

KEG WASHER



OPERATION MANUAL

Congratulations on your purchase and thank you for selecting the Blichmann Engineering Pro Brewing Keg Washer!

We are confident that it will provide you years of service, as you continue to craft many gallons of outstanding beer. This manual will familiarize you with the use, assembly, and recommended sanitation procedures.



IMPORTANT INFORMATION

PLEASE READ AND THOROUGHLY UNDERSTAND THIS MANUAL PRIOR TO USE FOR IMPORTANT SAFETY INFORMATION!

WARNING: Sections labeled “Warning” can lead to serious injury or death if not followed. Please thoroughly read these sections and understand them completely before use. If you do not understand them or have any questions, contact your retailer or Blichmann Engineering (www.BlichmannEngineering.com) before use.

CAUTION: Sections labeled “Caution” can lead to equipment damage or unsatisfactory performance of the equipment. Please read these sections thoroughly. If you have any questions, contact your retailer or Blichmann Engineering (www.BlichmannEngineering.com) before use.

IMPORTANT: Sections labeled “Important” should specifically be followed to ensure satisfactory results with the product.

What’s In the Box?

Item Number	Description	Quantity	Item Number	Description	Description
BE-001633	Attached 120v Heater	1		10ft. Drain Hose	1
BE-001418	Gas Quick Connect Barb	2	BE-000471	15 Gallon Kettle Lid	2
BE-001419	Gas Quick Connect Body	2			

Features

The Blichmann Engineering Pro-Series Keg Washer comes with all the equipment needed to start cleaning your kegs with the simple push of a button. We are confident that it will not only save you needed time, but work, to support your operational growth.

Some of the features include:

- Compatible with most keg sizes on the market like the 1/6 BBL and 1/2 BBL kegs with D type Sankey connections (can utilize any coupler, however, with swap).
- Semi-automatic operation (automated wash cycle) lets you truly set-it and forget-it while you entertain customers in your tap room or brew.
- Intuitive selectable wash options, takes the guess work out of ensuring the proper sanitization is happening.
- Selectable purge supply (CO2 or alternative gas combination)
- Operates on 120v power, so no need for a specialized electrical install
- Durable and precision crafted 15-Gallon Stainless Steel sanitizer and washer tank
- Convenient drain feature and casters provide mobility to maximize your current space.

Specifications

Power: 1 x 120V (20 AMP) receptacle for controller power

Rinse Water Supply: 2.5 gallons per minute minimum flow/7 gallons per minute maximum optimal pressure

Pressure/Temperature:

- Pressure is 80psi maximum, regulator required otherwise.
- Water pressure above 80psi may result in water being left in the keg after use.
- Temperature range is 40-80° F

CO2 Supply/Air Compressor:

- **Flow (high flow commercial regulator required on CO2 supply)**
- Pressure: 50-60 PSI
- Adjust for preferred and post-wash pressure optimal result, however, please be aware that improper pressure amounts can result in incomplete washing/draining.

Space Requirements:

- Machine Size: 46" x 19" x 43"
- Minimum floorspace for operation: 4.5' x 5', with floor drain access for convenient draining

Upon receiving your Keg Washer, please inspect the unit for shipping damage and reach out to the Pro Brewing Team if you have any questions (probrewing@blichmannengineering.com). Make sure to wipe down the inside of the kettles to remove any contaminants that may have fallen during the shipping process. Importantly, you'll want to ensure and apply thread tape to the air and CO2 connections!

General Wash Cycle

The Blichmann Engineering Pro-Series Keg Washer follows a 5-step automated cycle:

1. Pre-Rinse (unheated rinse water)
2. Chemical Wash (caustic or acid wash solution)
3. Post Rinse (unheated rinse water)
4. Sanitize
5. Purge and Pressurize

At the end of each cycle a pressure assisted purge drains the kegs, sending rinse water out to the drain, and recycles the wash and sanitizer solutions. These “end of cycle purges” can be selected to be supplied by CO2 or alternative compressed gas. The loss of some sanitizer and wash solution is normal and necessary on each cycle to prevent contamination and dilution of the wash and sanitizer tanks.

To maintain your keg washer's operation, you will need to refill the chemical tanks every 20-25 kegs.

Many sanitizers will come out of solution and be ineffective beyond a certain temperature. To eliminate this and to achieve consistent post-wash keg pressures, the rinse cycles must be supplied with unheated rinse water to return the keg to an acceptable temperature before the sanitizer and pressurize steps take place in the wash cycle. Refer to the “recommended chemicals” section of this manual for more specific details and instructions on selecting and using appropriate wash chemicals.

WARNING: Leave the lids on the wash and sanitizer tanks at all times during the cycle operation to eliminate the risk of chemical splash!

Keg Cleaning Specifications

1. Release the E-STOP with a short clockwise turn.
2. Fill tanks with water and then add in chemicals (always add water first).
3. Connect control panel to power.
4. Turn on the heater to heat up wash tank-control knob is located under the black cap.
5. Connect water supply to the garden hose connector.
6. Connect CO2 supply (and compressed air supply, if applicable) and set regulator/s to required pressure range of 50-60 PSI. If using regular compressed air, set the “AIR PURGE” selector to “ON.”
7. Route the drain hose (on the back of the Keg Washer) to floor drain, ensuring that the drain underneath the Keg Washer is closed during operation. *DO NOT PUT THE DRAIN HOSE IN A POSITION WHERE THE LIQUID HAS TO RUN UPHILL!*
8. Prime the pump by pressing the prime button.

WARNING: WATER WILL SHOOT OUT OF UNCONNECTED SANKEY HEAD DURING PRIMING.

Connecting the Keg and Starting the Wash Cycle

1. Connect the keg to Sankey head on Keg Washer.
2. Lift and place keg on supports of Keg Washer.
3. Hold the purge button to purge out any remaining liquid left in the keg.
4. Press the start button once for ½ BBL keg or twice for 1/6 BBL keg. A solid yellow light indicates a ½ BBL keg wash cycle is running. A blinking yellow light indicates a 1/6 BBL keg wash cycle is running. If you are washing a ¼ BBL keg, use this cycle, but be aware that increased gas pressure may be needed to ensure proper keg evacuation.

NOTE: THIS SELECTION CAN BE CHANGED MID-CYCLE UNTIL THE FINAL PURGE AND PRESSURIZE STEP.

Clean Up

1. Disconnect the keg coupler and gas connection.
2. Shut off the water supply, but keep the hose attached until draining is complete. If you choose to remove the hose before draining, be sure to plug the hose connection to avoid any leakage.
3. Attach the drain hose to the bottom of the washer, route the hose to the floor, and open the drain valve.
4. Hold the start button for 3 seconds to activate the drain operation.
5. Rinse tanks and allow the rinse water to flow through the plumbing and out of the bottom drain.
6. Disconnect water and control panel power. Allow to drain and dry, before properly storing.

WARNING: MAKE SURE THE WATER SUPPLY IS TURNED OFF OR DISCONNECTED BEFORE EVER ACTIVATING THE DRAIN FUNCTION. HIGH WATER PRESSURE BLASTING THROUGH OPEN PLUMBING WILL CAUSE DANGEROUS SPLASHING OF THE CHEMICALS IN THE TANKS. ALWAYS FOLLOW RECOMMENDED DOSAGE AND SAFETY INFORMATION FROM YOUR CHEMICAL SUPPLIER.

Recommended Cleaners

Our recommended supplier for all of your chemical needs is Chem Station. Chem Station is a chemical provider that can supply you with all of the necessary chemicals for your brewery. Chem Station also provides bulk tank filling at reduced costs. Sometimes it can be more convenient to order your chemicals from your brewing supply group such as BSG or CMG, however. Below you can find our recommended chemicals for each main cleaning category.

Caustic Cleaners

1. Chem Station - 50479 (CIP Caustic Cleaner, ECO-Blend) 120-180°F (2 oz. per gallon of water)
2. Chem Station - 50177 (CIP Caustic Cleaner XP-Blend) – Stronger concentration over 50479. 120 – 180°F (1 oz. per gallon of water)
3. Five Star – Powdered Brewery Wash (PBW) 130-180°F (1-2 oz. per gallon of water)
4. Five Star – Liquid Recirculation Cleaner 160-180°F (2 oz. per gallon of water)

Acid Cleaners

1. Chem Station - 9525 (CIP Nitric / Phosphoric Acid Cleaner) (1 oz. per gallon of water – use between 55-130°F)
2. Five Star – Acid #5 – 50 – 140°F (1 oz. per gallon of water)

Sanitizers

1. Chem Station - Perasan-A Peroxyacetic Acid Sanitizer (1 oz. per 5 gallons of water – use between 55-95°F)
2. Birko Chemicals– Birk-ox PAA : Peroxyacetic Acid Sanitizer (1 oz. per 5 gallons of water – use between 55-95°F)

Troubleshooting Solutions

Q: I'm not sure what all the selector switches do.

A: Air Purge: Setting the selector to "ON" will cause the unit to utilize compressed air instead of CO2 for all purging cycles prior to the sanitizing cycle. Setting the selector to "OFF" will utilize only CO2 for all portions of the cleaning cycle. Long Purge: Setting the selector to "ON" will add 5 seconds to every gas purge cycle. Long Sani: Setting the selector to "ON" double the sanitizer cycles and adds 5 seconds to the CO2 purge. Long wash: Setting the selector to "ON" will add 2 rinse cycles and 2 caustic cycles to the standard cycles as well as add 5 seconds to the first and second purges.

Q: I am seeing dirty caustic going into my sanitizer kettle. Why is that?

A: It is possible that the solenoid is stuck open on the sanitizer kettle return. One possible solution would be to disassemble and clean the sealing surfaces. If this does not solve the problem, you may need to replace the solenoid.

Q: I am seeing sanitizer returning into my caustic kettle. Why is that?

A: It is possible that the solenoid is stuck open on the caustic kettle return. One possible solution would be to disassemble and clean the sealing surfaces. If this does not solve the problem, you may need to replace the solenoid.

Q: During the final pressurization cycle, CO2 is coming out of the cycle drain and the keg isn't pressurized.

A: It is possible that the solenoid is stuck open on the keg drain. One possible solution would be to disassemble and clean the sealing surfaces. If this does not solve the problem, you may need to replace the solenoid.

Q: I don't hear my pump running. What should I do?

A: It is possible that the fuse in the control panel has blown, and needs replaced. Please contact support.

Q: My kegs are not fully purged at the end of the cycle. What should I do?

A: Verify that you have a HIGH FLOW CO2 installed. If you continue to have issues, increase the CO2 pressure 5 PSI at a time until optimal results are achieved. Do not exceed 60 PSI. Another possible issue is that the keg was not fully purged prior to starting the cycle.

Q: Do I need a special regulator?

A: It is imperative that you install a HIGH FLOW CO2 regulator.

Q: Do I need a special key to open the control panel?

A: The panel can be opened with a regular flat bladed screwdriver.

Q: I am seeing bubbles come up through the kettles (one or both) when I connect a keg. What should I do?

A: This situation requires a call to Blichmann Engineering support.

Q: How much Caustic and sanitizer should I be using per cycle?

A: A regular cycle on a ½ BBL keg will consume slightly less than ½ gallon of caustic and sanitizer. You can wash approximately 15 kegs before needing to refill the kettles.

Q: I just received my unit, plugged it in, and nothing is happening. What do I do?

A: Check that the emergency stop is not engaged. Give the knob a small turn clockwise to release.

Q: What is the ball valve that is under the unit for?

A: This is the system drain. It must remain closed during operation. Prior to pressing the drain button, connect a drain hose to this valve, then open the valve.

Blichmann Engineering Product Warranty

A. Limited Warranty

1. Blichmann Engineering warrants to the original purchaser that this product will be free from manufacturing defects in material and workmanship for a period of one (1) year from the date of purchase by the customer. Proof of purchase is required. Blichmann Engineering's obligation to repair or replace defective materials or workmanship is the sole obligation of Blichmann Engineering under this limited warranty.

2. This product is for home use only. The limited warranty covers only those defects that arise as a result of normal use of the product and does not cover any other problems, including, but not limited to, those that arise as a result of:

- a. Improper maintenance or modification;
- b. Damage due to incorrect voltage or improper wiring by customer;
- c. Operation outside of the product's specifications;
- d. Carelessness or neglect to operate the product in accordance with instructions provided with the product;
- e. Damaging the tamper label on the product;
- f. Damage by over-tightening the fasteners;
- g. Failure to follow cleaning and / or maintenance procedures; or
- h. Exceeding published operational temperatures.

3. Blichmann Engineering reserves the right to request delivery of the defective component for inspection before processing the warranty claim. If Blichmann Engineering receives, during the applicable warranty period, notice of a defect in any component that is covered by the warranty, Blichmann Engineering shall either repair or replace the defective component with a new or rebuilt component at Blichmann Engineering's option.

4. Blichmann Engineering must be notified within seven (7) days of the delivery date of any shipping damage. Customer is responsible for shipping damage outside of this time period. Approval for return must be provided by Blichmann Engineering prior to any return. Customer is responsible for keeping all original packaging material for warranty returns. Blichmann Engineering is not responsible for damage from improperly packaged warranty returns, and these repair costs will be the sole responsibility of the customer. Shipping costs for warranty returns are covered only for the contiguous United States.

5. Blichmann Engineering's limited warranty is valid in any country where the product is distributed.

B. Limitations of Warranty

1. Any implied warranty that is found to arise by way of state or federal law, including any implied warranty of merchantability or any implied warranty of fitness, is limited in duration to the terms of this limited warranty and is limited in scope of coverage to this warranty. Blichmann Engineering disclaims any express or implied warranty, including any implied warranty of fitness for a particular purpose or merchantability, on items excluded from coverage as set forth in this limited warranty.

2. Blichmann Engineering makes no warranty of any nature beyond that contained in this limited warranty. No one has authority to enlarge, amend, or modify this limited warranty, and Blichmann Engineering does not authorize anyone to create any other obligation for it regarding this product.

3. Blichmann Engineering is not responsible for any representation, promise, or warranty made by any independent dealer or other person beyond what is expressly stated in this limited warranty. Any selling or servicing dealer is not Blichmann Engineering's agent, but an independent entity.

C. Limitations of Liability

1. The remedies provided in this warranty are the customer's sole and exclusive remedies.

2. Except for the obligations specifically set forth in this warranty, in no event shall Blichmann Engineering be liable for direct, indirect, special, incidental, or consequential damages, whether based on contract, tort, or any other legal theory and whether or not advised of the possibility of such damages.

3. This warranty does not cover, and in no event shall Blichmann Engineering be liable for, travel, lodging, or any other expense incurred due to manufacturing defects in material and workmanship, or any other reason.

4. Any performance of repairs after the warranty coverage period has expired or performance of repairs regarding anything excluded from coverage after this limited warranty shall be considered good-will repairs and they will not alter the terms of this limited warranty, or extend any warranty coverage period.

5. Venue for any legal proceedings relating to or arising out of this warranty shall be in Tippecanoe County, Indiana, United States, which courts will have exclusive jurisdiction.

D. Local Law

1. This warranty gives the customer specific legal rights. The customer may also have other rights that vary from state to state in the United States or other countries.

2. To the extent that this warranty is inconsistent with local law, it shall be deemed modified, only to the extent necessary to be consistent with such local law.