

# XpressFill XF2500 Counter Pressure Filler

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## 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 or 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. Bottle fill indicator light     | 6. Bottle rest foot                     |
| 2. Fill sequence start/stop switch | 7. Upper spout / product filling        |
| 3. Quick pressure release knob     | 8. Lower spout / pressurizing & release |
| 4. Bottle interior pressure gauge  | 9. Bottle neck filling stopper          |
| 5. Bottle interior adjustment knob | 10. Pneumatic ram                       |



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

**2. 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 bottle supporting foot rest after the bottle pressure has been safely released (down position).

**3. Pressure Release Button** - This button will manually release the pressure inside your bottle. It will be used at the end of each fill sequence or in case of emergency.

**4. Bottle Pressure Gauge** - This gauge displays the pressure inside the bottle, which should be lower than the pressure inside your keg or liquid reservoir. (See our operating instructions for our recommendations for what each of these gauges should display).

**5. Bottle Pressure Adjustment Knob** - This knob allows you to adjust the pressure inside your bottle. 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 setting up your filler for the first time with a new liquid.

**6. Bottle Foot Rest** - These feet will hold your bottle securely in place once the fill sequence is started. Avoid putting your hands between the bottle and the foot to prevent injury.

**7. Larger Spout** - This spout is used for the gas flush and filling sequences.

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

**9. 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.

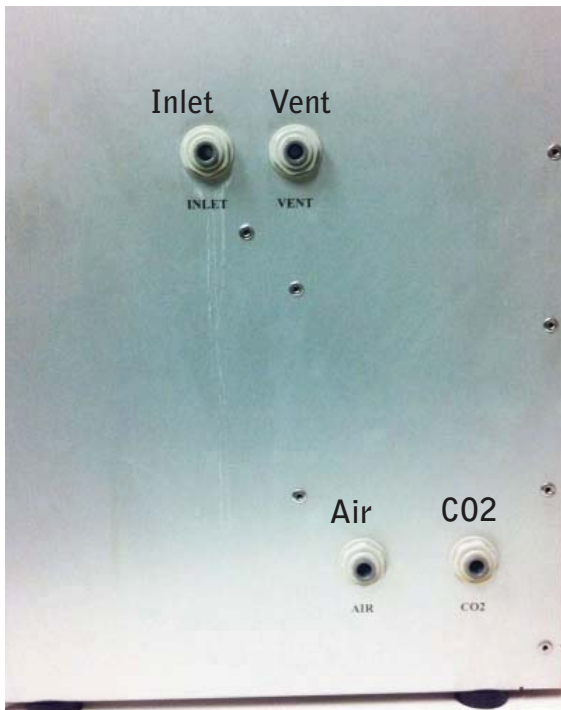
**10. Pneumatic Ram** - The pneumatic ram actuates the bottle and foot rest and are activated when the filling sequence begins

# 3 Setting Up Your Filler and Filling Your First Bottle

## Required Equipment

1. XF2500 Bottle Filler
2. Pressurized CO2 Tank and Tubing
3. Air Compressor and Tubing (an additional CO2 tank can be used or a 'Y' fitting from your CO2 tank)
4. Outlet Container and Tubing

Figure 1



Connect the air/CO2 and inlet from the keg tubing to their respective attachment points shown in Figure 1. (Some air/CO2 and liquid will come out of the vent in operation. The tube labeled Vent leading to a catch container should be connected at the Vent port to collect any liquid.)





Figure 2

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>1. Air Compressor</li> <li>2. CO2 Tank</li> <li>3. CO2 Regulator</li> <li>4. CO2 Line to Keg Inlet</li> </ul> | <ul style="list-style-type: none"> <li>5. Pressurized Keg</li> <li>6. Line to “Inlet” input on Filler</li> <li>7. CO2 line to “CO2 input on Filler</li> <li>8. Compressed are line to “Air” input on Filler</li> </ul> |
|--|--|

**Your filler is factory set for 30 psi keg pressure and 25 psi bottle pressure.**

The recommended operating pressures 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 manufacture recommended settings may result in injury to self and others, as well as damage and/or failure of the machine.

*Please see page 5, “Adjusting Pressures” to set pressures outside the recommended settings.*

# 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. You will want to 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. Place the liquid and CO2 tanks, as well as the air compressor, nearby. Attach the support legs by sliding the legs between the enclosure and the rubber feet.
3. Begin by plugging the provided power cord into your machine, and then plug it into the wall. Now is a good time to make sure that when you turn the machine on, the green power switch lights up.
4. Once you are sure that you have power to the machine, flip all switches to their down or off position and pull open the quick pressure relief knob. Then push close.
5. Plug the hose from your liquid container into the port marked "Inlet" on the left side of the machine using one of the provided  $\frac{1}{4}$ " barbed fittings. See "Adjusting Pressures" on page 5.
6. Plug one end of the provided 4' x  $\frac{1}{4}$ " tube into the port marked "Vent" on the left side of the machine, and place the other end into your catch container.
7. Plug your air compressor into the port marked "Air" on the left side of the machine using one of the provided  $\frac{1}{4}$ " barbed fittings. Your filler is factory set for 30 psi keg pressure and 25 psi bottle pressure. See "Adjusting Pressures" on page 5.
8. Plug your CO2 tank into the port marked "CO2" on the left side of the machine using one of the provided  $\frac{1}{4}$ " barbed fittings.
9. Once you are sure that all components are plugged in correctly, you can open the valves on your tanks and turn the air compressor on.
10. Turn on your machine by flipping the power switch on the right side of your machine so that it is lit up.
11. 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 Bottle Foot Rest to lift the bottle towards the Stopper. For a standard 12 oz. bottle, place the provided spacer under the Bottle Foot Rest. For a standard 22 oz. "bomber" bottle, no spacer is used. (See the illustration on the following page.)

12. After a few seconds of pressurizing the fill light will turn on. This light indicates that the fluid solenoid is open and filling should start. If no liquid is flowing, adjust the bottle interior pressure adjustment knob counter clockwise (open) to the desired flow rate. If the flow is too fast you may adjust the bottle interior pressure knob clockwise (close) to slow the flow rate down.
13. When the fluid has reached the desired level, the fill light will go out and the fluid solenoid will close. Place the fill switch to the center position which will deactivate the
13. cont. fill light and solenoid circuit. In the center position the Bottle Foot Rest is still engaged.
14. While the Bottle Foot Rest is still engaged, pull the Quick Pressure Relief knob. This allows the bottle to depressurize. Place the fill switch to the full down position and the Bottle Foot Rest will disengage allowing you to remove the bottle for capping. After removing the bottle and before you place your next bottle on the machine, close the Quick Pressure Relief knob (push in).

Congratulations, you have now filled your first bottle using the XF2500 Filling System!

## Adjusting Pressures

Should your filler need to be adjusted from the preset recommended settings, follow the steps listed below. Adjusting the pressure takes some coordination, so it is recommended that you read through and understand all of the following steps before attempting this.

1. Follow steps 1-11 outlined in the setup instructions, setting the keg and CO2 pressures to your required values rather than to the recommended settings.
2. Using two fingers, turn the bottle pressure adjustment knob counterclockwise until it becomes difficult to turn. Using too much force may damage the valve.
3. Follow step 12-14 outlined in the setup instructions. Once the bottle foot rest is engaged, quickly switch to turning the bottle pressure adjustment knob clockwise while watching the bottle pressure gauge until the desired internal pressure is reached. The goal is to reach the desired value before the purge process ends, see note below for details. This value should be roughly 5 psi lower than the keg pressure, but the optimal value for your needs may vary.

NOTE: You will only have a few seconds to adjust the pressure during the gas purge process before the liquid begins filling. It is more difficult to accurately adjust the machine once liquid starts flowing, so it is recommended that you follow steps 16 and 17 in the setup instructions to cancel the filling process, and repeat step 3 in this guide until the desired pressure is reached.

4. Once you have reached the desired internal bottle pressure as indicated on the bottle pressure gauge, it is recommended that you fill 1-3 test bottles to ensure the desired results have been achieved. Small adjustments can be made using the same steps as above.
5. Repeat process on other spout.

# 5 Trouble Shooting

If at any time you have issues with the setup or adjustment of your XF2500 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 XF2500 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 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 will resume. Isopropyl Alcohol is very good for cleaning and is fast drying.

## **Excessive Foaming**

Excessive foaming is usually the result to the keg pressure not being high enough, 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 the 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 diagram on following page.**





XF2500 Cleaning Configuration Part One

Attach cleaning hoses as pictured above. Tubing and connectors are supplied in the power cord bag.

1. Flip the Fill/Flush switches to flush mode (Rocker switches located left of machine).
2. Place bottles under spouts.
3. Turn on the main power switch (Green rocker switch located right side of the machine).
4. Turn on spout switch, full on position all the way up. Pull the pressure release knob to allow flushing through vent area. Also, turn the pressure release knob on top, counter clockwise to open up the valve for fast flow.
5. Let solution fill the bottle completely and allow it to run for a while after full.
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 switch completely. This will allow you to remove the bottle 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.



XF4500 Cleaning Configuration Part Two

Attach cleaning hoses as pictured above. Tubing and connectors are supplied in the power cord bag.

1. Turn on main power switch with bottles 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 fully allow the purge path to ventilate.
5. Turn the release pressure knob at top of machine clockwise to close valve about half way, approximately ten turns.
6. Pull open the quick release knob for maximum ventilation through that flow path.
7. When you are satisfied with the results turn off the spout switch and remove the bottles.
8. Turn off the air/gas supply and remove all the hoses.
9. Turn off the machine.

# XF2500 Setup

