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› 2 In 1 Mini Liquid Filling Machine Line User Manual

## **Moonshan MS-FM-7**

# **Moonshan 2 In 1 Mini Liquid Filling Machine Line User Manual**

Model: MS-FM-7

## **1. PRODUCT OVERVIEW**

The Moonshan 2 In 1 Mini Liquid Filling Machine Line is designed for efficient and precise filling of thin to low viscosity liquids. It features a hygienic peristaltic pump and can operate independently or integrate with a mini conveyor belt for automated production. This system is ideal for small business production, offering both weight-based and time-based filling modes.



Image: The complete Moonshan 2 In 1 Mini Liquid Filling Machine Line, showing the main unit with a weighing platform, a filling nozzle, and a green conveyor belt with bottles.

# 2 IN 1 FUNCTION

The weighing filling machine can not only be used independently, but also in combination with a conveyor belt

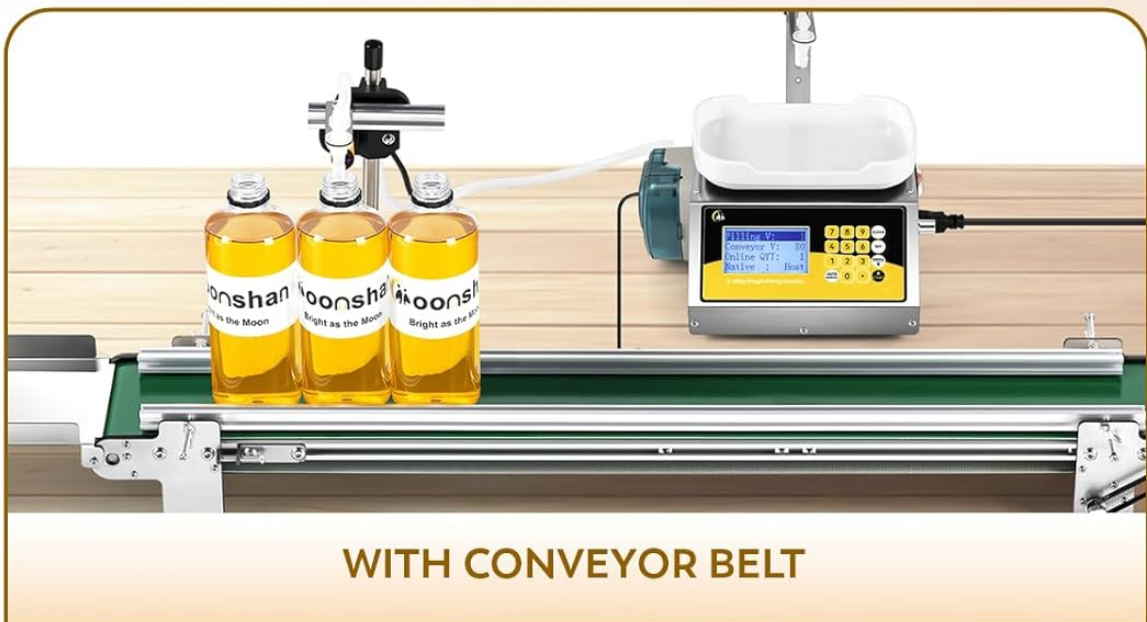


Image: A visual representation highlighting the dual functionality of the machine: operating as a single weight filling machine or integrated with the conveyor belt.

## 2. SAFETY PRECAUTIONS

- Ensure the machine is placed on a stable, level surface.
- Do not operate the machine with wet hands or in a wet environment.
- Always disconnect power before performing any maintenance or cleaning.
- Use only liquids suitable for the peristaltic pump (thin to low viscosity, non-corrosive, particle-free). Avoid

viscous liquids like ketchup or gel.

- Keep hands and loose clothing away from moving parts, especially the conveyor belt.
- Ensure proper ventilation when operating.

### 3. SETUP GUIDE

Follow these steps to assemble and prepare your liquid filling machine for operation. For a visual guide, please refer to the installation video below.

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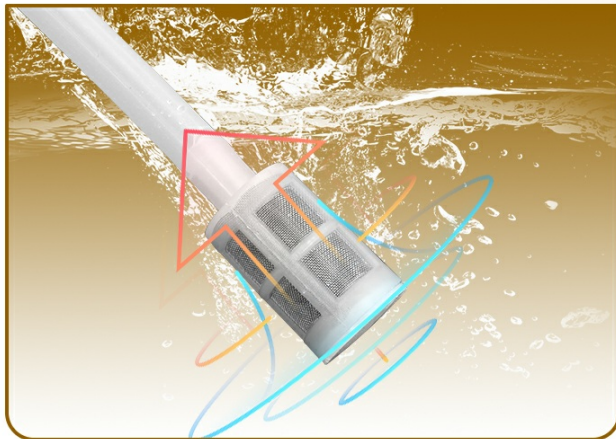
Video: Moonshan Mini Liquid Filling Machine Line Installation Guide. This video provides a step-by-step visual demonstration of the assembly process for the filling machine and conveyor belt.

#### 3.1. Install the Bracket

Attach the main support bracket to the conveyor belt. Insert the bracket into the black clip and tighten the two screws with a screwdriver to secure it to the slide. The position of the bracket can be adjusted as needed.

#### 3.2. Install the Filling Nozzle

Loosen the screw on the filling nozzle bracket with a screwdriver. Slide the filling nozzle into the groove from the side. Fix the filling nozzle with a cross screwdriver.



#### MESH FILTER

It can effectively filter impurities to prevent them from entering the tube and ensure the quality of the liquid

Image: A close-up view of the fixed filling nozzle, highlighting its stable attachment for a smoother filling process.

#### 3.3. Install the Sensor

Remove the outer black ring from the sensor. Pass the sensor through the hole in the bracket. Rotate the removed black ring back onto the sensor to secure it. This infrared probe helps in automatic bottle detection.

# HIGH PRECISION INTELLIGENT SENSOR

## INFRARED PROBE



### FUNCTION:

Motorized bottle blocker with fiber optic sensor identifier automatically releases and stop bottles

Image: The high-precision intelligent infrared probe positioned above the conveyor belt, designed for automatic bottle detection and stopping.

### 3.4. Install the Guardrails

Place the guardrails on the conveyor belt. Slide the sliding nuts into the guardrail. Insert the long screw into the hole and align the sliding nut with the screw. Rotate the nut and sheep horn nut to fix the guardrail. There are four sliding nuts that need to be fixed at the four corners. Adjust the distance between the guardrails according to the size of your bottles (diameter 20-90mm, opening inner diameter 10-80mm, height 40-250mm).

# 3.28 FT

## ADJUSTABLE SPEED CONVEYOR

The length of the conveyor is up to 3.28ft and the width is up to 5 inches



WATER-PROOF



SPEED ADJUSTABLE



ALUMINUM ALLOY  
BOTTLE GUARDRAIL

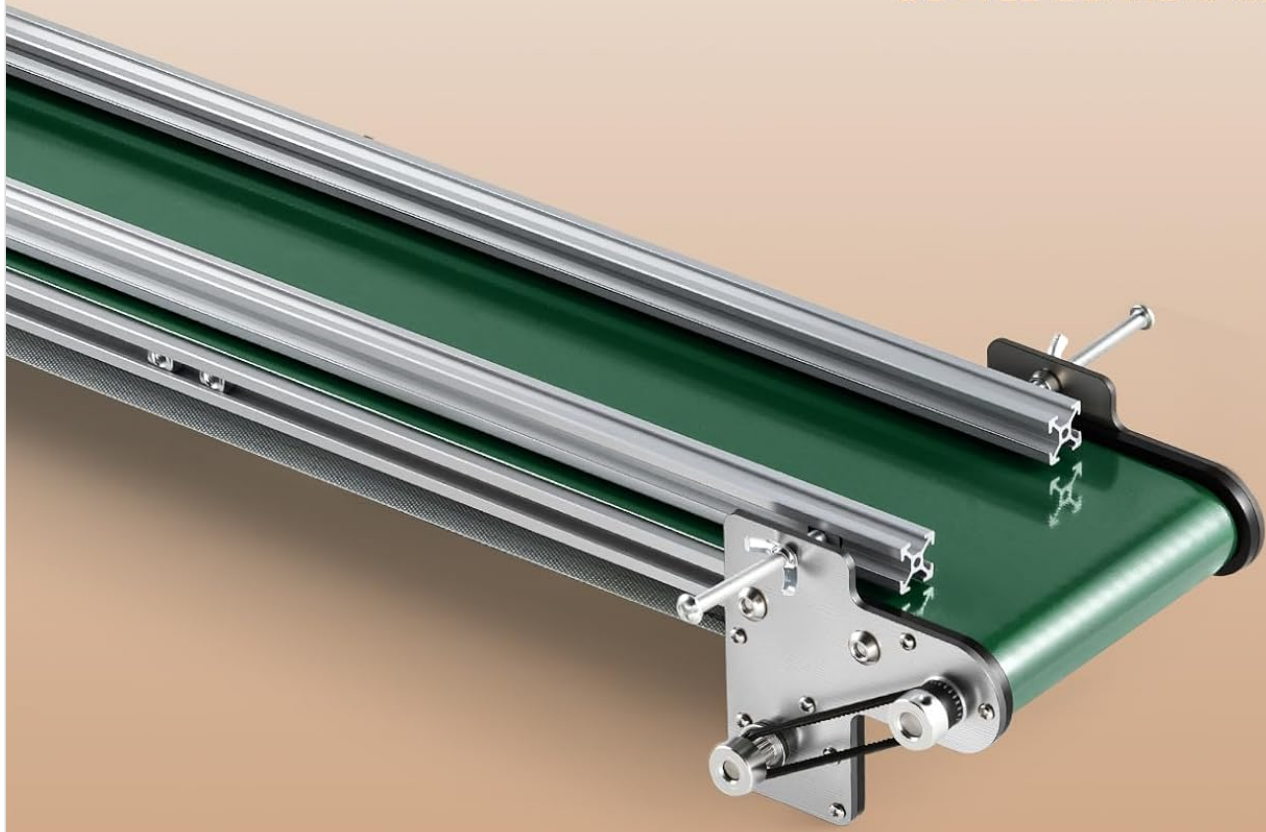


Image: A close-up of the 3.28 FT adjustable speed conveyor belt, showing the aluminum alloy guardrails that help guide bottles.

### 3.5. Install the Pallet

Use a screwdriver to remove the four screws from the pallet. Fix the supporting feet on the pallet using the same method. Then, use a screwdriver to remove the screws from the two corners of the conveyor belt and fix the pallet on the conveyor belt.



## FLOW KNOB

Simply rotate the button to adjust the filling speed, saving adjustment time

Image: The stainless steel bottle platform, which extends the length of the conveyor and provides a smooth connection for bottles.

### 3.6. Connect the Wires

Connect the power cable and the sensor cable to their respective ports on the main unit. Ensure all connections are secure.

### 3.7. Install the Silicone Tube

Connect one end of the food-grade silicone tube to the filling nozzle and the other end to the peristaltic pump inlet. Ensure the tube is securely fitted to prevent leaks. An additional spare tube is provided.



Image: A coil of food-grade silicone tubing, highlighting its material properties as odorless and high-temperature resistant.

### 3.8. Install the Mesh Filter

Attach the mesh filter to the end of the silicone tube that will be submerged in the liquid source. This filter prevents impurities from entering the tube and ensures liquid quality.

# SCOPE OF APPLICATION

NON-VISIOUS

NON-CORROSIVE

PARTICLE-FREE



Image: A close-up of the mesh filter, illustrating its function in filtering impurities from the liquid before it enters the tube.

## 4. OPERATING INSTRUCTIONS

### 4.1. Calibrate the Sensor Position

Position the nozzle approximately 0.4-0.8 inches (1-2cm) above the bottle mouth. Ensure the sensor is facing the bottle mouth directly for accurate detection.

### 4.2. Test the Conveyor Speed

Turn on the power and adjust the filling speed to "1" (Note: At this speed, the liquid will not flow out). Adjust the conveyor belt speed to the speed you need using the control panel. After testing, adjust the filling speed and filling time to prepare for the next step of air discharge.

### 4.3. Empty the Air from the Pipe

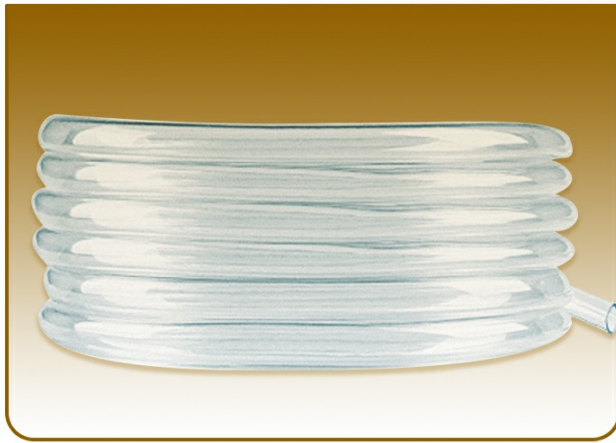
Fill the pipe with your own liquid and exhaust the air to ensure consistent filling.

### 4.4. Estimated Filling Time

Set the desired filling time on the control panel. The machine will fill for the specified duration.

### 4.5. Start Filling

Once all settings are calibrated and the pipe is primed, initiate the filling process. The machine will automatically detect bottles, fill them, and convey them along the belt.



## FOOD GRADE SILICONE TUBE

Food grade material, odorless and high-temperature resistant. One tube is included as standard in the package, and an additional tube is provided as a spare

Image: A close-up of the flow knob on the control panel, used for easily adjusting the filling speed to suit different bottle requirements.

## 5. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your filling machine.

- **Cleaning the Peristaltic Pump Tubing:** The liquid only contacts the silicone tube, minimizing contamination. The tubing can be easily installed or disassembled for cleaning. Regularly clean or replace the silicone tubing to maintain hygiene and prevent buildup, especially when switching between different liquids.
- **General Cleaning:** Wipe down the machine's exterior with a damp cloth after each use. Avoid using abrasive cleaners or solvents that could damage the surfaces.
- **Conveyor Belt Inspection:** Periodically check the conveyor belt for any debris or wear. Ensure the belt runs smoothly and is free from obstructions.
- **Sensor Cleaning:** Gently clean the infrared sensor with a soft, dry cloth to ensure accurate bottle detection.

## 6. TROUBLESHOOTING

This section addresses common issues you might encounter.

Problem	Possible Cause	Solution
Inaccurate Filling Volume	Incorrect filling time setting; air in the tubing; liquid viscosity too high.	Adjust filling time; prime the pump to remove air; ensure liquid is thin to low viscosity.
Bottles falling off conveyor / Instability	Guardrails not properly adjusted for bottle size; conveyor speed too high for bottle stability.	Adjust guardrails to snugly fit bottles (diameter 20-90mm); reduce conveyor speed.
Liquid not flowing	Pump speed set to "1"; tubing kinked or blocked; liquid too viscous.	Increase pump speed; check tubing for obstructions; ensure liquid is suitable.
Sensor not detecting bottles	Sensor misaligned or dirty.	Calibrate sensor position (refer to Section 4.1); clean sensor lens.

## 7. SPECIFICATIONS

- **Model Number:** MS-FM-7
- **Package Dimensions:** 35.5 x 17 x 10.6 inches
- **Item Weight:** 21.7 pounds
- **Conveyor Length:** 3.28 FT (approximately 1 meter)
- **Applicable Liquid Viscosity:** Thin to Low Viscosity (e.g., wine, alcohol, detergent, essential oil, essence, nail polish, MCT oil)
- **Incompatible Liquids:** Viscous liquids (e.g., glycerol, ketchup, thick oil, hot sauce, gel)
- **Applicable Bottle Diameter:** 20-90mm
- **Applicable Bottle Opening Inner Diameter:** 10-80mm
- **Applicable Bottle Height:** 40-250mm
- **Pump Type:** Peristaltic Pump

# PRODUCT APPLICATION

NON-VISIOUS

NON-CORROSIVE

PARTICLE-FREE

## BEVERAGE



Wine

Whisky

Milk

## CONDIMENT



Vinegar

Soy sauce

## COSMETICS



Perfume

Face toner

## THIN OIL



MCT oil

Essential oil



Glycerol



Ketchup



Thick Oil



Hot Sauce



Gel

Image: A chart illustrating the types of liquids suitable for the machine (non-viscous, non-corrosive, particle-free) and those that are not recommended.

## 8. WARRANTY AND SUPPORT

For warranty information, technical support, or any inquiries regarding your Moonshan 2 In 1 Mini Liquid Filling Machine Line, please contact the manufacturer directly through their official channels or the retailer from whom you purchased the product. Keep your purchase receipt and model number (MS-FM-7) handy for faster service. You can visit the Moonshan Store for more information and contact options.

