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Moonshan MS-HFM-5K

Moonshan MS-HFM-5K Viscous Liquid Filling Machine User Manual

Model: MS-HFM-5K

1. INTRODUCTION

Thank you for choosing the Moonshan MS-HFM-5K Viscous Liquid Filling Machine. This machine is designed for precise and efficient filling of various viscous liquids such as honey, oil, gel, laundry detergent, and sauces. It features a robust stainless steel gear pump and offers both weight-based and time-based filling modes to ensure high accuracy. Please read this manual thoroughly before operation to ensure safe and correct usage, optimal performance, and longevity of your machine.

2. SAFETY INFORMATION

Always adhere to the following safety precautions to prevent injury or damage to the machine:

- Ensure the machine is placed on a stable, level surface before operation.
- Connect the machine to a grounded power outlet with the correct voltage.
- Do not operate the machine with wet hands or in wet conditions.
- Keep hands and loose clothing away from moving parts during operation.
- Always disconnect power before cleaning, maintenance, or when the machine is not in use.
- This machine is designed for viscous liquids. Do not use it for thin liquids, liquids with solid particles (like seeds), or corrosive chemical solutions.
- In case of malfunction, immediately turn off the machine and disconnect power. Do not attempt unauthorized repairs.

3. PRODUCT OVERVIEW AND COMPONENTS

The Moonshan MS-HFM-5K is a compact yet powerful filling machine. Familiarize yourself with its main components:

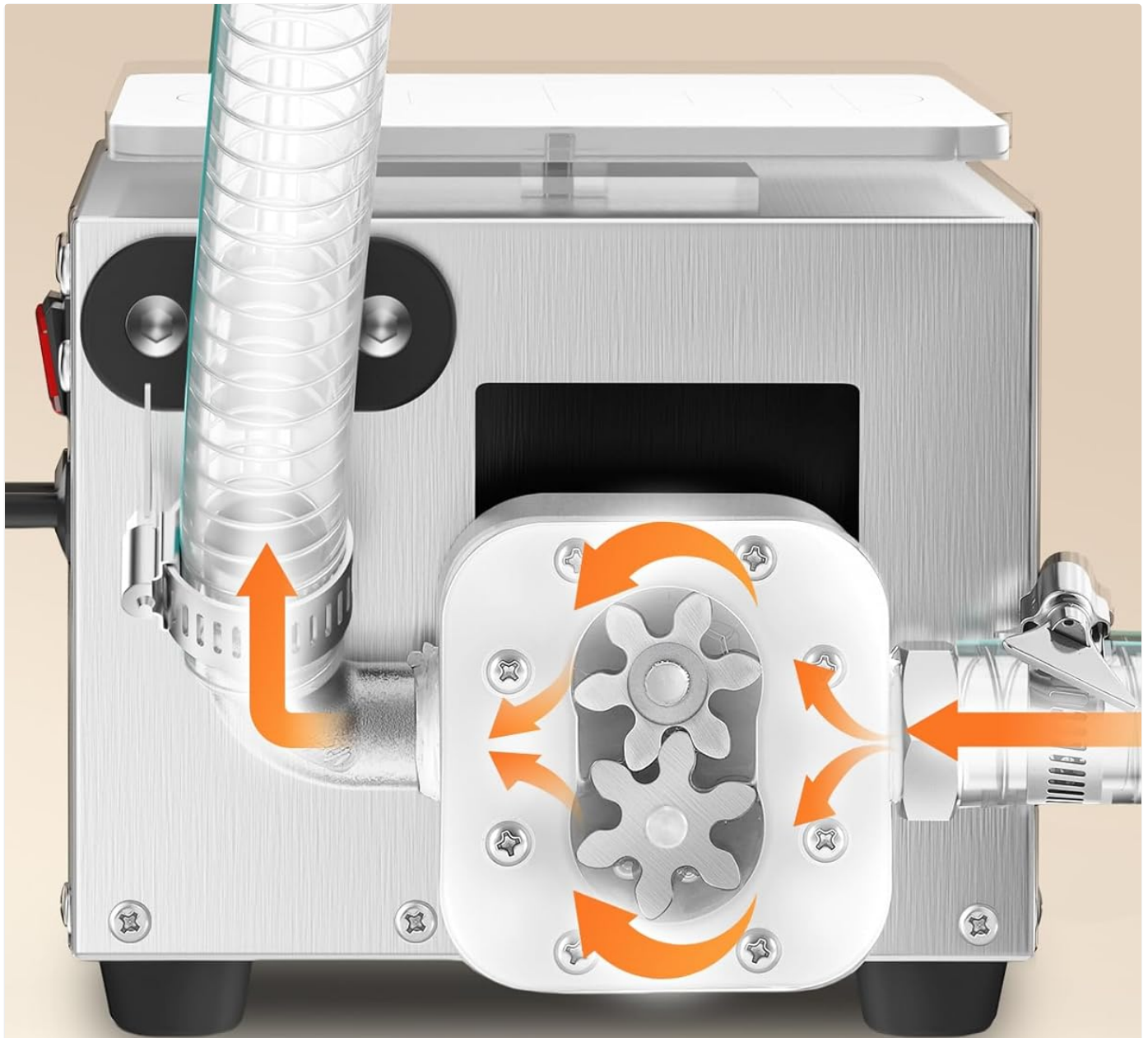


Figure 3.1: Labeled diagram of the Moonshan MS-HFM-5K filling machine, showing the control panel, weigh pan, anti-drip nozzle, inlet and outlet tubes, support rod, and power switch. Dimensions are also indicated.

Key Components:

- **Control Panel:** Digital display and buttons for setting parameters (weight, time, speed).
- **Weigh Pan:** Platform for placing containers during weight-based filling.
- **Anti-drip Nozzle:** Dispenses liquid and prevents dripping after filling.

- **Inlet Tube:** Connects to the liquid source.
- **Outlet Tube:** Connects from the pump to the nozzle.
- **Support Rod:** Adjustable rod for nozzle height.
- **Power Switch:** On/Off control for the machine.
- **Stainless Steel Gear Pump:** The core pumping mechanism, designed for viscous liquids.



STAINLESS STEEL GEAR PUMP

High-quality stainless steel gear pump can handle a wide range of viscous materials, stable operation

Figure 3.2: Illustration of the internal stainless steel gear pump, highlighting its robust design for handling viscous materials.

The machine is specifically designed for viscous liquids. Refer to the image below for suitable and unsuitable liquid types.

IDEAL FOR VISCIOUS PRODUCTS

Unsuitable for water-like fluids, certain chemicals, and
paste-like toothpaste



Honey



Oil



Ketchup



Laundry detergent



Barbecue sauce



Conditioner

Juice



Sauce with chunk



Toothpaste



Figure 3.3: Visual guide indicating ideal viscous products such as honey, oil, ketchup, laundry detergent, barbecue sauce, and conditioner. It also shows unsuitable liquids like juice, sauces with chunks, and toothpaste.

4. SETUP

Follow these steps for initial setup:

1. **Unpacking:** Carefully remove all components from the packaging. Verify that all parts listed in the packing list are present and undamaged.
2. **Placement:** Position the machine on a stable, flat, and clean surface. Ensure adequate space around the machine for operation and maintenance.
3. **Connect Tubes:** Attach the inlet tube to the liquid source (e.g., a container of honey). Connect the outlet tube from the pump to the anti-drip nozzle. Ensure all connections are secure to prevent leaks.
4. **Nozzle Height Adjustment:** Adjust the height of the anti-drip nozzle using the slide rail design on the support rod. The adjustable range is 0-13 inches. Position the nozzle appropriately for your containers to minimize splashing and ensure accurate filling.

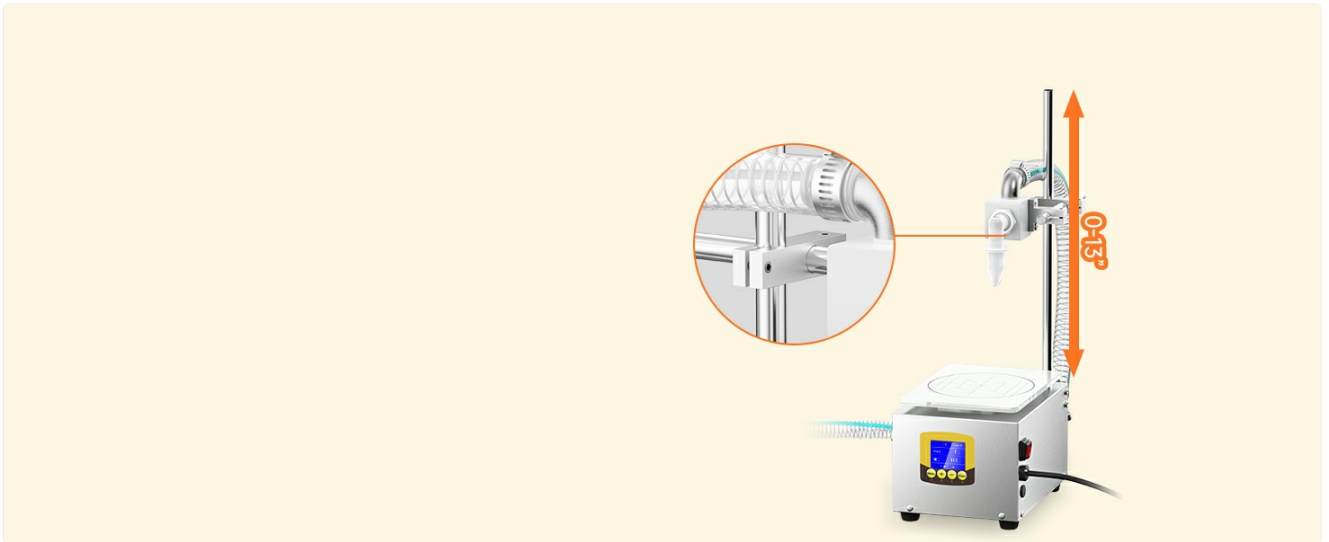


Figure 4.1: Detail of the slide rail design for adjusting the nozzle height, allowing for flexible positioning over various container sizes.

5. **Power Connection:** Plug the power cord into a suitable grounded electrical outlet.

5. OPERATING INSTRUCTIONS

The MS-HFM-5K offers two primary operating modes: Weight Filling Mode and Time Filling Mode.



Figure 5.1: Overview of the machine's dual operating modes: Weight filling for precise quantity by mass, and Time filling for consistent duration of flow.

5.1. General Operation

1. Turn on the machine using the power switch. The control panel display will illuminate.
2. Select your desired filling mode (Weight or Time) using the buttons on the control panel.
3. Place an empty container on the weigh pan (for weight mode) or under the nozzle (for time mode).

4. Adjust filling parameters as described below.
5. Press the 'Start' button to begin the filling process.

5.2. Weight Filling Mode

This mode is ideal for precise filling based on the target weight of the liquid.



Figure 5.2: The machine in Weight Filling Mode, demonstrating automatic filling upon placing a bottle on the weigh pan.

1. Select 'Weight Mode' on the control panel.
2. Place an empty container on the weigh pan. The display will show its weight.
3. Press the 'Tare' button to zero out the container's weight.
4. Use the '+' and '-' buttons to set the desired target filling weight.
5. Press 'Start'. The machine will automatically fill the container to the set weight with an accuracy of up to 1 gram.

5.3. Time Filling Mode

This mode fills containers for a set duration, suitable for consistent volume filling, especially for pouches.



Figure 5.3: The machine in Time Filling Mode, shown filling flexible pouches, which is ideal for this method.

1. Select 'Time Mode' on the control panel.
2. Use the '+' and '-' buttons to set the desired filling duration in seconds.
3. Place an empty container under the nozzle.
4. Press 'Start'. The machine will fill for the set duration. It is recommended to perform a test fill and adjust the time for desired volume.

5.4. Adjusting Filling Speed (Three-Stage Filling)

The machine features a three-stage filling speed for enhanced precision and to prevent splashing, especially with foamy or highly viscous liquids.



Figure 5.4: A graph depicting the three-stage filling speed: a high initial speed, a middle speed, and a low final speed for precision and anti-drip control.

The three stages are: Start Speed (High), Middle Speed, and End Speed (Low). You can adjust the duration and intensity of each stage via the control panel settings to optimize for different liquid viscosities and container types. This ensures a fast initial fill and a slow, precise finish to prevent overfilling and dripping.

6. MAINTENANCE

Regular cleaning and maintenance will extend the life of your filling machine.

- **Daily Cleaning:** After each use, especially when changing liquids, flush the inlet and outlet tubes and the nozzle with warm water until clean. For stubborn residues, a mild, food-grade cleaning solution can be used, followed by thorough rinsing.
- **External Cleaning:** Wipe down the exterior of the machine with a damp cloth. Do not use abrasive cleaners or immerse the main unit in water.
- **Pump Inspection:** Periodically inspect the gear pump for any signs of wear or blockage. Ensure the gears rotate freely.
- **Tube Replacement:** Replace the silicone tubes if they show signs of wear, cracking, or discoloration to maintain hygiene and performance.
- **Storage:** Store the machine in a clean, dry environment when not in use.

7. TROUBLESHOOTING

Refer to this section for common issues and their solutions.

Problem	Possible Cause	Solution
Machine does not power on	No power supply; Loose connection; Faulty power switch	Check power cord and outlet; Ensure switch is ON; Contact support if issue persists.
Liquid not pumping	Inlet tube blocked; Pump airlocked; Liquid too thick; Incorrect mode/settings	Check and clear inlet tube; Prime the pump with liquid; Ensure liquid is suitable for the machine; Verify settings.
Inaccurate filling (Weight Mode)	Weigh pan not tared; External vibrations; Air bubbles in liquid; Incorrect calibration	Tare the weigh pan before each fill; Ensure stable environment; Allow liquid to settle; Recalibrate if necessary (refer to advanced settings).
Dripping from nozzle	Nozzle not fully closed; Liquid too thin; High filling speed at end stage	Check nozzle for blockages; Ensure liquid viscosity is appropriate; Adjust end filling speed to be slower.
Machine making unusual noise	Pump obstruction; Motor issue	Turn off and inspect pump for foreign objects; Contact support.

8. SPECIFICATIONS

Technical details for the Moonshan MS-HFM-5K Viscous Liquid Filling Machine:

- **Model:** MS-HFM-5K
- **Product Dimensions:** 6 x 8 x 4 inches (Main Unit)
- **Item Weight:** 9.38 pounds
- **Filling Modes:** Weight-based, Time-based
- **Filling Accuracy:** Up to 1 gram (Weight Mode)
- **Pump Type:** Stainless Steel Gear Pump
- **Nozzle Type:** Anti-drip
- **Nozzle Height Adjustment:** 0-13 inches (Slide Rail Design)
- **Suitable Liquids:** Viscous liquids (e.g., honey, oil, gel, sauces, shampoo, laundry detergent)
- **Unsuitable Liquids:** Thin liquids, liquids with solid particles (seeds), corrosive chemicals, paste-like toothpaste.

9. WARRANTY AND SUPPORT

Moonshan provides a standard warranty for this product against defects in materials and workmanship under normal use. The specific terms and duration of your warranty may vary based on your region and purchase date. Please retain your proof of purchase for warranty claims.

For technical support, troubleshooting assistance, or warranty service, please contact Moonshan customer service through the retailer where you purchased the product or visit the official Moonshan website for contact information. When contacting support, please have your model number (MS-HFM-5K) and purchase details ready.

For more information, you can visit the Moonshan Store on Amazon.

