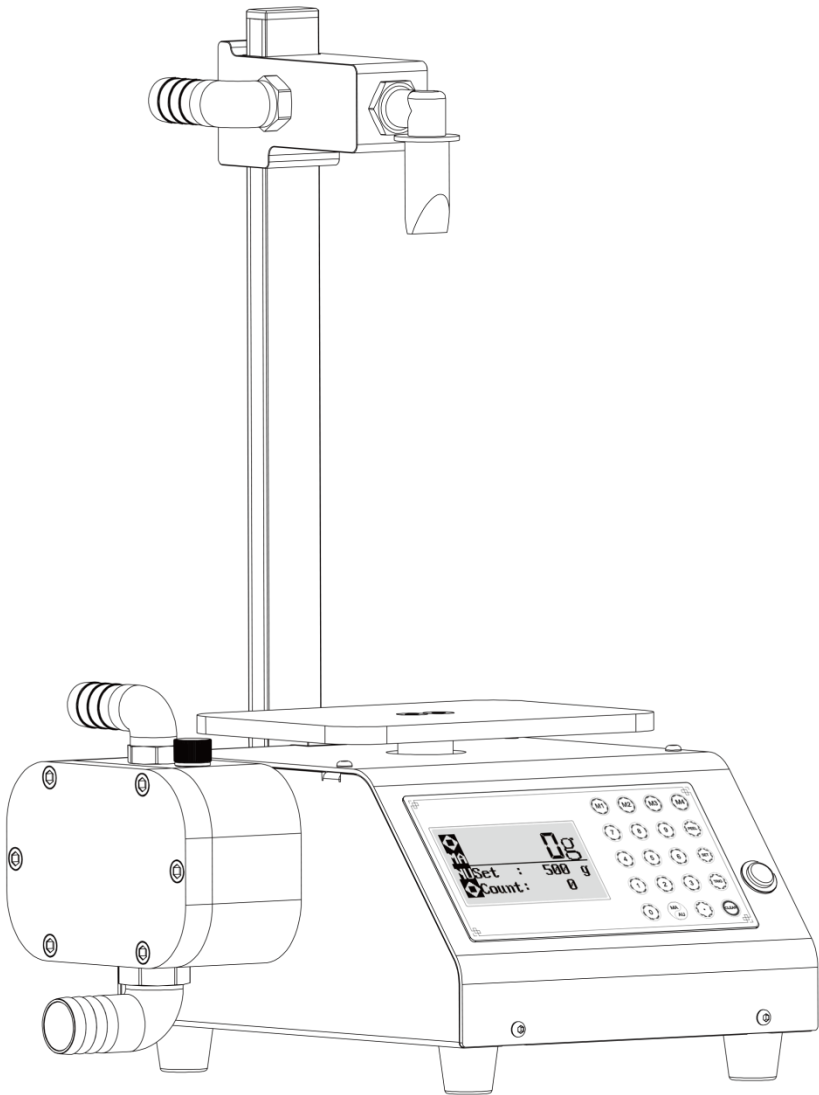


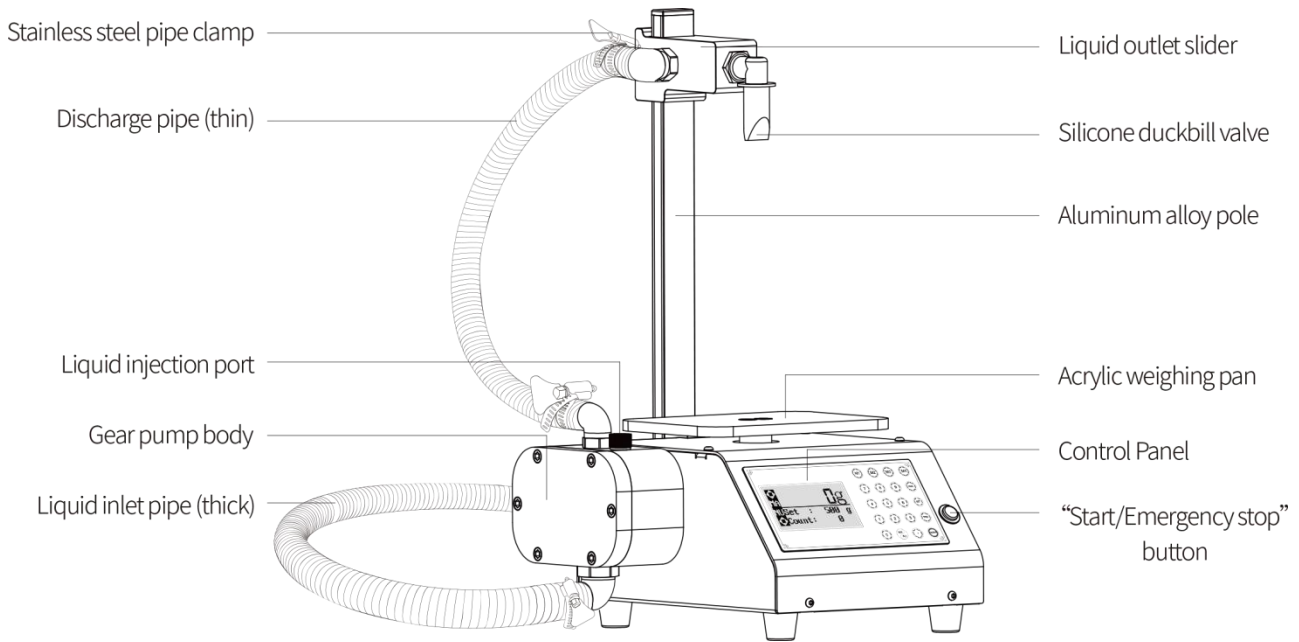
# 4-XP Honey Filling Machine Product Manual



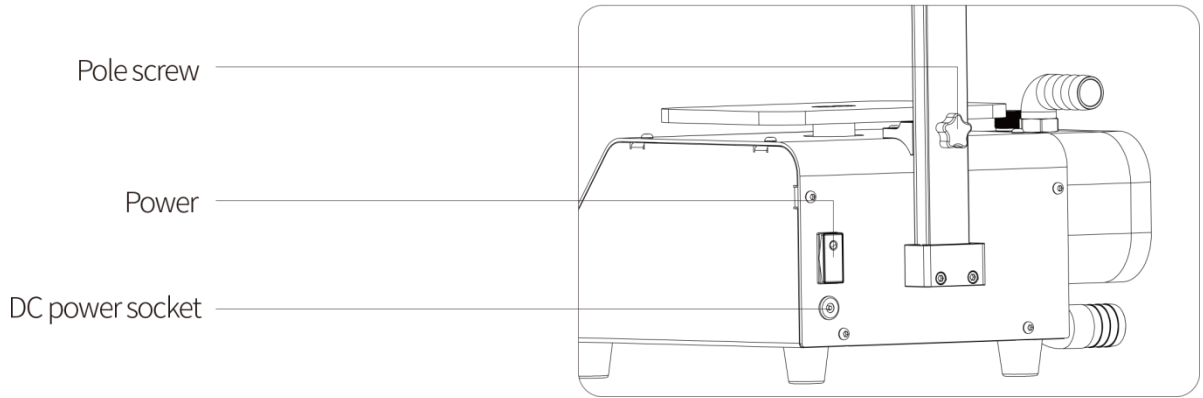
## **Table of contents**

- Product Parts Name
- Application Field
- 4-XP Basic Parameters
- Control Panel and Function Introduction
- Filling Methods and Adjustments
- Precautions
- Video Tutorial
- Packing List

# Product Parts Name



## Back



## Application Field

This model is suitable for high-concentration liquids with viscosity in the range of 1000cp-120000cp.

Examples: honey, pear paste, ,ketchup, oil, yogurt, salad, peanut butter, shampoo,detergent, resin, juice etc.

SN	Liquid medium	Absolute viscosity(CP)	Temperature(°C)	SN	Liquid medium	Absolute viscosity(CP)	Temperature(°C)
1	Air	0.0178	20	24	Paraffin	100-1000	60-80
2	Water	1	20	25	Mayonnaise	20	20
3	Beer	1.1	4.5	26	Ketchup	1000	29
4	Alcohol	1.2	20	27	Engine oil	1470	20
5	Milk	3	18	28	Detergent	1470	20
6	Whisky	3	20	29	Glycerin	1500	20
7	Cream 30% fat	14	16	30	Molasses	1760	20
8	Yeast slurry	20	19	31	Whey 48% sugar	180-1500	38
9	Cream 40% fat	48	16	32	Dish soap	1900	20
10	Juice	55-75	19	33	Peanut butter	2200	20
11	Oil	65	21	34	Salad dressing	1300-2600	19
12	Soap liquid	82	60	35	Honey	3000	20
13	Concentrated orange juice 30 Brix	91	71	36	Shampoo	3000	35
14	Cream 50% fat	112	16	37	Paper glue	3000	22
15	Egg	150	4	38	Resin	3500	25
16	Yogurt	152	40	39	Paint	3500	25
17	Tomato paste	195	19	40	Pear pulp	4000	70
18	Cough syrup	190	29	41	Hair oil	5000	21
19	Ink water	5-200	200	42	Fuel	5200	25
20	Lotion	200	21	43	Chocolate	7300	40
21	Ink	200-300	20	44	Glucose	4300-8600	75-85
22	Chocolate milk	280	49	45	Cream	10000	21
23	Concentrated Juice	100-500	20	46	Sour cream	15200	20

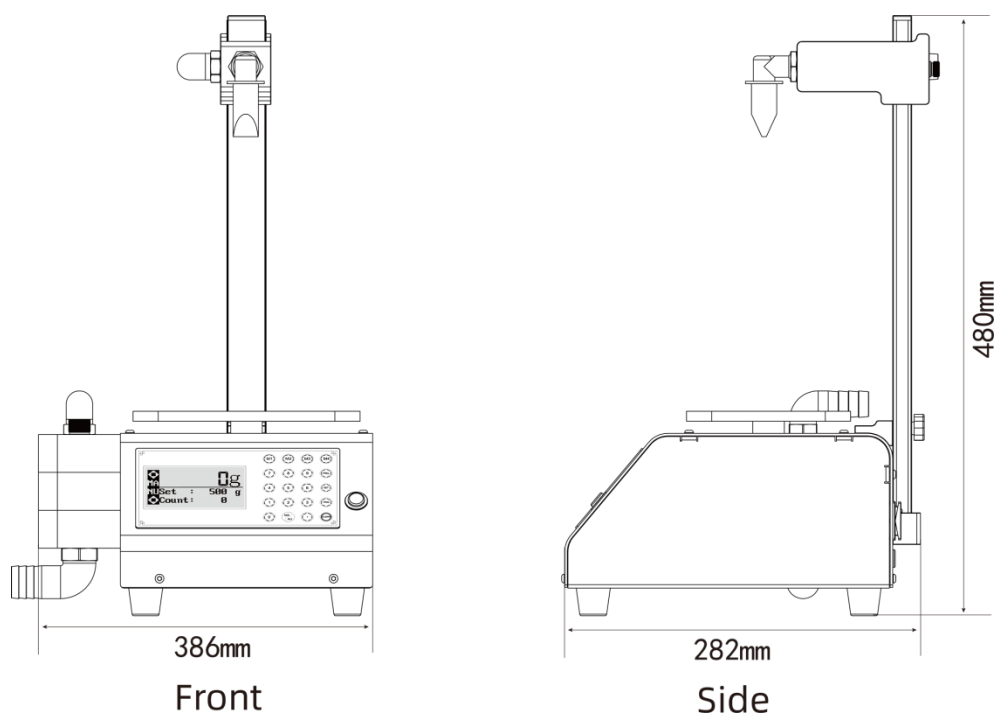
★Note: Commonly used units of viscosity measurement include "centipoise CP", "poise P", etc.

The conversion process is as follows:

1CP = 1mPa.s, 100CP = 1000 mPa(1P)

1000mPa.s=1Pa.s

## 4-XP Basic Parameters



Model	4-XP	Product dimension	286mm×282mm×480mm
Pump type	Gear pump	Filling mode	Quantitative weighing filling
Filling flow	4.5L/Min	Applicable volume	20g ~ 5000g
Rated power	≤120W	Rated voltage	DC12V AC100-240V
Suction lift	≤1.2m	Applicable viscosity	1000CP-18000CP
Filling height	0 ~ 240mm ( Bottle height adjustable )	Applicable honey humidity	15.2%-31%
Maximum noise	< 65dB	GW	9kg
Applicable ambient humidity	≤70%RH	Warranty	2 years or 150,000 bottles (500g/bottle)

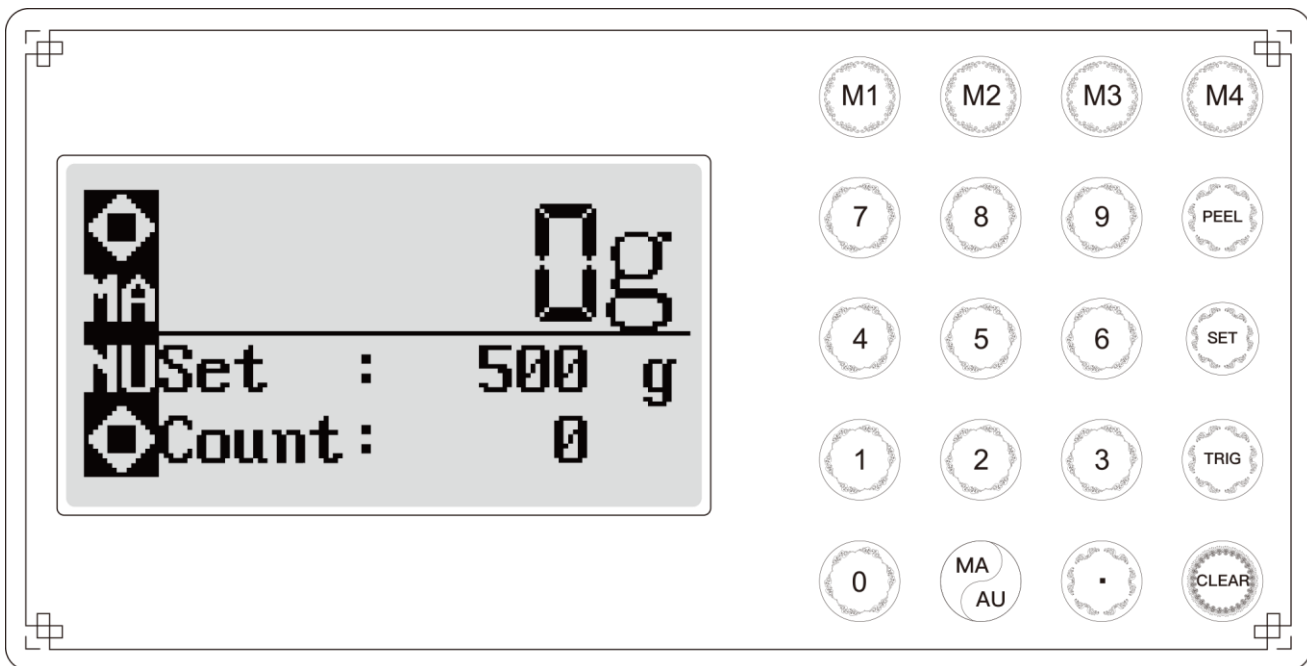
### Product feature:

Auto tare★ Autostart/stop ★Auto deceleration ★ Auto counting★Auto frequency conversion ★ Auto reset ★ Half bottle compensation★ Weight compensation ★ Delay adjustable★ Data storage★ Power off memory ★ Cumulative total ★ Low noise operation ★ Easy to use ★ Portable and efficient ★


### Remark:

1. Example: 6-X honey filling machine, suitable for honey Baume < 44°(Humidity > 15.2% ) and an ambient temperature > 15 °.
- 2.The power of the machine is directly proportional to the viscosity of the honey. 250W corresponds to 44° Baume honey(Humidity 15.2%) ripe honey.
- 3.The speed depends on the viscosity of honey and the ambient temperature. Thin honey has a fast speed and thick honey has a slow speed.
- 4.The ideal filling temperature of the machine is ≤ 70°C.

## Control Panel and Function Introduction



1. "Start" / "Emergency stop" button.

**Stainless steel button:** The stainless steel button "  " on the right side of the front of the machine body is both a "start" button and an "emergency stop" button.

★Note: In "manual mode", it is the start function button, and when the machine has abnormal conditions, it can be the emergency stop function button

2. M1 M2 M3 M4 :

### (1)Button Function

When entering the " Function set " and "Program Editing" interfaces, "M1" is the upward movement button; "M2" is the downward movement button."M3" is the numerical value increase key; "M4" is the numerical value decrease key.

< M1 M2 > ↑↓ , < M3 M4 > +-

### (2)Numeric shortcut buttons:

①M1 (Filling weight value 125g; trigger weight value 15g; speed 100%)

②M2 Filling weight value 250g; trigger weight value 15g; speed 100%)

③M3 (Filling weight value 500g; trigger weight value 15g; speed 100%)

④M4 (Filling weight value 1000g; trigger weight value 15g; speed 100%)

The above values are the system default values. Press the "M1", "M2", "M3" and "M4" buttons during filling to quickly set the "filling weight value", "trigger weight value" and "speed". The shortcut button values can be freely set according to needs.

Setting method: Take "M1" as an example. Press and hold the "M1" key for 3 seconds to enter the "Program Editing" interface.

Press the "M1" and "M2" keys to select weightvalue, "Trigger" weight value and "Speed" up and down. Function; press "M3" or "M4" to add or subtract the value of the function. Press and hold for 3 seconds to quickly add or subtract; after setting the above values, press the "Clean" button to confirm and exit.

The setting methods for "M2", "M3" and "M4" are the same.

3. Tare: Press "Tare", the "real-time" weight reading of the filling machine will be zero.

4. Set:

(1) Filling weight setting

After pressing the "Set" button, the numbers in the weight column on the display screen will flash. After inputting the number to be set, press the "Set" button and the cursor will stop flashing. At this time, the filling weight setting is completed. The number on the filling column shows the set weight.

**(2) Function set**

Press and hold the "Setting" button for 3 seconds to enter the "Function Set" interface, which has a variety of parameter settings or displays: "Language", "Max fill WT", "Slow down gra", "Minimum speed", "Current speed", "Early stop weight", "Reversal Time". Press the "M1" and "M2" keys to control the up and down movement, and press the "M3" and "M4" keys to set the numerical addition and subtraction. Press for 3 seconds to quickly add or subtract; after setting, press the "Clean" button to confirm and exit.

Noted: Since the viscosity of honey is different, the system will not be able to accurately flow out the honey with the set weight value. It is recommended to perform "calibration" work when filling the first few bottles. When setting the weight, first set the expected weight value a little small. For example: it is expected to set 1000 grams, you can set 950 grams first, start the equipment, after the filling is completed, get another electronic scale to weigh the error, and then press the "Set" button to compensate the error value, which will make the subsequent weight of each bottle more accurate. "Manual mode" and "automatic mode" operate the same as above! (See video tutorial on page 11 for details).

**5. Trigger:**

Function introduction: The "trigger" button is only used in the automatic mode filling of the equipment. The "trigger value" refers to the weighing system senses whether the weight value of the packaging bottle is placed on the weighing pan. The device can only start after sensing the weight of the packaging bottle.

Setting method: Press the "Trigger" button to enter the setting interface, the numbers in the "Trigger" column on the display screen flash, and you will need to press the numeric buttons to quickly input the trigger weight value (the trigger weight value is smaller than the weight of the empty bottle, but the range can not too large. It is recommended to set a smaller setting of 5-15 grams. For example, the weight of an empty bottle to be filled is 30 grams. The trigger weight value can be set to 15-25 grams, then press the "Trigger" button to confirm and exit the setting interface. At this time, the trigger value setting is completed.

★Note: Due to the different sizes of honey bottles, if the trigger value is not set perfectly, the device will not start working!

Setting range Example: The weight of an empty bottle is 20 grams, the trigger value is set to 15 grams, the weight of an empty bottle is 50 grams, the trigger value is set to 40 grams, the weight of an empty bottle is 240 grams, the trigger value is set to 225 grams, and so on. ((See video tutorial on page 11 for details).

**6. Cleaning:**

(1) After pressing the "Clean" button, the equipment gear will reverse and pump the liquid in the pipe back into the raw material barrel. Press the "Start" button to stop.

(2) In various "setting interfaces", the "Clean" button is mostly used as the "Return" function.

★Note: After the liquid is pumped back, to avoid waste, please wait for a period of time to allow the remaining liquid in the pipe wall to flow back to the raw material naturally in the barrel. (See video tutorial on page 11 for details)

**7. Auto mode/Manual mode:**

(1) Press the Tai Chi pattern "MA/AU" button to switch between Manual mode and Automatic mode. After switching, the left side of white box will show "MANU" or "AUTO".

## (2 ) Manual mode:

①Function introduction: Manual mode filling, after placing the packaging bottle on the weighing pan, you need to manually press the "Tare" button to remove the weight of the bottle, and manually press the "Start button" to start filling.

②No need for the "Tare" button: If you find it troublesome to press the "Tare" button every time, you can add the packaging bottle when setting the filling weight value. For example: the net liquid weight to be filled is 500 grams, the weight of the packaging bottle is 20 grams, and the filling weight value can be set to 520 grams.

③This mode is also suitable for "compensated filling". When there is a certain amount of liquid in the bottle, the bottle is filled to a set weight value. Example: There is already half a bottle of liquid of unknown or known weight in the bottle. The net weight of the liquid in the bottle needs to be filled to 1000 grams. The weight of the bottle is known to be 30 grams. At this time, press the "Set" button to set the Filling weight value is 1030g(Net filling liquid weight plus bottle weight). Place half a bottle of liquid on the tray and press the start button (note: just press the start button at this time, do not press the tare button). At this time, the machine will stop filling 1030 grams and remove the bottle. The weight is 30 grams, and the net liquid weight is 1000 grams. (For manual mode operation demonstration, See video tutorial on page 11 for details)

## (3) Auto mode

①Function introduction: For automatic mode filling, you only need to place the packaging bottle on the weighing pan, and the system will automatically tare the weight of the bottle and automatically start filling. (\*Note: The trigger value needs to be set, refer to "5. Trigger" setting on page 7)

②Steps: After setting the filling weight value, place the bottle on the weighing pan, the machine will sound a "beep" warning, the system will automatically tare the bottle, and the weight value on the display will be cleared; the machine will automatically start and fill. When the set weight value is reached, the machine will sound a "beep" warning and the filling is completed. At this time, the weight value on the display screen is the net weight of the liquid; after taking off the filled bottle, the machine will emit a "beep" sound" sounds a warning, and the "real-time" weight value on the display is cleared. Then put it in an empty bottle, repeat the above steps. (For details on the automatic mode operation demonstration, please see the video tutorial on page 11)

★Note: After taking down the filled bottle, the machine will sound a "beep" alarm before putting down another empty bottle, otherwise the machine will not start.

## 8.Total count query

Press the two numeric buttons "4" and "5" at the same time to enter the total count query interface. This function is mainly used to query the cumulative total usage of filling. Press the "Clean" button to exit.

## 9.Restore factory settings

In the shutdown state, first press and hold the "Set" button, then turn on the "Power Switch" until the "Restore Factory Settings" interface appears, then release the "Set" button, and press the "Start" button to confirm

## 10. Weight calibration

(1)Application scenario: When restoring factory settings or weighing inaccuracies occur, "Weight cali" needs to be performed;

(2)Calibration method

①In the shutdown state, first press and hold the "Start" button, then turn on the "Power Switch" until "Diagnosis" appears. interface and then release the "Start" button.

② Select "Weight Cali" and press "Start" to enter the weight calibration interface;

③Prepare two or three weights of different weights, 200g, 500g, 1000g. If there are no weights, you can choose two or three objects of different weights instead and determine their exact weight values.

④Place weights of different weights in the center of the weighing pan and adjust by pressing the "M1" or "M2" keys. Example:

Place a 200g weight in the center of the weighing pan; if the weight displayed in the "Weight" column is 208g, which is more than the actual weight, you should short press or long press the "M1" key to adjust the displayed weight value to 200g; such as "Weight" "The weight displayed in the column is 197g, which is less than the actual weight. At this time, you should short-press

or long-press the "M2" key to adjust the displayed weight value to 200g. By analogy, add weights or objects of other weights for two or three adjustments.

⑤After debugging is completed, press "Clean" button twice to return to the main interface.

## Filling Methods and Adjustments

### 1. Filling preparation

(1) Install the anti-suction bucket bottom device on the front end of the liquid inlet pipe according to the video and lock it tight, and then put it into the liquid container.

(2) Unscrew the plug screw of the injection port above the pump chamber, use a syringe to inject 20-40 ml of liquid into the pump cavity, tighten the plug screw,

(3) Press the start button to start the device to introduce liquid. After the liquid reaches the top of the liquid outlet pipe, press the start button again to stop the liquid introduction work.

Note: This equipment is specially designed for filling thick liquids. The pump chamber is large and the speed is slow. It requires adding liquid to increase the pressure.

### 2. Manual mode filling

(1) Set the filling weight: Press the "Set" button to enter the setting interface. The numbers in the weight column on the display screen flash. Press the numeric buttons to quickly input the filling weight value that needs to be set (for example: to set 500g, press the numeric keys "5", "0" and "0" can be entered) and then press the "Set" button to confirm and exit the setting interface. At this time, the filling weight value is set and the filling column displays the value is the setting weight.

(2) Adjust the height of the liquid outlet slider. It is recommended that the liquid outlet be 1-2cm away from the mouth of the packaging bottle.

(3) Tare: Put the packaging bottle on the weighing pan, press the "Tare" button to remove the weight of the bottle. At this time, the weight shown on the filling machine panel is zero. If you find it troublesome to press the "Tare" button every time, you can add the packaging bottle when setting the filling weight value. For example: the net liquid weight to be filled is 500 grams, the weight of the packaging bottle is 20 grams, and the filling weight value can be set to 520 grams.

(4) Filling: Press the "Start" button to start filling. After filling to the set weight, the equipment will automatically stop. At this time, remove the filled bottle, replace it with a new bottle, and follow the above steps in a cycle;

### 3. Auto mode filling

(1) Set the filling weight: Press the "Set" key to enter the setting interface. The numbers in the weight column on the display screen will flash. Press the numeric buttons to quickly input the filling weight value that needs to be set (for example: to set 500g, press the numeric buttons "5" "0" "0" quick input), then press the "Set" button to confirm and exit the setting interface. At this time, the filling weight value is set, and the value displayed in the filling column is the set weight.

(2) Set the trigger value: Press the "Trigger" key to enter the setting interface. The numbers in the "Trigger" column on the display screen will flash. Press the numeric keys to quickly input the trigger weight value that needs to be set (it is recommended that the trigger weight value be smaller than the weight of the empty bottle) 5-15g setting (for example, if the weight of the empty bottle to be filled is 30g, the trigger weight value can be set to 15-25g), then press the "Trigger" button to confirm and

exit the setting interface. At this time, the trigger value setting is completed.

(3) Adjust the height of the liquid outlet slider. It is recommended that the liquid outlet be 1-2cm away from the mouth of the packaging bottle.

(4) Filling: Put the packaging bottle on the scale, and when the system senses the weight, it will automatically "tare" to remove the weight of the bottle, and automatically "start" filling. After filling to the set weight, the equipment will automatically stop. At

this time take off the filled bottles and replace them with new ones, follow the above steps in a cycle;

★Note: For specific operations, please refer to the video tutorial on page 11; In automatic mode, the "trigger value" needs to be set, and for the setting, please refer to page 7 "5" Trigger"; when the bottle is not placed in the automatic mode, do not touch the scale pan to avoid accidentally starting, causing liquid to spill;

#### 4. Frequently asked questions and solutions

(1) Liquid drip issue

Press and hold the setting button for 2 seconds to enter the function setting interface, use M1 to find the ninth reversal time, and use M3 to adjust the reversal time to the range of 0.3-0.5 seconds. After making changes, press the Clean button to return to the main interface. If there is still dripping, you can continue to repeat the above steps and fine-tune the "reversal time" value upward for testing.

(2) Filling accuracy problem

Example: Set the filling weight to 500g, and the actual liquid output weight is 495g;

Solution:

① System adjustment: Press and hold the "Settings" key for 3 seconds to enter the "Function Settings" interface, press the "M1" and "M2" keys to control the up and down movement, find the item (7) "Early stop weight". Based on the comparison between the actual liquid output and the set filling weight, "reduce the number of grams if it is less, and add the number of grams if it is more." For example, the actual liquid output of 495 grams is 5 grams less than the set filling weight of 500 grams. At this time, press the "M4" key to reduce the value of "Early stop weight" by 5 grams; similarly, if the actual liquid output is less than the set filling weight of 500 grams, The set filling weight is 5 grams more. At this time, press the "M3" key to increase the value of "Early stop weight" by 5 grams set up. After completion, press the "Clean" button to confirm and exit. Then the filling will be accurate.

② Direct modification: If you feel that method ① is more complicated, you can directly modify the filling weight value. In the example, the actual liquid output of 495 grams is 5 grams less than the set filling weight of 500 grams. At this time, you can directly increase the filling weight value by 5 grams and set it to 505 grams. At this time, the actual liquid output will be 500 grams.

Note: The accuracy of this device is  $\pm 1$  gram, and it is normal within the range of  $\pm 1$  gram!

#### Precautions

1. When opening the package and taking out the machine, it is forbidden to pull the transparent acrylic tray. The tray is connected to a weight sensor to avoid weight failure.

2. When choosing 240V household electricity, be sure to work under stable voltage conditions. When choosing 24V electricity, first check the battery voltage 24v (current 10.8A or above).

3. Before preparing for filling work, be sure to check that the four lower corners of the machine must be on the same working surface (lay flat and stable) before the machine can operate normally.

4. When filling, check whether there is any debris in the liquid and place an anti-suction bottom ring on the bucket to prevent the

bottom of the liquid inlet pipe from being sucked into the barrel wall or debris from causing damage to the machine.

5.If there is liquid dripping on the transparent acrylic "tray" during work and needs to be handled, it must be handled in the shutdown state or manual mode.

5. The equipment has been precisely debugged and installed before leaving the factory. If there is a problem, do not remove any screws or parts on it.

7.This equipment is specially designed for filling thick liquids. The pump chamber is large, the speed is slow, and it cannot pump water directly.

### Packing List

SN	Qty(pcs)	Spec
Main body	1	4-XP
Liquid outlet slider	1	4-XP slider
Power adapter	1	12V 10A
Power cord	1	
White tray	1	Straight side tray
Stainless steel pipe clamp(big)	1	21-38mm
Stainless steel pipe clamp(small)	2	18-32mm
Syringe	1	60ML
Silicone duckbill valve	2	16mm
Pole screw	1	6mm
Acrylic weighing pan	1	180x140x8mm
Tray components	1	gasket x1, Allen wrench x1, Screws x2
Liquid inlet pipe (thick)	1	Outer diameter 32mm, inner diameter 25mm, length 1.2meters
Discharge pipe (thin)	1	Outer diameter 27mm, inner diameter 20mm, length 0.45m
Pole	1	Aluminum alloy (black) 30*15*400