USER MANUAL

FILL-STOP

h2o innovation® LEADER™

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INTRODUCTION

The Fill-stop is designed to allow for the easy and efficient filling of maple syrup containers. It uses a simple feedback mechanism to stop the flow of syrup to the container at a predetermined level. Once the Fill-stop is set up, an operator need only push the start button and change out the container when it is filled. No settings need to be changed as long as the same type of container is used.

EQUIPMENT DESCRIPTION

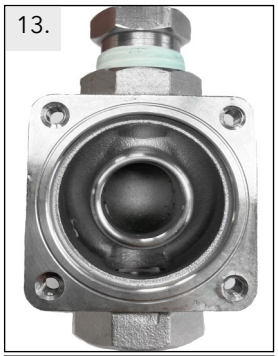
SETUP NOTES

In this document, "canner" refers to the container serving as the source of the maple syrup to be processed through the Fill-stop.

The following setup is one example of adding a Fill-stop to a canner. The actual setup will need to be tailored to your operation.

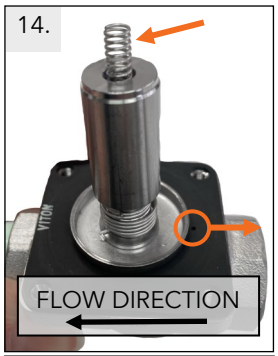
- The canner needs to be solidly placed and balanced. When the fittings are installed they will make the front of the canner heavy.
- The canner needs to be cleaned thoroughly; material entering the Fill-stop can prevent it from functioning correctly.
- We recommend the installation of a ½" stainless steel ball valve (not included) between the tank and the Fill-stop. This is done to provide:
  - a method of isolating the tank from the Fill-stop valve when maintenance on the Fill-stop valve is required.
  - the ability to regulate the flow of liquid to/from the Fill-stop if needed.

13.



Soak all the pieces in hot water until they are clean and no syrup remains inside.

14.



Position this assembly onto the nozzle unit as pictured. Ensure the small hole in the rubber is positioned towards the canner. Replace the spring as shown.

15.

Reassemble the housing onto the nozzle unit.

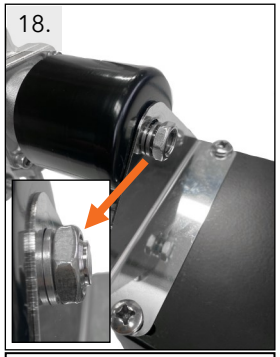
16.

Replace all screws and evenly tighten with hex wrench.

17.

Reinstall the washer that was removed in step 9.

18.



Reinsert nozzle assembly into housing and reinstall lock washer and nut and tighten with wrench.

CLEANING & MAINTENANCE

If the valve begins to drip or does not function properly, flush with hot water to dissolve sugar build up. This step is also recommended at the end of each use for regular maintenance.

1. Drain and clean the canner.
2. Fill the canner with hot water.
3. Place a bucket under the nozzle of the Fill-stop. Open the valve to the Fill-stop if applicable.
4. Activate the Fill-stop and let the hot water flow through. Allow water to sit in the Fill-stop to soak for 5 minutes and repeat as necessary.
5. Close the ball valve between the tank and the Fill-stop if applicable.
6. Allow the Fill-stop to cool. See step 7 to disassemble nozzle and soak internal pieces in hot water.

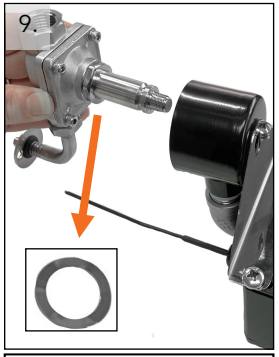
7.

Using a wrench, remove top nut.

8.

Remove the lock washer and hex nut and set aside.

9.



Carefully pull the nozzle assembly straight out and remove washer.

10.

Using a hex wrench, remove the four screws.

11.

Carefully remove the top half of the housing (note position of the tiny hole facing the threaded inlet).

12.

Remove the spring and the assembly from bottom housing and soak in hot water. Focus on removing any build up from the tiny hole mentioned in step 11.

- When positioning the ball valve, ensure it has a full range of motion.
  - All fittings should be sealed with Teflon tape.
    - When using Teflon tape, make sure it does not overlap into the liquid path.
  - Ensure all fittings are tight and properly positioned so they do not leak.
  - Install Fill-stop vertically as shown.

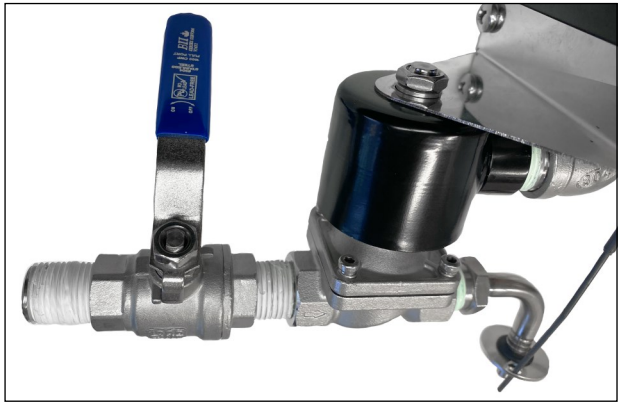
INSTALLATION

Add Teflon tape to the included 1/2" close nipple and thread into the Fill-stop securely.

Thread the entire unit onto your canner. This setup does not include the ball valve (if you wish to use a ball valve, see next setup instructions).

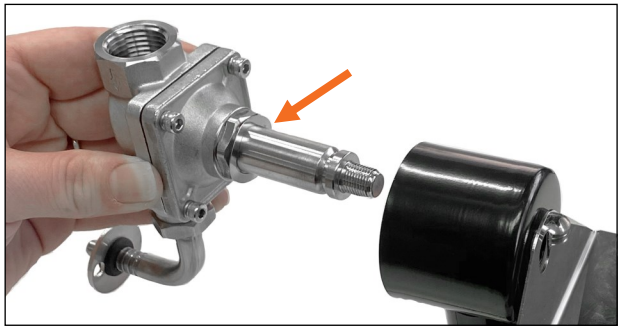
INSTALLATION W/ BALL VALVE (RECOMMENDED)

We recommend adding a second 1/2" close nipple and a 1/2" ball valve (both sold separately). This is to ease maintenance and can be used to help regulate the flow of syrup if desired.



INSTALLATION WITH DISASSEMBLY IF NECESSARY

If the Fill-stop is being installed in a tight area, disassembly may be necessary to make it easier to install. Take extra care to tighten everything accordingly.

Remove the top nut with a wrench.	Take off nut, remove washer, and set both aside.
	
Gently pull the nozzle assembly straight out of the main housing unit. Take care to keep the washer in place on the nozzle assembly. Screw the nozzle onto your canner and then reassemble.	

OPERATION

To use the Fill-stop, you will need to set the probe for the level of syrup to be put into a specific style container to be filled. It is recommended that you practice, using water, setting the levels and valve openings on all the different styles of containers you will be using.

CAUTION: When operating the Fill-stop, all metal parts will become hot.

Pressing the start button will allow syrup to flow and fill the container. Syrup will continue to flow until the liquid level reaches the probe and automatic shut off will occur. The flow of syrup can be stopped at any time by pressing the stop button.

STEPS TO OPERATE

1. Fill the canner with the syrup to be put into containers. Heat the syrup as necessary. Maple syrup should be heated to 180 °F to 190 °F.
2. Turn power on to the Fill-stop. Open the stainless-steel valve all the way, if applicable.
3. First Pour: To avoid air bubbles when filling your first container, perform a first pour into a separate jar.
    - Place jar under spout.
    - Push the Start button to allow maple syrup to flow.
    - Push the Stop button to stop when the flow is smooth.
    - You can return the syrup to the canner.
4. Set the Probe: The Fill-stop probe needs to be adjusted for each type and size of container to be filled.
5. Select a container and place it under the nozzle.
6. Insert the probe wire into the container. The probe wire is adjustable to suit your container needs. Unscrew the probe holder to gently pull the probe to the desired length and retighten.
    - Make sure the probe is inside the container to avoid overfilling.
8. Push the Start button on the control box and allow the container to fill until it stops. Adjust the probe wire up or down until the proper level of liquid is reached.

9. When a container is filled, pull it out from under the probe wire. You can place another container of the same size and style into position to fill. Make sure the probe wire is set straight into each container to be filled.