BLICHMANN
ENGINEERING™

TOWER LTE™

Modular Controller Stand

Operation, Assembly & Maintenance

Congratulations on your purchase, and thank you for selecting the TOWER LTE™ Modular Brewing Control Stand from Blichmann Engineering™. We are confident that it will provide you years of service and many gallons of outstanding beer. This manual will familiarize you with the assembly, operation, and maintenance of the Tower LTE Modular Brewing Control Stand.
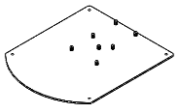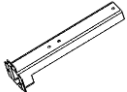
IMPORTANT!!
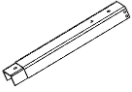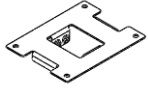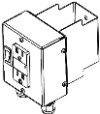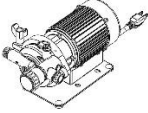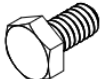
**** PLEASE READ THOROUGHLY PRIOR TO USE FOR IMPORTANT SAFETY INFORMATION ****

Warning: Sections labeled "Warning" can lead to serious injury or death if not followed. Please read these thoroughly 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. Do NOT at ANY time operate the product until you have thoroughly read and understood these instructions!

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" are critical to the proper performance and life of the product.

1
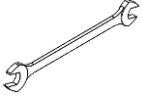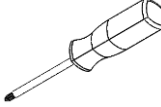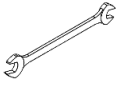
Assembly:

The Tower LTE Modular Brewing Control Stand is packaged unassembled to allow for more economical shipping. A list of components included with your Tower LTE follows as well as the basic tools required for assembly. Please carefully review the lists below to ensure you received all of the correct parts and have the required tools prior to assembly.

Parts List:

Item / *Part Number*		Quantity	Item / *Part Number*		Quantity
Base / *BE-000284-00*		1	Temperature Sensor Fitting / *BE-000268-00*		1
Lower Support / *BE-000285-00*		1	¼"-20 Screw with Knob / *BE-000379-00*		1
Upper Support / *BE-000286-00*		1	¼"-20 Acorn Nuts Stainless Steel		7
Controller Mounting Plate / *BE-000287-00*		1	Rubber Foot / *BE-000376-00*		4
GFCI Outlet Box with Switch/ *BE-000388-00*		1	#10-24 Acorn Nuts Stainless Steel		4
		1	#10-24 x 3/8" Pan Head Screws Stainless Steel		8
¼" Flat Washers Stainless Steel		7	RipTide™ Pump		1
¼"-20 x ½" Bolt Stainless Steel		2	¼"-20 x ½" Nut Stainless Steel		2

Required Tools:

7/16" Wrench x 2		#2 Phillips Screwdriver	
3/8" Wrench		Adjustable Wrench	
PTFE Thread Seal Tape			

*RipTide™ Pump included with *aTOP_Tower_LTE_P* models only.

2

Step One:

Install the four rubber feet in the four holes in the base using with the supplied #10-24 acorn nuts. Be sure to orient the rubber portion of the feet on the side of the base <u>without</u> threaded studs. Next, install the lower support on the threaded studs of the base indicated in Figure 1. Install and tighten three of the ¼"-20 acorn nuts and tighten. Last, install the upper support in the lower support and install and tighten the ¼"-20 screw with knob as shown in Figure 1.
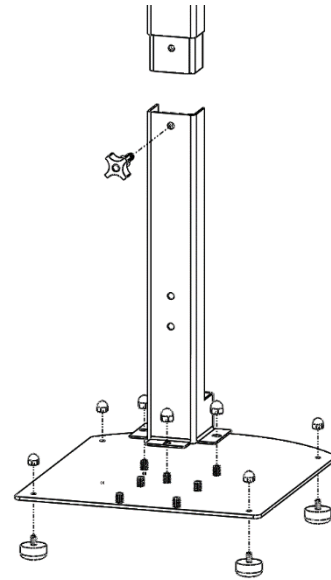
Figure 1

Step Two:

Install the GFCI outlet box with switch on the upper support. Slide the outlet box bracket over the upper support and line up the hole in the bracket with the holes in the upper support. Fasten the bracket to the support with the supplied ¼"-20 x ½" bolts and ¼"-20 nuts.
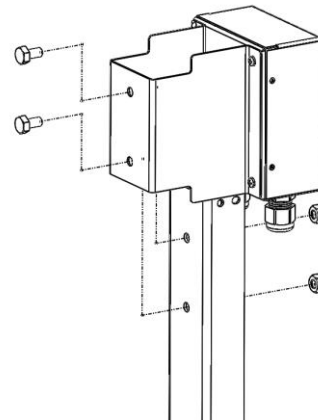
Figure 2

Step Three:

Important:
Install the Tower of Power-™ brewing control module on the controller mounting plate <u>first</u> using four of the supplied #10-24 screws!

After the brewing control module is attached to controller mounting plate, attach the mounting plate to the upper support with the remaining four #10-24 screws.
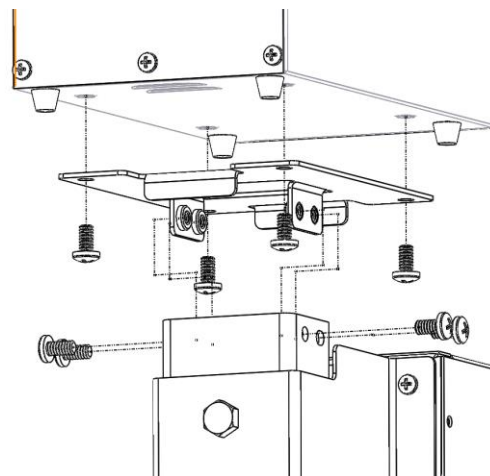
Figure 3

3

Step Four:

Important:
Be sure to install the pump with the pump head on the right-hand side of the Tower LTE assembly.

Install the pump with the supplied ¼"-20 acorn nuts as shown in Figure 4.

Figure 4

Step Five:

Important:
Remove the RipTide™ Pump head prior to installing the Temperature Sensor Fitting.
Caution:
Apply two to three wraps of PTFE thread seal tape to the male threads of the pump head outlet and install the Temperature Sensor Fitting on the linear flow valve. Hand tighten the fitting and use a wrench if necessary to orient the fitting as shown in Figure 5. DO NOT OVER TIGHTEN the temperature sensor fitting. Galling of stainless steel threads is not covered by your warranty. Install the temperature sensor as described in the manual.

Tower of Power controller

Figure 5

Note:

If using March or Chugger pump we recommend using a valve on the pump (part# aBall_valve_MXF_12NPT)

Note:

If installing the RipTide™ to the Tower of Power™ LTE you will need to cut the cord of the RipTide™ to 3 Feet. Strip the outer cover 1.5″ from the end to reveal 3 wires inside. Strip the green, white, and black wires 3/8″ from the end. (Figure 5a)
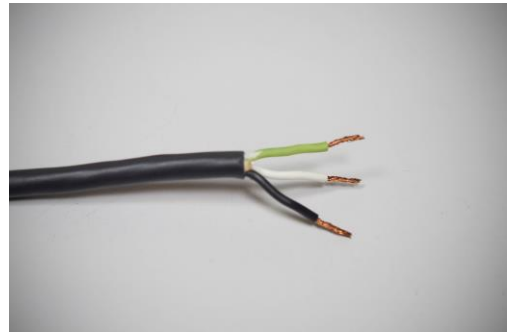
Figure 5a

Step Six:

Warning:
Before proceeding, make certain that the Tower LTE Modular Controller Stand and its accessories are unplugged and disconnected from any and all power sources! If you are unclear or uncomfortable with the proceeding wiring instructions, contact a licensed and qualified electrician for assistance. Incorrectly wiring the Tower LTE's GFCI Outlet Box with Switch and RipTide™ Pump can result in personal property damage, injury or death.

Remove the compression nut and seal from the cable gland as shown in Figure 6a. Remove the four screws, shown in Figure 6a, from the outlet box with switch. Remove the outlet box cover with GFCI receptacle from the Tower LTE assembly and allow it to hang.

Figure 6a

5
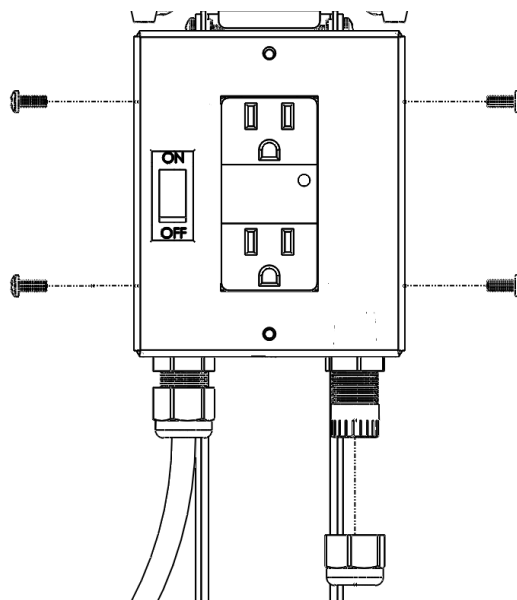
Slide the cable gland nut over the pump power cord and feed the power cord through the cable gland as shown in Figure 6b. Locate the black, white, and green wires with attached wire nuts labeled "Pump Wires".
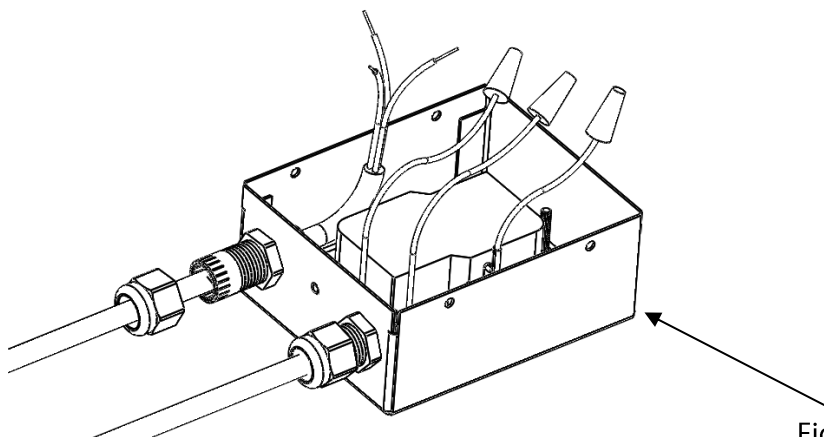
Figure 6b

Remove the wire nuts and connect each wire of the pump power cord to the matching color pump wire by twisting the conductors together clockwise. Reinstall the wire nuts to each pair of connected wires. See Figure 6c.

Connect pump power cord wire to matching color pump wire, twist conductors clockwise and reinstall wire nut.

Clockwise

Figure 6c

6
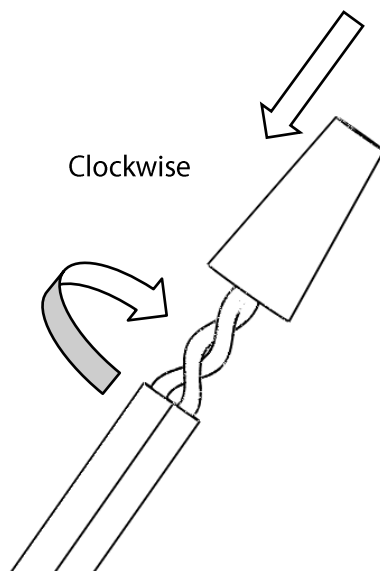
Tuck the connected wires back into the outlet box cover with GFCI receptacle. Reinstall the outlet box cover with GFCI receptacle onto the Tower LTE assembly being sure no wires caught between mating parts. Reinstall the four previously removed screws as shown in Figure 6d and reinstall the compression nut on the cable gland. Tighten the compression nut such that the pump power cord cannot be readily pulled out of the GFCI outlet box with switch.
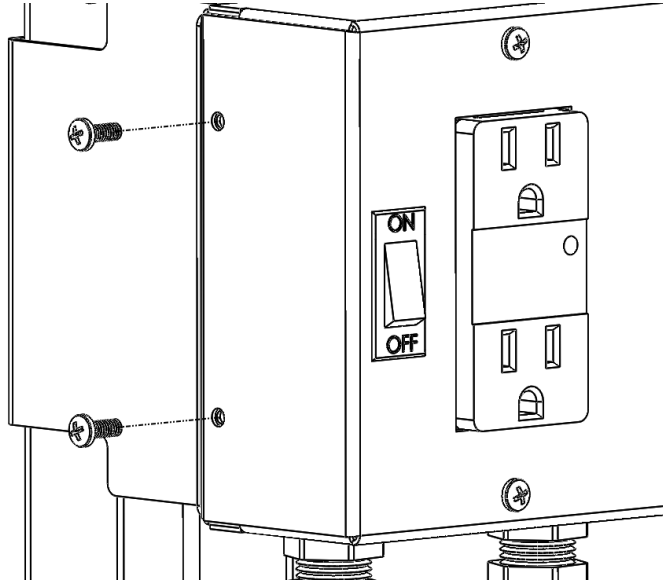
Figure 6d

Optional Accessories
Chiller and Bracket

Step One:
Install the chiller bracket with the two ¼"-20 x ½" bolts and nuts as shown in Figure Acc-1.

Figure Acc-1

Step Two:

Install the Therminator™ chiller to the Quick Release bracket and hook onto the mounting plate as shown in Figure Acc-2.
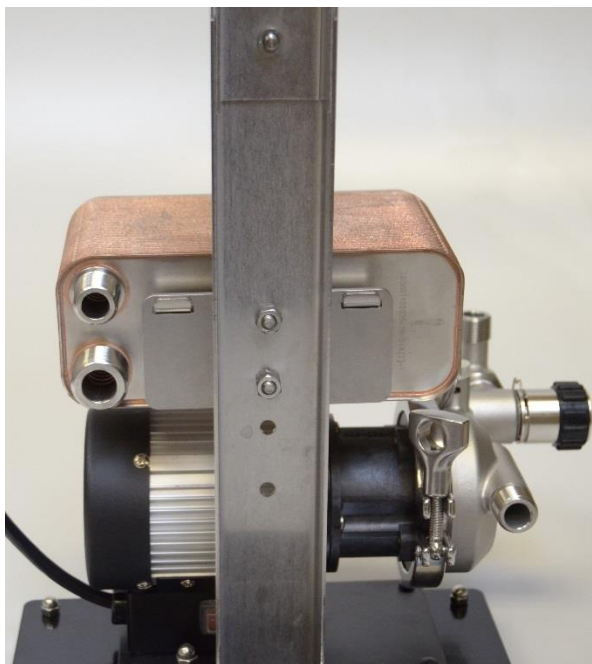
Figure Acc-2

Operation

Compact Configuration

The Tower LTE™ can be operated as assembled in the expanded configuration, or it can be collapsed to its compact configuration. The compact configuration is also convenient for storage between brewing sessions. The Tower LTE™ can be stowed away in a 20 gallon, or larger, BoilerMaker Brew Kettle when not in use.

To arrange the Tower LTE™ in its compact configuration, remove the ¼"-20 Screw with knob and separate the upper support from the lower support. Rotate the upper support with controller and GFCI outlet box with switch 180° as shown in Figure Op-1.
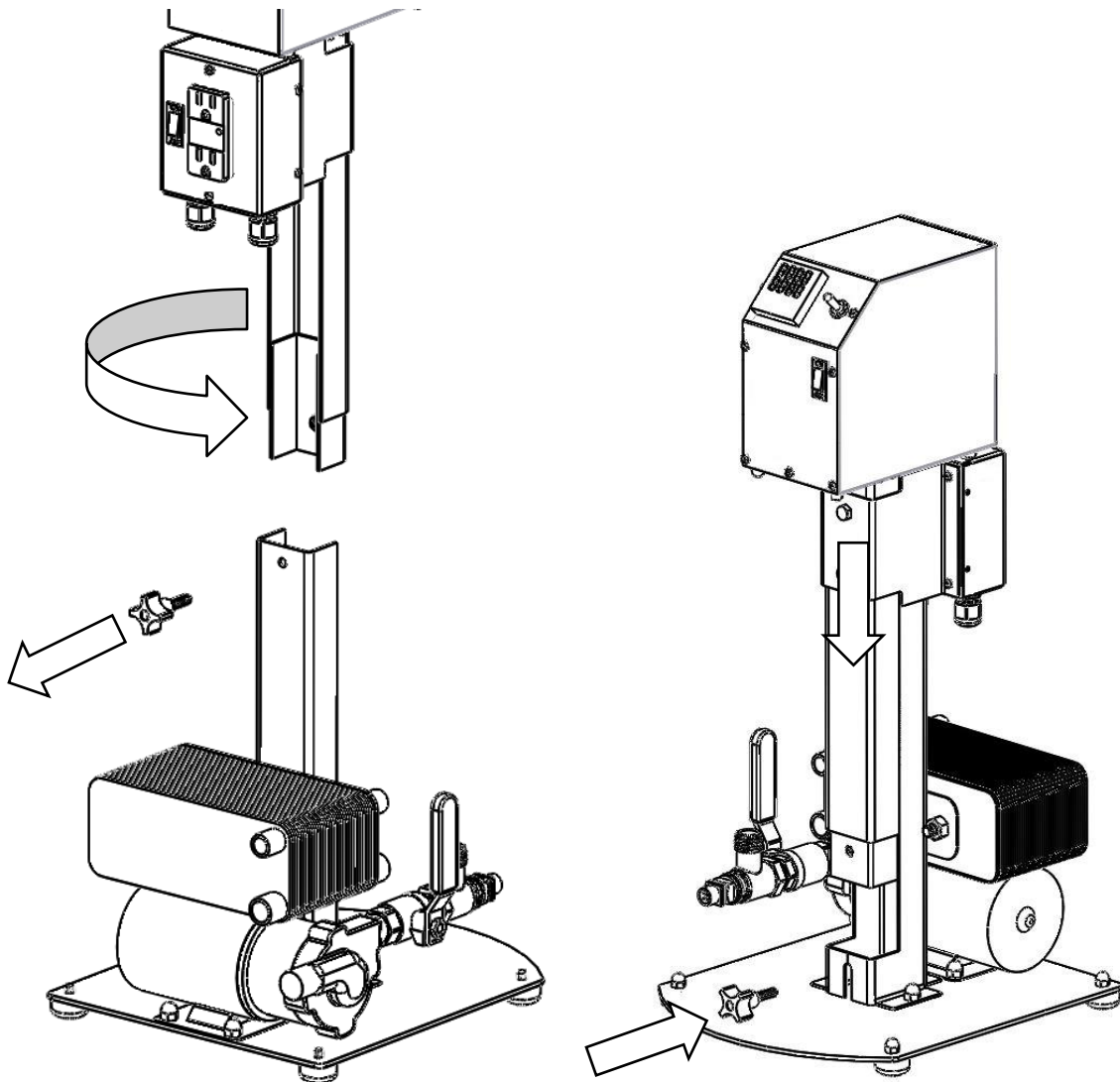
Figure Op-1

Pump operation

Important:
Operating the RipTide™ pump requires that the pump be located at the lowest point in your system. Locate the pump such that the bottom of the vessel supplying the pump is above the pump inlet.
Caution:
Failure to properly locate the pump can cause damage to the pump impeller and housing. Damage to the pump due to improper location or any other misuse is not cover by your warranty.

The RipTide™ pump installed on the Tower LTE can be used to circulate and transfer hot water or wort during your brew sessions, and the linear flow valve can be used to regulate the flow rate. Always control the flow rate on the outlet of the RipTide™ pump. Never restrict the inlet of the pump, this will result in poor performance and possible damage to your pump. (see Figure Op-2)
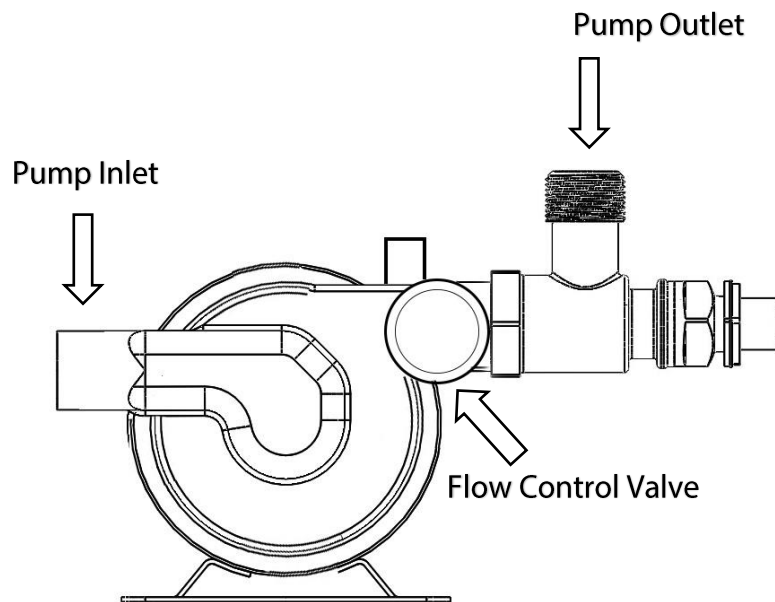
Figure Op-2

Maintenance

Cleaning

Important:
The Tower LTE™ Modular Controller Stand and accessories require routine maintenance after use. Before cleaning, unplug and disconnect the Tower LTE™ from any and all power sources.

Caution:
The Tower LTE™ Modular Controller Stand and the Tower of Power™ Brewing Controller can be cleaned with a damp cloth and mild detergent. Never spray the Tower of Power Brewing Controller directly with any liquid.

Caution:
NEVER submerge the temperature sensor in any liquids!

The RipTide™ pump head and temperature sensor fitting should be cleaned after each use with a cleaner such as Five Star Chemicals' PBW, following all manufacturer's instructions. Disassembly of the pump head and temperature sensor fitting is not necessary for every cleaning. PBW or similar cleaning solution, subsequent rinse water, and sanitizer, such as StarSan, can be recirculated to facilitate easier cleaning and sanitation of the Tower LTE Modular Controller Stand's plumbing, however, the pump head assembly and fittings should be disassembled, cleaned, and reassembled every five to six brew sessions. Refer to the RipTide™ manual for information on assembly and disassembly.

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 warrantee 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.

This product uses food grade materials anywhere the product touches the beverage.
Warning: This product contains or may contain chemical(s) known to the State of California to cause cancer, birth defects, or other reproductive harm.