XpressFill XF4500 Counter Pressure 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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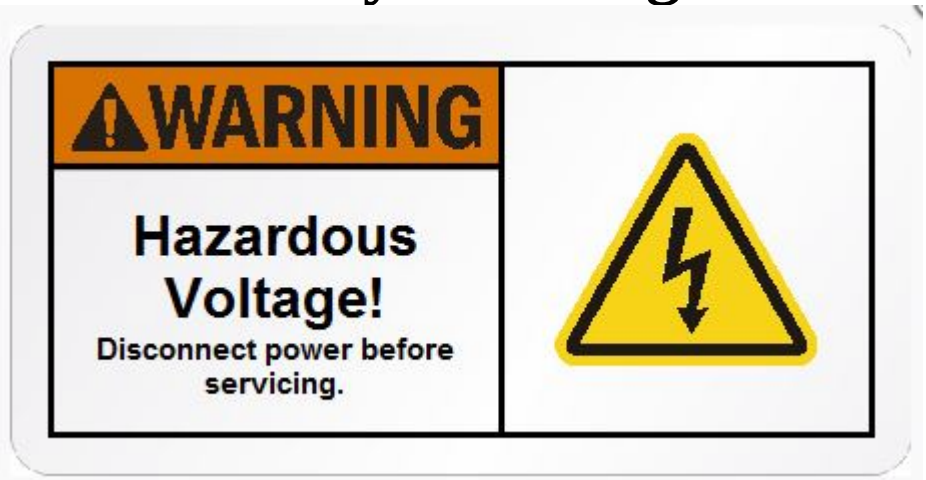
Important Safety Instructions

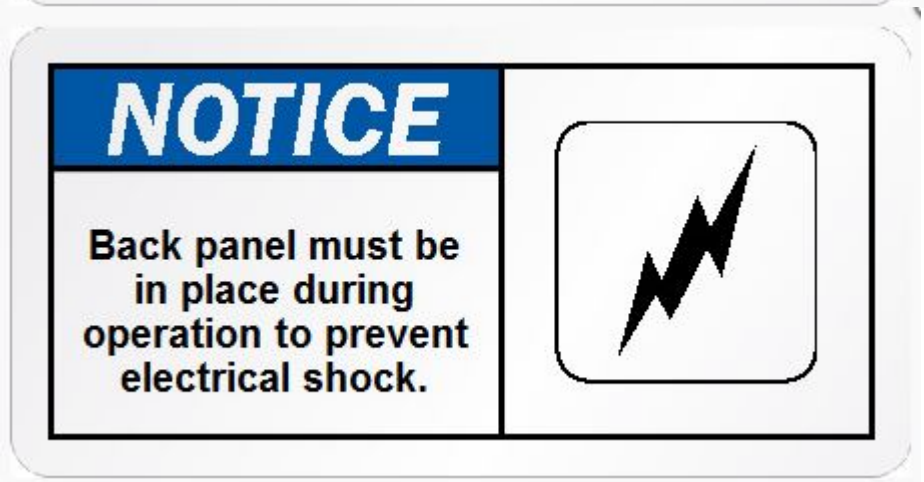
Misuse of the bottle-filling machine can result in serious injury or death. Do not use the machine in any way not covered in this manual or for any purpose other than those explained in the following pages.

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





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1 Introduction

XpressFill Product Guarantee

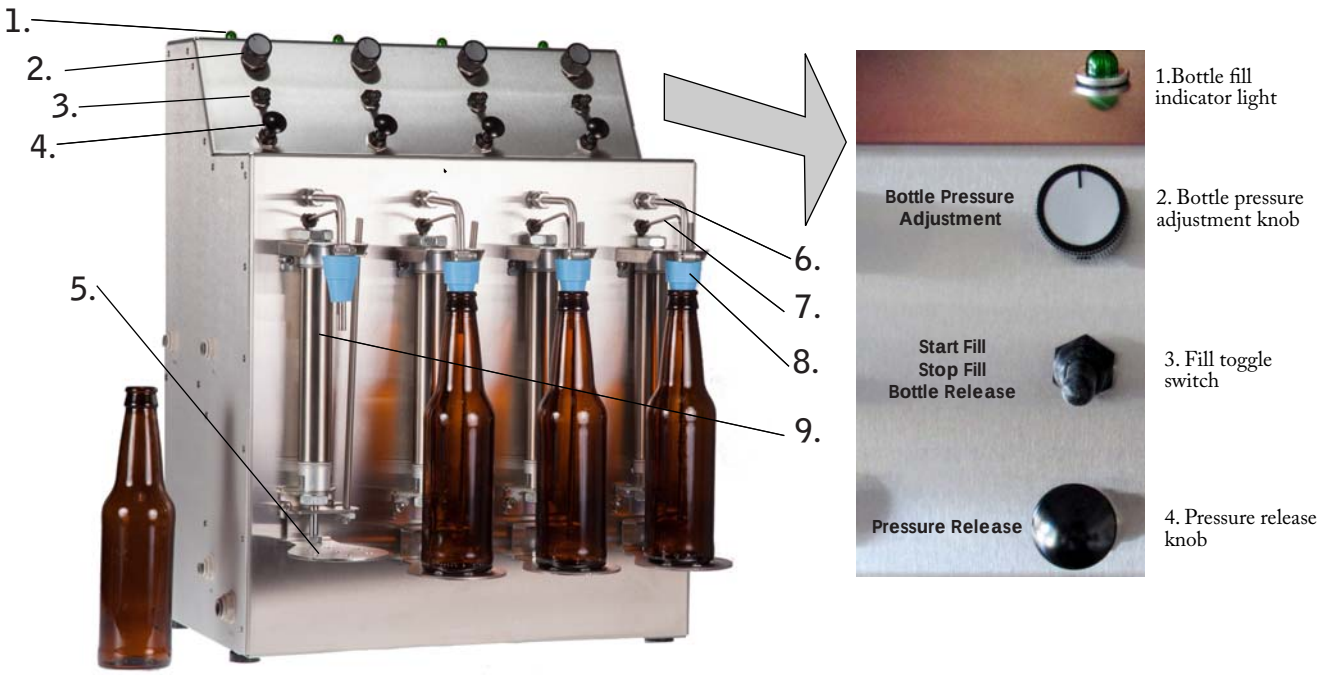
We guarantee our products to be free of defects in materials and workmanship. The filler will be repaired or replaced if, upon inspection at the factory, the filler is found to be defective in materials or workmanship.

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. Bottle fill indicator light
2. Bottle pressure adjustment (30 turn knob)
3. Fill toggle switch (3 position)
    a. Start fill
    b. Stop fill
    c. Bottle release
4. Pressure release knob
5. Bottle rest foot
6. Upper spout / product filling
7. Lower spout / pressurizing & release
8. Bottle neck filling stopper
9. Pneumatic ram



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

2. Bottle Pressure Adjustment Knob - Pressure release knob (30 turn) that allows you to adjust the pressure inside the bottle. Turning the knob counterclockwise will lower the pressure inside the bottle, 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. 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 bottle in place in the bottom position.
Start Fill: Full Up
Stop Fill: Middle
Release Bottle: Full Down

4. Pressure Release Knob - This is a push / pull knob to manually control a valve to release the pressure in the bottle. This knob should be pushed in prior to starting the fill sequence so the bottle 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 bottle.

5. Bottle Foot Rest - These feet will hold your bottle securely in place once the fill sequence is started. Do not put your hands between the bottle and the foot to prevent injury.

6. Upper Spout - This spout is used for the gas flush and filling.

7. Lower Spout - This spout is vented to relieve the pressure in your bottle and acts as the sensor for the automatic level filling system.

8. Stopper - The stopper seals your bottle and helps to control the level your bottles is filled to. While the stoppers are already set for the level of a typical 12 oz. beer bottle, they can be adjusted up and down on the spout to fill to your own specifications.

9. Pneumatic Ram - The pneumatic ram lifts the bottle foot rest and is activated when the filling sequence begins.

3 Setting Up Your Filler and Filling Your First Bottle

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 are 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: 30 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 bottle, 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 machine, 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.

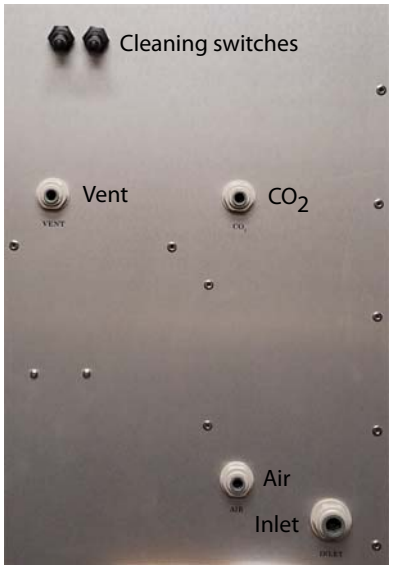
1.Bottle fill indicator light

2. Bottle pressure adjustment knob

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 machine 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 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 Pressures" on page 7.

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 bottle on your machine. While pressing down on the Bottle Foot Rest, place a bottle on the Bottle Foot Rest and allow the return spring to **lightly** hold the bottle against the stopper.
Note: During the purge process, the bottle will temporarily unseat from the stopper to allow air to escape.

16. Make sure the Pressure Release Knob is pushed in.

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

17. Flip the Fill Switch to the full up position. The filler will purge the bottle for a few seconds, after which the Bottle Foot Rest will immediately lift the bottle into a sealing position against the stopper and pressurize the bottle.

18. After the purge and bottle pressurization, the fill light will come on and liquid begins to flow into the bottle. If no flow is visible, then the Pressure Relief needs adjustment. 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 bottle with one hand and flip the Fill Toggle Switch to the full down position to release air in the pneumatic ram and remove the bottle.

Congratulations!
You have now filled your first bottles using the XF4500 Filling System.

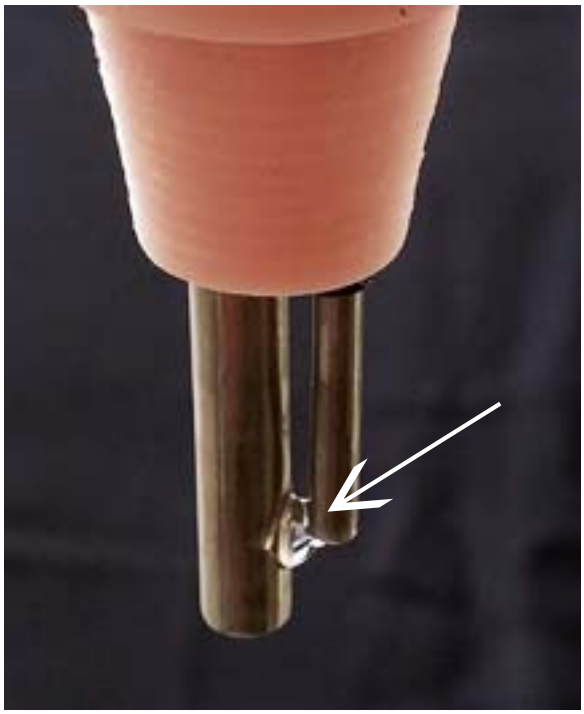
Adjusting Pressures

It is the pressure differential between keg/brite tank pressure and bottle 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 bottle 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 bottle 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 Bottle Pressure Knob counterclockwise will start venting the pressure in the bottle and allow product to flow into the bottle. The more the bottle vents, the quicker it will fill, but foam can start to develop. The Bottle Pressure Knob 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 bottle 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 XF4500 bottle 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 XF4500 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 bottle pressure, or
ii. too high a filling temperature.

Turning the Bottle Pressure Adjustment Knob clockwise will increase the bottle pressure and reduce foaming. The higher the bottle pressure and lower the temperature, the more CO2 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

1. Cleaning toggle on left side to up position. (Flush Mode)

2. Vent tube to catch container

3. Connect the tubing from the pressurized container with cleaning solution into the Inlet. 10-15 psi pressure is adequate to flush the filler.

4. Connect the tubing from the Air compressor to the Air inlet.

5. Flush each spout as follows:
   a. Put an empty bottle in place
   b. Flip Fill Toggle Switch to up position
   c. Bottle will fill and cleaning solution will flow out the vent tube.
      i. Clean the Bottle Pressure valve by fully opening the valve (turn full counterclockwise). Close the valve halfway (turn clockwise about 10 turns).
      ii. Cycle the Pressure Relief valve by pulling and pushing the knob several times. Finish with the knob pressed in.
      d. Flip the Fill Toggle Switch to the middle position.
      e. Pull the Pressure Release knob.
      f. Flip the Fill Toggle Switch down, remove and empty the bottle.

6. After all spouts have been cleaned repeat step the above steps with warm water in the pressurized container.

7. Flush the remaining water from the filler as follows:
   a. Once the warm water is out of the pressurized container, follow steps 5d-5f. Again put an empty bottle in place.
   b. Flip Fill Toggle Switch to up position
   c. Since the keg is empty of fluid the gas pressurizing it will flow into the filler and push liquid out. Cycle the Bottle Pressure and Pressure Relief valves.

d. Follow steps 5d-5f to depressurize bottle before removing.
e. Return Cleaning Switches to the down position (Fill Mode)
f. Turn off filler
g. Turn off pressure to pressurized container and air pressure.
h. Disconnect hoses and electrical cord, tip filler on its left side so any residual liquid can drip out.
i. Wipe down and store in clean and dust/dirt free environment for next usage.

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.