XpressFill XF4500C

Congratulations on the purchase of your XpressFill Can filling machine.

Thank you for choosing our handcrafted can filler as the technology to can your passion. We look forward to assisting you in experiencing the best performance from your filler.

This manual is written with your safety and convenience in mind. We highly recommend reading the manual before using your filler for the first time.

If you have any questions or comments, please do not hesitate to contact us.

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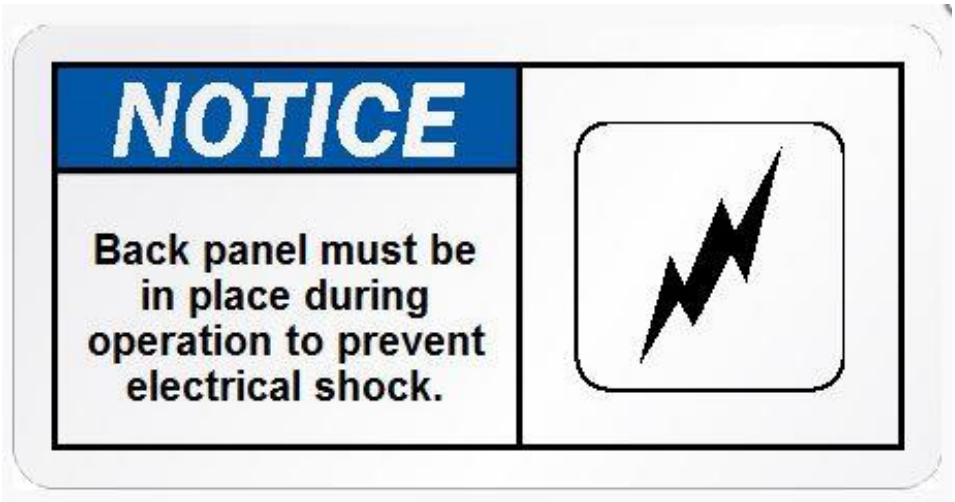
Important Safety Instructions

Misuse of the can-filling machine can result in serious injury or death. Do not use the machine in any way not covered in this manual or for any purpose other than those explained in the following pages.

Severe product damage and/or injury could result from the use of unqualified Service Technicians or non-original replacement parts. All repairs must be performed by a qualified Service Technician or with the approval from an XpressFill Technician. Only original factory replacement parts should be used.

Electrical shock or fire could result if the electrical supply for the can filler covered in this manual is not correctly installed or if the can filler has been improperly grounded. Do not use the can filler covered in this manual unless you are certain the electrical supply has been correctly installed and the can filler has been properly grounded.

Safety Warnings



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1
Introduction

XpressFill Product Guarantee

We guarantee our products to be free of defects in materials and workmanship. The filler will be repaired or replaced if, upon inspection at the factory, the filler is found to be defective in materials or workmanship.

This guarantee does not apply to damage resulting from normal wear and tear, accident, abuse, negligence or shipping. The guarantee may be rendered invalid if the customer has made repairs or alteration to the machine without first consulting XpressFill Systems LLC.

2
Know Your Filler

The below diagram highlights the important features on your filler, which will be referenced throughout this manual. Being familiar with each of these and their functions will make your filling experience easier.

1. Can pressure adjustment
2. Can fill indicator light
3. Pressure Gauge
4. Fill toggle switch (3 positions)
   - · Start fill
   - · Stop fill
   - · can release
5. Top off button
6. Pressure release switch
7. Fill and purge spout
8. Level sensor
9. Pressure release tube
10. Can neck filler stopper
11. Pneumatic ram
12. Can foot rest

1. *Fill Indicator Light:* This green light will turn on while the liquid is flowing from the spout.

2. *Can Pressure Adjustment Knob:* This knob allows you to adjust the pressure inside your can. Turning the knob counterclockwise will lower the pressure, while turning it clockwise will increase the pressure. This will typically only need to be adjusted when starting a new filling session and during cleaning.

3. *Pressure Gauge:* Indicates the pressure inside the can.

4. *Fill Switch:* The three (3) position fill switch turns the fill cycle on (up position), turns the fill cycle off but maintains a seal (center position), and releases the can supporting foot rest after the can pressure has been safely released (down position).

5. *Top Off button* This button allows you to add a "shot" of beverage after the can has been released from the stopper. This action will create an additional volume of foam o which to place the lid prior to seaming. This action is optional depending on the desired amount of foam.

6. *Pressure Release Switch:* This switch is used to manually control a valve to release the pressure in the can. The switch should be in the down position to start the fill sequence so the can will pressurize. Once the fill is complete, set the Fill Toggle Switch to the "Stop Fill" position and flip the Pressure Release Switch to the up position to release the pressure in the can.

7. *Fill and Purge Spout:* This spout is used for the gas flush and liquid filling.

8. *Level Sensor:* This sensor sets the level at which the flow will stop and be positioned up or down to change the fill level to your specifications. Be careful not to pull on the electrical wire.

9. *Pressure Release Tube:* This tube is vented to relieve the pressure in your can.

10. *Stopper:* The stopper seals your can and helps to control the level your can is filled to.

11. *Pneumatic Ram:* The pneumatic ram lifts the can foot rest and is activated when the filling sequence begins.

12. *Can Foot Rest:* These feet will hold your can securely in place once the fill sequence is started. Do not put your hands between the can and the foot to prevent injury.

3
Setting Up Your Filler and Filling Your First Can

Required Equipment

- XF4500C can filler
- Pressurized CO2 tank and 1/4" hosing (an additional CO2 tank can be used or a ‘Y’ fitting from your CO2 tank)
- Air compressor and 1/4" hosing
- Outlet container and 1/4" hosing

(See Figure 2 on page 9)

Figure 1

Connect the air/CO2 and inlet from the keg hosing to their respective attachment points shown in Figure 1.

Note: Some air/CO2 and liquid will come out of the vent in operation. The output labeled “Vent” should be connected to a container to collect any liquid.

Figure 2

1. Air compressor
2. CO2 tank
3. CO2 regulator
4. CO2 line to keg inlet
5. Pressurized keg
6. Line to “Inlet” input on filler
7. CO2 line to “CO2” input on filler
8. Compressed air line to “Air” input on filler

The recommended operating pressures for the CO2 and air compressor are listed below. Please keep in mind that varying temperatures and product properties will mean that adjusting the pressures will be necessary for your product. You are encouraged to adjust these pressures carefully until you find a combination that works for your product and bottling environment.

Pressure Recommendations

Air: 30 psi recommended
CO2: 12 psi recommended

Tip: Please see page 12 for “Adjusting Pressure” to set pressures outside the recommended settings.

Warning: Follow the recommended settings of the equipment you are using. Exceeding manufacture recommended settings may result in injury to self and others, as well as damage and/or failure of the machine.

4
Operating Procedures

It is highly recommended that waster be used during the initial set up procedure. Water allows you to familiarize yourself with the filler by removing most variables related to your product, for ease of operation, and the reduction of waste of your product.

Step By Step

1. You will first want to unpack your filler from the shipping box and spread the components out on a large flat surface. Make sure that you also have the following:
   a. Pressurized CO2 tank with regulator and connecting hosing (we recommend a wye as well, see setup diagram for details).
   b. Air compressor and 1/4" hosing
   c. A small (.5 liter or so) catch container for collecting vented liquid.
2. Place your filler on a flat surface where you plan to can, ensuring that you have access to a standard wall outlet or extension cord. Place the liquid and CO2 tanks, as well as the air compressor, nearby.
3. Attach the support legs by sliding the legs between the enclosure and the rubber feet. The support legs should extend forward, however if you extend them out the back you need to clamp them to the flat surface.
4. Begin by plugging the provided power cord into your machine, and then plug it into the wall outlet. Flip the Power Switch on the right side to turn on the filler. Confirm the cleaning switches on the left side are in the down position (Fill Mode).
5. Toggle the fill switches to the full up position (Start Fill Position). Wait a few seconds to verify that the green fill light illuminates.
6. Flip the fill switch back down to the Release Can Position, the green fill light will turn off.
7. Once you are sure the filler is powering up properly, turn off the power switch on the right side of filler.
8. Make sure the Pressure Relief Switch is in the off position (Down).

The valves on the tanks should be off.

The valves on the tanks should be off for steps 9-11

9. Plug the hose from your liquid container into the port marked “Inlet” on the left side of the machine using one of the provided 3/8” barbed fittings.

See “Adjusting Pressure” on page 12.

10. Plug one end of the provided 4’ x 1/4” tube into the port marked “Vent” on the left side of the machine, and place the other end into your catch basin.

11. Plug your air compressor into the port marked “Air” on the left side of the machine using one of the provided 1/4” barbed fittings.

See “Adjusting Pressure” on page 12.

12. Plug your CO2 tank into the port marked “CO2” on the left side of the machine using one of the provided 1/4” barbed fittings.

13. Once you are sure that all components are plugged in correctly, you can open the valves on your tanks and turn on the air compressor.

14. Turn on your machine by flipping the power switch on the right side of your machine so that is it lit up.

15. You are now ready to place a can on your machine. While pressing down on the Can Foot Rest, place a can on the can locator and lift the foot so the can slides snuggly over the stopper.

16. Make sure the Pressure Release Switch is in the off position (DOWN).

Note: A clear can has been provided to help with the initial setup, steps 17-20. Setup is done for each spout individually.

Always keep your hands clear of the can and foot rest during step 17.

17. Flip the Fill Switch to the full up position. The Can Foot Rest will immediately lift the can into a sealing position against the stopper and will purge the can for a few seconds. Once the purge process is completed, the can is pressurized.

18. After the purge and can pressurization, the fill light will come on and liquid begins to flow into the can. If no flow is visible, then the Pressure Relief needs adjustment.

See “Adjusting Pressure” on page 12.

Repeat steps 15 – 18 for the other spouts.

19. Once the green fill light deactivates, put the Fill Toggle Switch to the middle position (**do not flip** to the full down position), then you can turn on the Pressure Release Switch (UP).

20. Hold the can with one hand and flip the Fill Toggle Switch to the full down position to release air in the pneumatic ram and remove the can by pushing down on the foot rest. At this stage, you may choose to press the Top Off Button to inject a “shot” of beverage to create an additional volume of foam on which to place the lid prior to seaming.

Note: You can use the silicone surgical tubing included to fill from the bottom of the can or even halfway to the bottom.

Congratulations,
you have now filled your first can using
the XF4500C Counter-Pressure Filling System!

Adjusting Pressures

It is the pressure differential between keg/brite tank pressure and can pressure that determines the rate of filling, amount of foam and retention of CO2 in your product. Therefore, adjusting either or both pressures can result in a more favorable fill.

1. Each spout must have its can pressure set individually.
2. The pressures during filling are adjusted to obtain a quick rate of filling with limited foaming. Excessive foaming will trigger the fill sensors and stop filling prematurely. The can will begin filling again as the foam settles, but this significantly slows down the filling rate.
3. Typical maximum inlet pressures from a keg or brite tank are 30 psi and 15 psi, respectively.
4. Turning the Can Pressure Knob counterclockwise will start venting the pressure in the can and allow product to flow into the can. The more the can vents, the quicker it will fill, but foam can start to develop. The Can Pressure Knob can be adjusted to achieve an acceptable rate of fill as evidenced by the visual presence of limited foaming. Note: Pull up on knob to unlock it, push down on knob to lock pressure relieve setting.
5. The inlet pressures can also be adjusted in conjunction with can pressures to change the filling rate and foaming characteristics.

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Troubleshooting

If at any time you have issues with the setup or adjustment of your XF4500C can filling machine, or any other questions about filling your product, please contact us at the number listed at the front of this manual. We are always happy to assist you.

Excessive Foaming

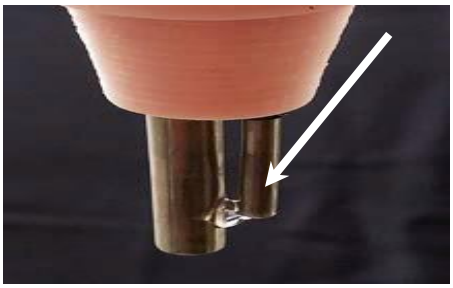
Excessive foaming is usually the result to the keg pressure not being high enough, too high fluid temperature, or the indicated pressure on the filler gauge is too low. The difference between the keg pressure and the counter pressure indicated on the filler should be around 5 psi. The higher the pressure, the more CO2 will stay in solution.

Turning the Can Pressure Adjustment Knob clockwise will increase the can pressure and reduce foaming. The higher the can pressure and lower the temperature, the more CO2 will stay in solution.

Premature Shut Off

The XF4500C is a Level Fill Machine, meaning when liquid touches a spout and probe, it will automatically shut off. If moisture is allowed to collect between the spout and the probe, the filler will shut off prematurely, stopping the fill or not allowing the fill to begin at all, which is characterized by the green LED fill indicator light to flash quickly and stay off as the machine senses a full can is in place.

Dry the area between the spout and the probe with a clean towel or use the compressor to air dry. Once completely dry, the fill will resume. Isopropyl alcohol is very good for cleaning and is fast drying.



6
Cleaning and Sanitizing

Cleaning your XpressFill is quick and easy, and is the single most important maintenance you can administer to ensure long life and solid performance from your filler. Please use extreme caution when using any cleaning product.

For general cleaning, we highly recommend a product called PBW by Five Star Chemicals. It is safe, fast, and effective, and our customers have been happy with the results. To clean your XpressFill, begin by flushing your filler with 2 gallons of plain warm (not boiling) water from a pressurized keg, which is pressurized with air. Follow that with a 3-gallon mix of PBW cleaner, and let the PBW sit inside your filler for a few minutes in order to do its cleaning job. Follow the cleaning with a sanitizer.

For sanitizing, we recommend Saniclean, from the same manufacturer. Saniclean has low foaming characteristics, is highly effective, and completely food grade if diluted correctly per the manufacturer's instructions. Use the sanitizer with about 3 gallons of water, and follow the steps according to the manufacturer's instructions. After sanitizing, flush your filler with 2 gallons of warm water. Before storing your XpressFill filler, make sure you get all water out of the flow path. Allow to run until pressurized keg with cleaning solution is empty and runs dry, blowing the remaining water out of the filler vent.

See step-by-step instructions and diagrams on the following pages.

Part One

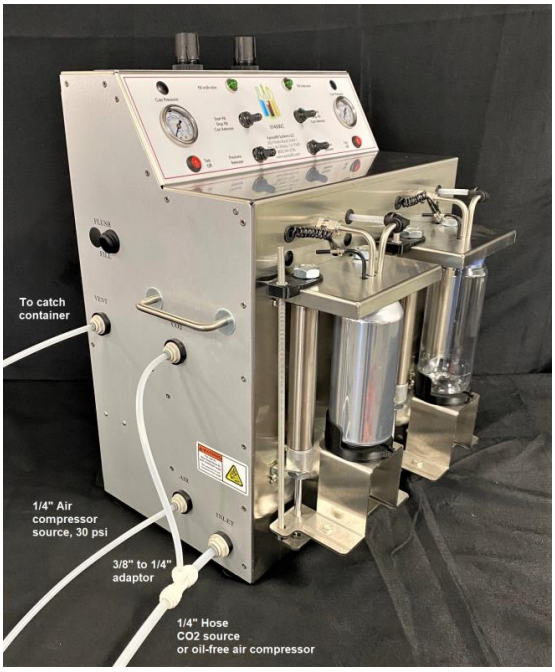
Attach cleaning hoses as pictured below. Hosing and connectors are supplied in the accessory packet.

1. Flip the Fill/Flush switches to flush mode (Rocker switches located left of machine).
2. Place can under spouts.
3. Turn on the main power switch (Green rocker switch located right side of the machine).
4. Turn on the spout fill switch, full on position all the way up. Turn on the Release Switch (UP) to allow flushing through the vent area. Also, turn the pressure release dial on the top counter-clockwise to open up the valve for fast flow.
5. Let solution fill the can completely and allow it to run for a while after full to continually flush the system.
6. Turn the spout switch to the middle position (stop fill).
7. Turn on the spout switch again all the way up (This runs the purge cycle again and allows the CO2 flow path to be cleaned as well) Repeat step 7 a few times.
8. When satisfied with the cleaning put the Fill/Flush switches back to Fill mode (down).
9. Turn off the spout toggle switch completely (fully down). This will allow you to remove the can and empty it of the remaining cleaning solution.
10. This is the end of part one of the two part process for cleaning your machine.

Part Two

Attach cleaning hoses as pictured below. Hosing and connectors are supplied in the accessory packet.

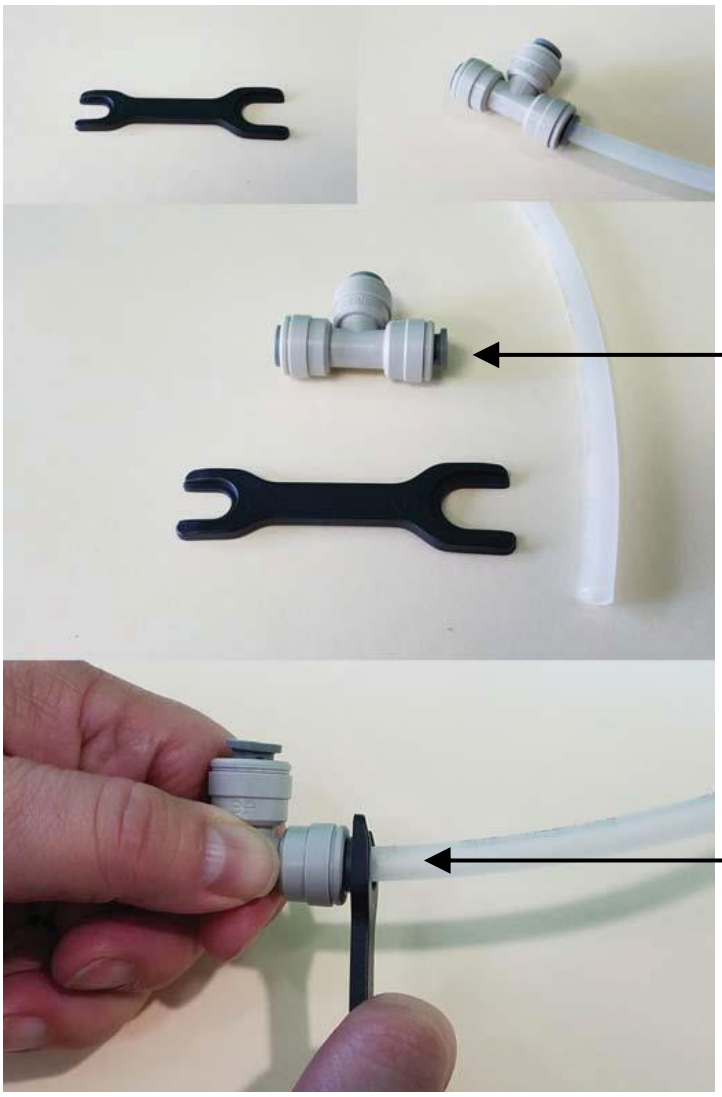
1. Turn on main power switch with cans in place. (Green switch located right side)
2. Push in to close quick release knobs.
3. With gas line on turn on spout switch and allow gas to flow through the filling system.
4. Turn spout switch to middle position, and then back up to full on position. Repeat this several times to allow the purge path to ventilate completely.
5. Turn the release pressure knob at top of machine clockwise to close valve about half way, approximately ten turns.
6. Turn on the Pressure Release Switch (UP) for maximum ventilation through the flow path.
7. When you are satisfied with the results turn off the spout switch and remove the cans.
8. Turn off the air/gas supply and remove all the hoses.
9. Turn off the machine.



6
Additional Information

Collet Release Tool

Our fillers use “Push-to-Connect” type connectors which are standard in the beverage industry. Installation simply requires pushing a hose into the fitting and pulling lightly to check that the connection is secure. Removal requires using the collet release tool to firmly push the collet and remove the tube. A tool is included with the filler and can be found inside the filler.



Collet

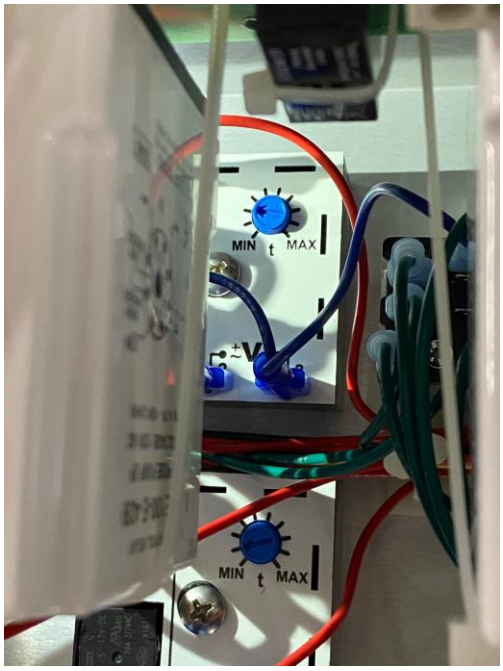
Push collet in with tool to remove hosing

Spare Fuse

There is a spare fuse in the power cord receptacle. Unplug the machine and set a screwdriver on the notch (do not remove screws) and pop the spare fuse holder toward you, then replace the fuse. XpressFill Part No. 200002 – Bussmann Series by Eaton, Model BK/GDB-2A, 250V Fast Acting, 5mm x 20mm.

The exposed fuse in the clip is the active fuse. The fuse stored in the box holder is the spare.

Delay-Timer Adjustment



Each spout has two delay timers.

To adjust time, turn the blue knobs with the arrow counter clockwise to reduce the purge time or clockwise to increase purge time.

The top delay timers control the time of CO2 flow.

The bottom delay timers control the time the vent solenoid is open, purging the can.

Note: The top timer should always be set for a bit longer than the lower timer, allowing the can to pressurize.

Fluid Solenoid Valve Deep-Cleaning Instructions

Note: This maintenance is needed only when the filler is not performing properly.

Remove the solenoid valve from the filler. Use the release tool provided to disconnect the push-to-connect fittings. If you disconnect the two wires, it does not matter which wire goes back into which terminal.

Loosen the hex nut at the top of the coil assembly. Unscrew the base from the coil assembly. Use a screwdriver as needed. Remove the center shaft. Note and keep track of the flat O-ring. A pair of pliers may be needed to grip the metal shaft to "crack" open for unscrewing the shaft.

Now clean out all openings inside and outside of the solenoid valve, removing any particulates and stickiness that may have accumulated.

Reassemble and replace in the filler.

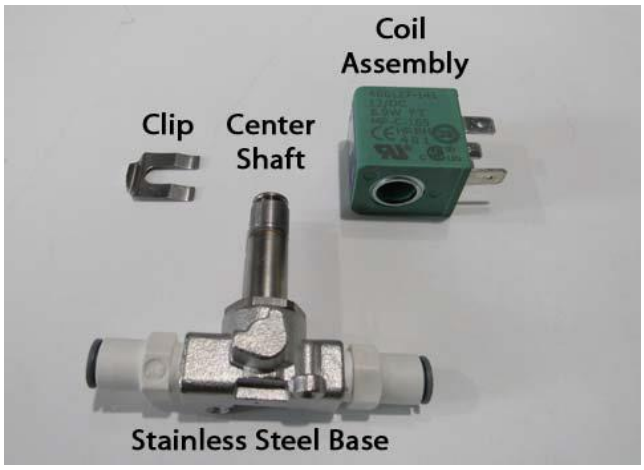
The white plastic body is marked #1 for output and #2 for input. The valve may leak if installed backwards.

CO2 Purge Solenoid Valve Deep-Cleaning Instructions

Note: This maintenance is needed only when the filler is not performing properly.

Remove the solenoid valve from the filler. Use the release tool provided to disconnect the push-to-connect fittings from the tubes. If you disconnect the two wires, it does not matter which wire goes back into which terminal.

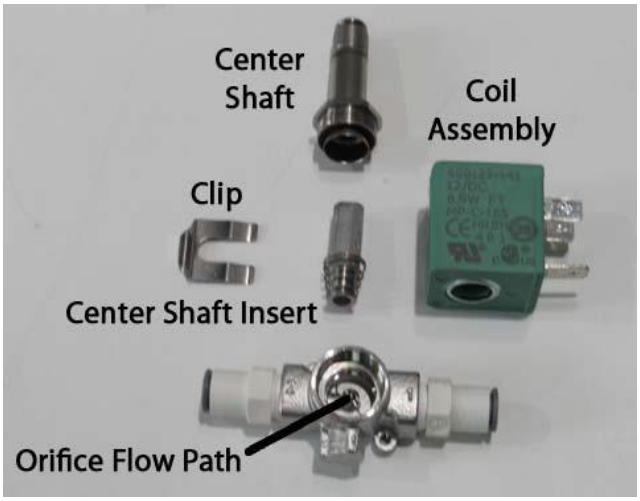
Slide off the clip from the top of the coil assembly. Remove the coil assembly off the center shaft. Unscrew the shaft from the stainless steel base. It is not necessary to unscrew the tubing adaptors from the stainless steel base.



Now rinse out all the openings inside and outside of the solenoid valve, removing any particulates and stickiness that may have accumulated.

Reassemble and replace in the filler.

Stainless steel valve body is marked #1 for input, #2 for output. *Note:* Valve may leak if installed backwards.



Pressure Adjustment Knob Deep-Cleaning Instructions

Note: This maintenance is needed only when the filler is not performing properly.

Remove the pressure relieve valve from the filler. Use the release tool provided to disconnect the push-to-connect fittings from the tubes.

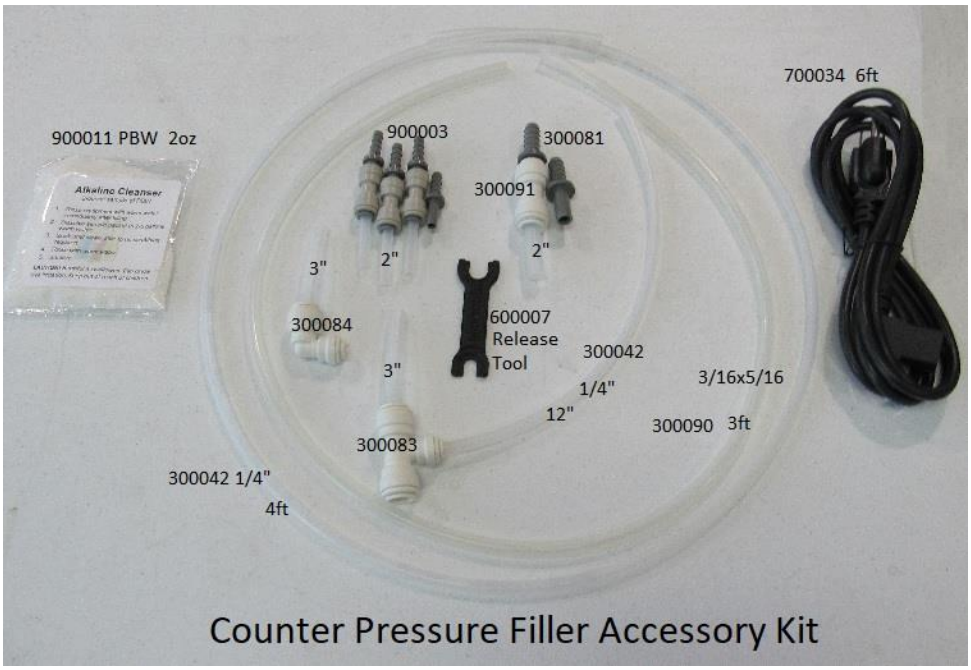
Turn the knob counterclockwise until you feel a resistance and push down (lock position). Unscrew the black plastic housing (including knob) from the brass base. It is not necessary to unscrew the tubing adaptors from the brass base.

Now rinse out all the openings inside and outside of the valve, removing any particulates and stickiness that may have accumulated.

Reassemble and replace in the filler.

The Brass body is marked “IN” on one side. This is the input side.

Accessory Kit



Part Number Key

100169 – Chassis Support Legs

300042 – 1/4” ID Polyethylene hosing

300081 – 3/8” Hose barb connector

300083 – 3/8”x3/8”x1/4” Reducing tee

300084 – 3/8”x1/4” Reducing elbow

300090 – 3/16” ID Surgical tubing

300091 – 3/8” Union connector

900003 – 1/4” Hose barb connector