like a deep dive? Swing by and schedule a video chat with our tech pros - just zap that QR code. Or if it’s a quick fix you need, the other QR code will whisk you away to our online Help Desk faster than you can say, “Automate everything!” Big thanks for choosing Sneed Coding - get ready to rock the world of automation with us!

Schedule a meeting with one of our technical service pros:



Visit our Help Desk:



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Safety Precautions



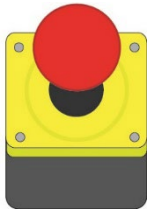
- ✿ Keep your hands clear of any moving parts while the equipment is in operation, and always power down prior to inspection. Failure to do so may cause bodily harm.



- ✿ Risk of electric shock, make sure the machine is properly grounded before use.



- ✿ Do not alter the mechanical or electrical systems. Any changes could result in malfunction or injury.



- ✿ Always turn off the power to the equipment before replacing any consumables.

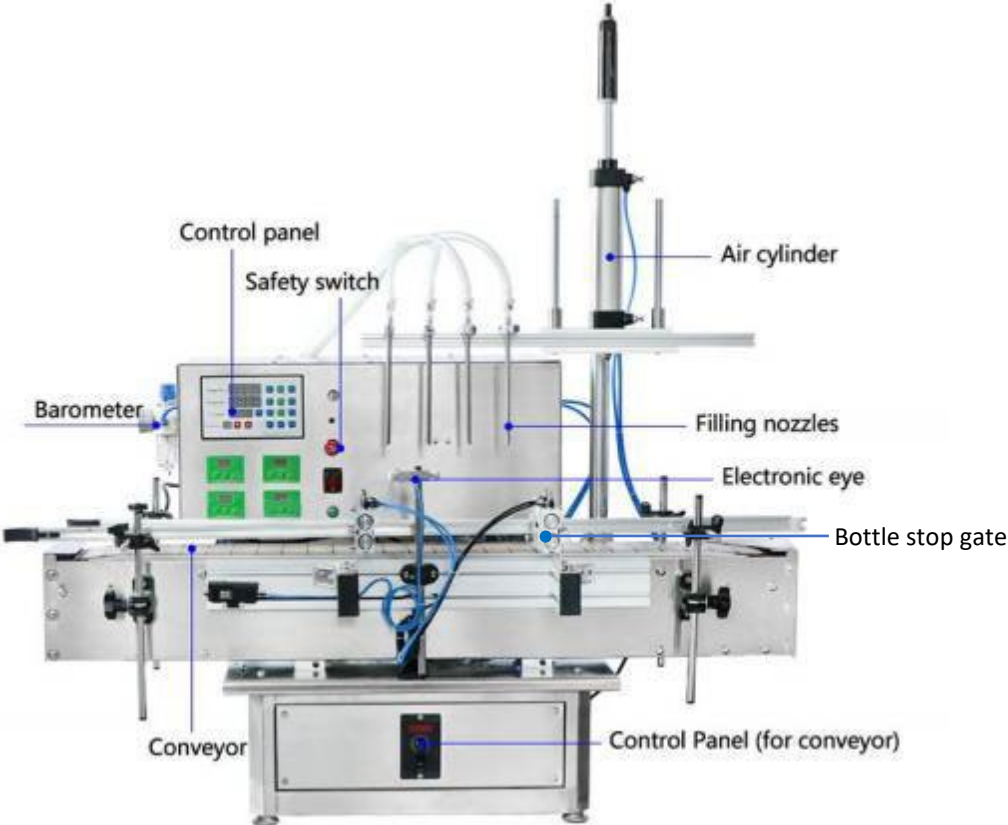
Description

The SNEED-PACK bottle-filling machine features a peristaltic pump, which simplifies the process of replacing tubes while ensuring that the liquid does not come into contact with the pump. As a result, the purity and cleanliness of the liquid are guaranteed, rendering it an optimal choice for handling highly corrosive substances like biological liquids, eye drops, sulfuric acid, hydrochloric acid, disinfectants, essential oils, solvents, and other similar materials.

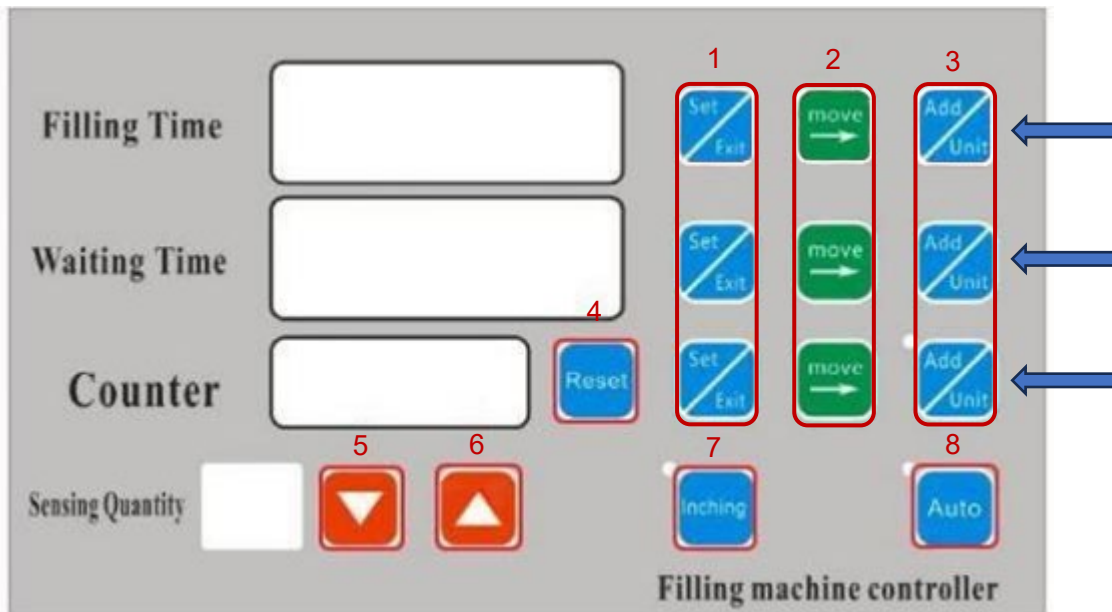
Parameters

Voltage	110V/220V 50-60hz
Power	60W (each pump)
Maximum flow velocity	2500ml/min (each nozzle and based on water)
Working speed	30-50 bottles/min
Filling nozzle	4
Air pressure	45 - 55psi
Filling accuracy	≤ 1% (for water)
Diameter of filling nozzle	6/8mm
Delay range	0.01-999.9s
Belt length	1m
Air hose connector	OD 8mm

Diagram



Control Panel



- **Filling Time:** This parameter refers to the duration of the pump's operation during each cycle, determining the amount of time it takes to fill a bottle completely.
- **Waiting Time:** The waiting time denotes the duration for which the stop gate remains open, allowing the newly filled bottles to pass through smoothly.
- **Counter:** The counter function serves as a production tracking mechanism, keeping a record of the total number of bottles that have been successfully filled.
- **Sensing Quantity:** This setting enables the specification of the number of bottles to be detected by the sensor before the filling process initiates, ensuring the system operates efficiently and accurately.

Button Guide

1. **Set/Exit:** Pressing this button once activates the input mode for the corresponding feature, allowing adjustments to be made. Pressing the button a second time confirms and sets the selected settings.
2. **Move:** This button cycles through the digits, enabling you to navigate and select the desired digit for adjustment.
3. **Add/Unit:** While a digit is selected, pressing this button increases the value of the currently chosen digit. Each digit cycles through values from 0 to 9.
4. **Reset:** This button is used to reset the counter, restoring it to its initial state.
5. **Decrease Sensing Quantity:** This function is designed to reduce the sensing quantity, enabling adjustments to the number of bottles to be detected by the sensor before the filling process begins.

6. **Increase Sensing Quantity:** This feature allows for an increase in the sensing quantity, providing flexibility in setting the number of bottles to be detected by the sensor before filling commences.
7. **Inching:** This button manually initiates the pump, serving the purpose of removing air from the tubes. This is particularly useful for priming the system.
8. **Auto:** Auto-fill mode, the default mode of operation.

Setting the pump speed



- The pump speed is set using the + and – buttons seen here. Each pump is set individually.

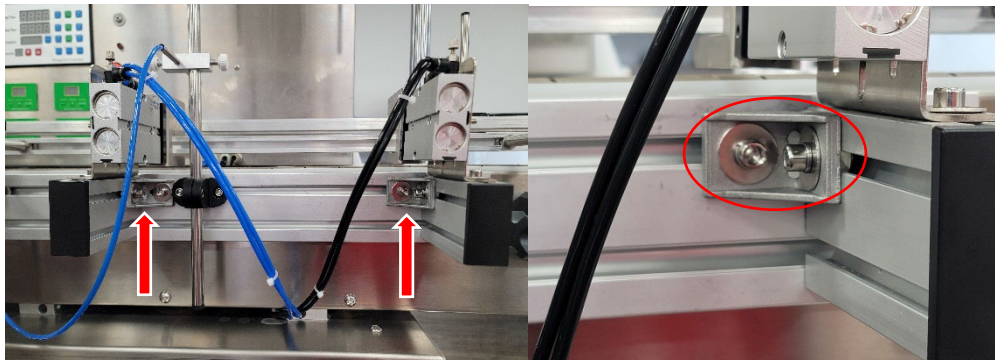
Achieving the optimal balance between pump speed and fill time is crucial to ensure a smooth and efficient operation of the machine. The pump speed determines the flow rate of the liquid, while the fill time dictates the duration it takes to fill each bottle. Finding the right equilibrium between these two factors ensures that the bottles are filled accurately and without disruptions. It is advisable to conduct thorough testing and adjustments to determine the ideal combination of pump speed and fill time that best suits the specific characteristics of the liquid being dispensed, and the bottles being used. This fine-tuning process will contribute to the overall effectiveness and productivity of the automatic bottle-filling machine.

Start-up

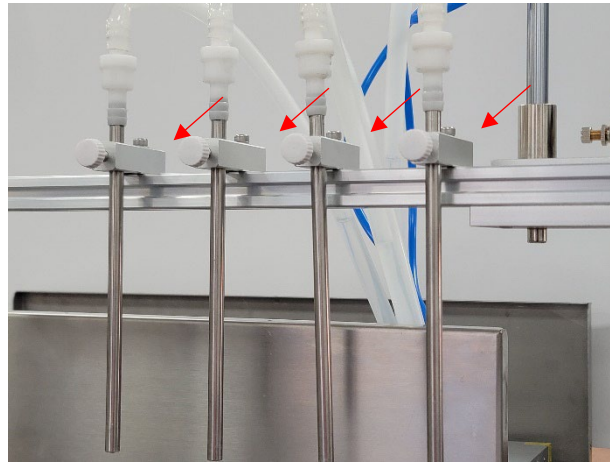
Before connecting the air source

Begin by ensuring that the stop gates and filling tubes are correctly positioned to accommodate your specific bottle. Proper alignment of these components is crucial to ensure smooth and precise filling.

- The stop gates can be adjusted using the screws seen in Figure 4. Use a 5mm hexagonal wrench to loosen them and position the stop gates. Be sure to leave at least a millimeter of space between the gate and the bottle to avoid binding.



- Next, adjust the filling tubes so that they line up as close to the center of the bottle opening as possible. The screws in Figure 5 can be loosened to move the filling tubes from left to right. Use a 4mm hexagonal wrench.



- The white thumb screws are used to move the filling tubes up or down. They should be positioned approximately 1 centimeter above the bottle opening.



- Finally adjust the sensor to trigger from the neck of the bottles. The sensor should be placed just to the right of the first stop gate. Refer back to Figure 3; “The Control Panel”, the sensing quantity indicates the number of bottles you intend to fill each cycle, set it accordingly.



Operation & Testing

Set the pressure manifold to between 40 and 50 psi

Priming The Hoses

1. Make sure all the hoses are entirely submerged in the liquid source to avoid air in the tubes.
 - Air in the fill hoses will cause inconsistent filling levels.
2. Power on each pump and set them to 50.
3. With bottles in position and ready to be filled, press and hold the “Manual” button. Do this until all the air is removed from the fill hoses.

Setting The Pump Time & fill rate

As stated previously, “Achieving the optimal balance between pump speed and fill time is crucial to ensure a smooth and efficient operation of the machine. The pump speed determines the flow rate of the liquid, while the fill time dictates the duration it takes to fill each bottle. Finding the right equilibrium between these two factors ensures that the bottles are filled accurately and without disruptions. It is advisable to conduct thorough testing and adjustments to determine the ideal combination of pump speed and fill time that best suits the specific characteristics of the liquid being dispensed, and the bottles being used. This fine-tuning process will contribute to the overall effectiveness and productivity of the automatic bottle-filling machine.”

- The machine is designed to ignore inputs after the first cycle and must be reset between tests.
1. Press “Manual” this sets the machine into normal operation mode.
 2. Turn on the conveyor and pass bottles past the conveyor.
 - Once the sensing quantity is reached the stop gate will close, and the filling tubes will lower and begin filling.
 3. Repeat this until you have the ideal fill rate/time to fill the bottles to the desired level.

That's a Wrap,

You've reached the end of the Four Head Liquid Filler with Peristaltic Pump guide – you're officially a pro in the making! Remember, when in doubt, this manual is your trusty sidekick. And if you ever need a hand, a high-five, or just a virtual fist bump, our tech pros are just a QR code away – you know what to do!

Go forth, automate, and conquer!

- Your friendly Sneed Coding Technical Services crew.

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