

# XpressFill XF4500C Counter Pressure Can Filler

## Operating Instructions





## **Congratulations on the purchase of your XpressFill bottle filling machine.**

Thank you for choosing our handcrafted bottle filler as the technology to bottle 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 bottle-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 bottle filler covered in this manual is not correctly installed or if the bottle filler has been improperly grounded. Do not use the bottle filler covered in this manual unless you are certain the electrical supply has been correctly installed and the bottle filler has been properly grounded.

## Safety Warnings

<b>⚠ WARNING</b>	
<b>Hazardous Voltage!</b> Disconnect power before servicing.	
<b>⚠ WARNING</b>	
<b>For use in Non-Hazardous &amp; well ventilated area.</b> This equipment is not Explosion Proof rated!	
<b>NOTICE</b>	
<b>Back panel must be in place during operation to prevent electrical shock.</b>	

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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 will 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 fill indicator light
2. Can pressure adjustment (30 turn dial)
3. Pressure gauge
4. Fill toggle switch (3 position)
  - a. Start fill
  - b. Stop fill
  - c. Bottle release
5. Pressure release knob
6. Fill and purge spout
7. Level sensor
8. Pressure release tube
9. Can neck filling stopper
10. Pneumatic ram
11. Can rest foot



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

**2. Can Pressure Adjustment Dial**- Pressure release dial (30 turn) that allows you to adjust the pressure inside the can. Turning the dial counterclockwise will lower the pressure inside the can, while turning it clockwise will increase the pressure. This will typically only need to be adjusted when setting up your filler for the first time with a new liquid.

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

**4. Fill Toggle Switch (3 position)** - This switch starts the fill in the full up position, stops the fill in the middle position, and releases the pneumatic ram holding the can in place in the bottom position.

**Start Fill:** Full Up

**Stop Fill:** Middle

**Release Can:** Full Down

**5. Pressure Release Knob** -

This is a push / pull knob to manually control a valve to release the pressure in the can. This knob should be pushed in prior to starting the fill sequence so the can will pressurize. Once the fill is complete, set the Fill Toggle Switch to the “Stop Fill” position and pull the Pressure Release Knob to release the pressure in the can.

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

**7. 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.

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

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

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

**11. 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



Figure 2

- |                          |                                                 |
|--------------------------|-------------------------------------------------|
| 1. Air Compressor        | 5. Pressurized Keg                              |
| 2. CO2 Tank              | 6. Line to “Inlet” input on Filler              |
| 3. CO2 Regulator         | 7. CO2 line to “CO2 input on Filler             |
| 4. CO2 Line to Keg Inlet | 8. Compressed air line to “Air” input on Filler |

The maximum recommended operating pressure for the CO2 and air compressor are listed to the right. 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.

**Air:** 30 psi recommended

**CO2:** 12 psi recommended

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



# 4 Operating Procedures

## 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:
  - i. CO2 tank with regulator and connecting tubes (we recommend a wye as well, see setup diagram for details).
  - ii. Air compressor and hookup tubings
  - iii. 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.
3. Attach the support legs by sliding the legs between the enclosure and rubber feet.
4. Begin by plugging the provided power cord into your filler, and then plug it into the wall outlet. Flip the Power Switch on the right side up to turn the filler on. Make sure 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 Bottle position (the green fill light will go off).
7. Once you are sure the filler is powering up properly, turn off the power switch on the right side.

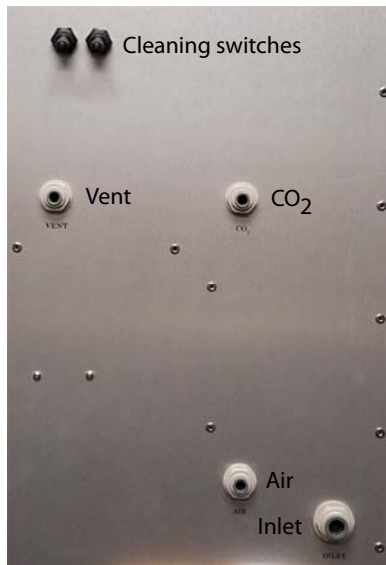
8. Make sure the Pressure Relief Knob is pushed in.

**The valves on the tanks should be off.**



1. Can fill indicator light
2. Can pressure adjustment dial
3. Fill toggle switch
4. Pressure release knob

**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 filler using one of the provided 3/8” barbed fittings. See “Adjusting Pressure” on page 7.
10. Plug one end of the provided 4’ x 1/4” tube into the port marked “Vent” on the left side of the filler, 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 filler using one of the provided 1/4” barbed fittings. See “Adjusting Pressures” on page 7.
12. Plug your CO2 tank into the port marked “CO2” on the left side of the filler 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 filler by flipping the power switch on the right side of your filler so that it is lit up.  
Note: A clear can is provided to help with the initial setup, steps 17-20. Setup is done for each spout individually.
15. You are now ready to place a can on your filler. While pressing down on the Can Foot Rest, place a can on the can locator and lift the foot so the can slides snugly over the stopper
16. Make sure the Pressure Release Knob is pushed in.  
**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 CanFoot Rest will immediately lift the can into a sealing position against the stopper, purge a few seconds with CO2, then pressurize the can.
18. After the purge and can pressurization, the fill light will come on and liquid begins to flow into the can. See Adjusting Pressures in the following section.  
**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) and pull the Pressure Release Knob.
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.

**Congratulations!**  
**You have now filled your first cans using the XF4500C 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 CO<sub>2</sub> 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 12 psi.
4. Turning the Can Pressure Dial 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 Dial can be adjusted to achieve an acceptable rate of fill as evidenced by the visual presence of limited foaming.
5. The inlet pressures can also be adjusted in conjunction with can pressures to change the filling rate and foaming characteristics.

# 5 Trouble Shooting

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.

## **Premature Shut Off**

The XF4500C is a Level Fill machine, meaning when liquid touches a spout and the 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. This is evidenced by the green LED fill indicator light flashing once quickly and then staying off as the machine “senses” a full bottle 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 can resume. Isopropyl alcohol is very good for cleaning and is fast drying.

## **Excessive Foaming**

Excessive foaming is usually the result of:

- i. too much pressure difference between the keg pressure (inlet pressure) and the can pressure, or
- ii. too high a filling temperature.

Turning the Bottle Pressure Adjustment Dial clockwise will increase the can pressure and reduce foaming. The higher the can pressure and lower the temperature, the more CO<sub>2</sub> will stay in solution.

# 6 Cleaning

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.

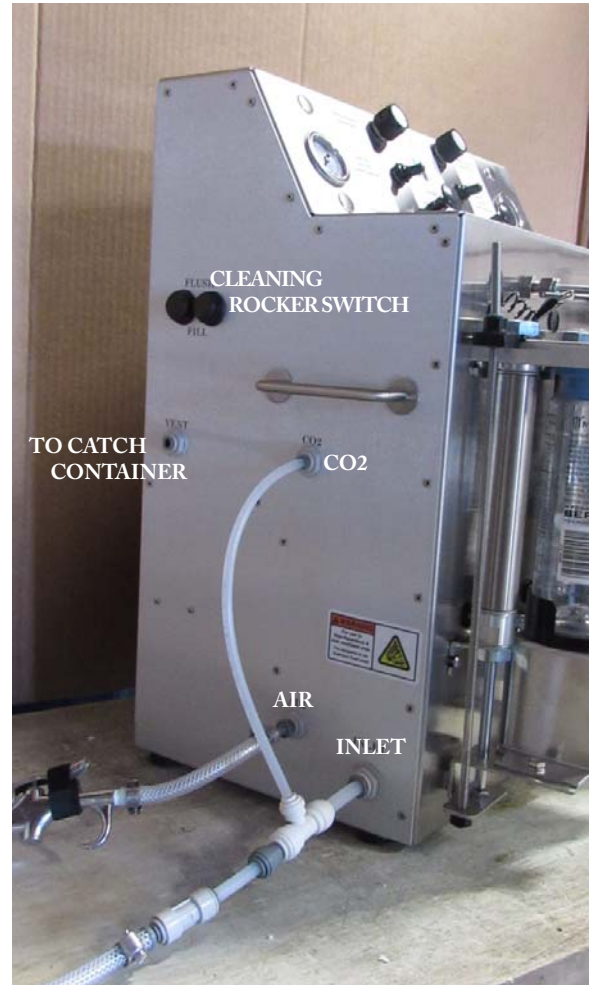
For sanitizing, we recommend Saniclean, from the same manufacturer. Saniclean has low-foaming characteristics, is highly effective, and completely food grade if diluted correctly per the manufacturer's instructions. Use the sanitizer with about 3 gallons of water, and follow the steps according to the 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 instructions on the following page.**

## Cleaning - Part I

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

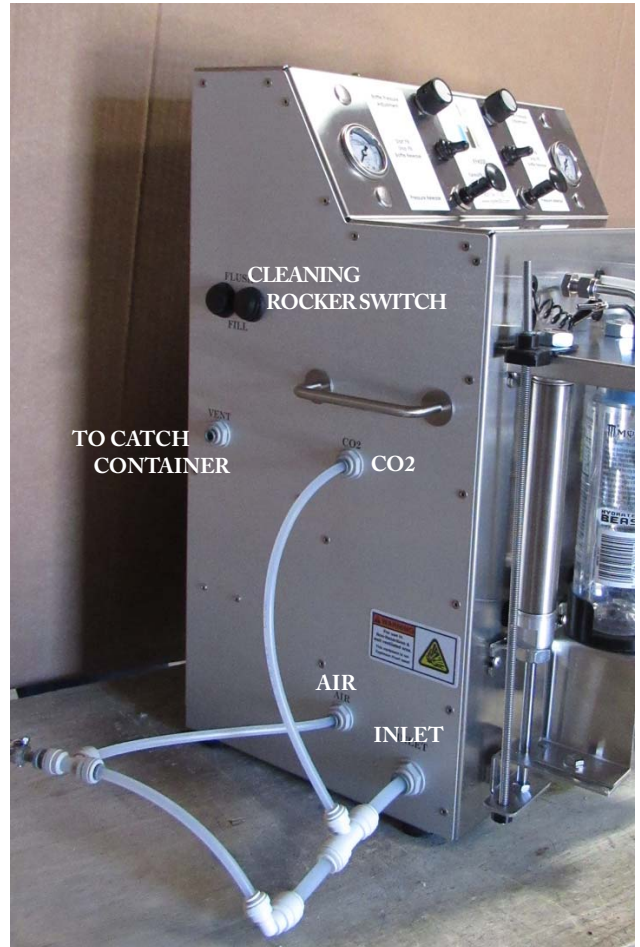
1. Flip the Fill/Flush switches to flush mode. (Rocker switches located on the left side of the filler.
2. Place cans under the stoppers.
3. Turn on the main power switch. (Green rocker switch located on the right side of the filler.
4. Turn on spout fill toggle switch, full on position all the way up. Pull the pressure release knob to allow flushing through the vent area. Also, turn the pressure release dial on top, counter clockwise to open up the valve for fast flow.
5. Let the solution fill the can completely and allow to run for a while after full to continually flush the system.
6. Turn the spout toggle switch to the middle position, (stop fill).
7. Turn on the spout toggle 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 8 - 10 times.
8. When satisfied with the cleaning, put the cleaning 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. Rinse / Sanitize the filler following steps 1 - 9 according to the cleaning solution manufacturer's instructions.
11. This completes part I of the two part process for cleaning your filler.



## Cleaning - Part II

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

1. Turn on the main power switch with cans in place. (Green switch located on the right side.)
2. Push in the quick pressure release knobs to close.
3. With gas line on, turn on the 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 fully allow the purge path to ventilate.
5. Turn the release pressure dial at the top of the filler clockwise to close the valve about half way, approximately ten turns.
6. Pull open the quick release knob for maximum ventilation through the flow path.
7. After a minimum of 2 minutes, 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 filler.



## Additional Information

Our fillers use “Push-To-Connect” type connectors which are standard in the beverage industry.

1. Installation simply requires pushing a tube into the fitting and pulling lightly to check that the connection is secure.
2. Removal requires using the included tool to firmly push the collet and remove the tube.

