



AutoSparge™

Operation, Assembly & Maintenance Manual

Congratulations on your purchase, and thank you for selecting the AutoSparge™ lauter tun level control 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 and use of the lauter tun level control.

**** PLEASE READ THOROUGHLY PRIOR TO USE FOR IMPORTANT SAFETY INFORMATION ****

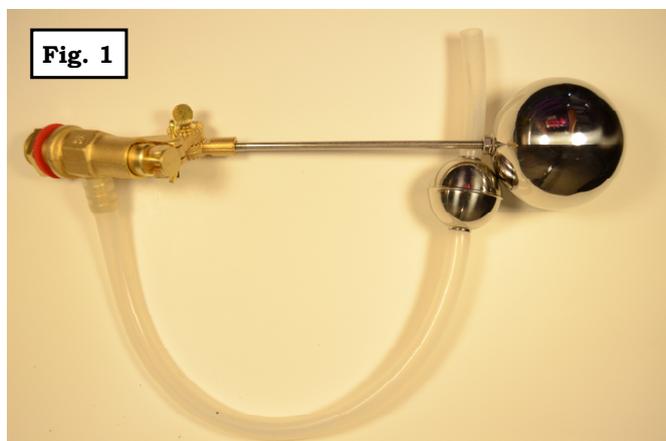
IMPORTANT !!

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.

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.

Assembly & Installation:

Ensure you have all the parts included in Fig. 1. This product is shipped disassembled. Please contact your Retailer if any parts are missing.



Installing the Float Ball



Pinch hose



Push hose in ball



Pull hose



Ready to use

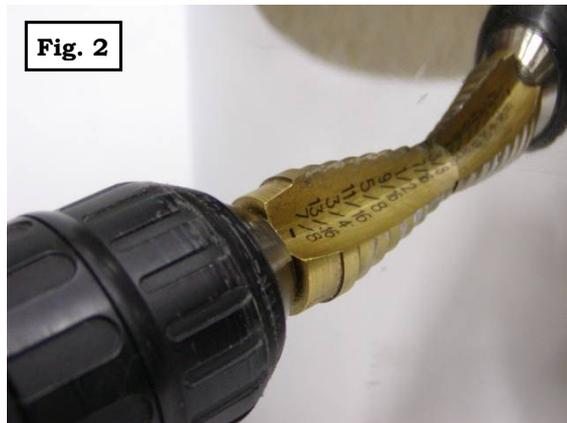
Installation Procedure

The AutoSpargetm can be installed in nearly any pot or cooler with a minimum of 12" of inside clearance for the float to move. Installation of the product in a brew pot merely requires a 13/16" mounting hole be drilled or punched in the pot. A 7/8" hole will also work, but is a bit on the big side.

Installation in a brew pot:

Blichmann Engineering offers a punching service for BoilerMaker™ pots for a nominal fee when purchased new from the factory. We do not punch other pots, or accept pots back to us for punching. We offer 6 different locations to accommodate your installation. See our web page for details.

To install in your pot, simply mark your desired location approximately 2" from the top lip of the pot and drill a 3/16 pilot hole. Then use a step drill and enlarge the hole to 13/16". Step drills are available through most hardware/home improvement centers or through McMaster.com (part# 8841A24 or 89315A42 for TiN coated). Step drills produce a perfectly round hole and are great for use in sheet metal. Alternately, a knockout punch (McMaster.com part 3449A999) can be used. Hole saws are another tool that can be used, however they produce a rougher hole and sometimes catch in sheet metal so are harder to use. Fig 2 shows a hole being drilled with a step drill. Note that the gasket goes on the INSIDE of the pot.



Installation into a cooler: is a bit more work, but is still a simple process.

(1) Drill a 1/4" pilot hole all the way through the cooler from the outside. It is important to drill completely through the cooler so all holes are concentric.



(2) Using a 2" to 2-1/4" hole saw, cut through the OUTER wall of the pot ONLY. DO NOT drill all the way through. This will allow clearance for your hose fittings.

TIP: Use the hole saw in REVERSE (counterclockwise) to prevent it from grabbing the plastic and sawing through too quickly.



(3) After drilling, remove the plug and foam. If desired, you can put a layer of silicone sealant on the foam to keep liquids from soaking into the foam insulation.



(4) Use a step drill and enlarge the pilot hole on the inside wall to 13/16".



(5) Install the AutoSparge™ as shown here. Tighten finger tight, and then rotate the valve assembly from the inside of the cooler while holding the nut still with your fingers to tighten it. Alternately, a 1-1/16" deep well socket wrench can be used to tighten the nut.



(6) This figure shows the AutoSparge™ installed in a 10 gal Rubbermaid cooler.



(7) At this time, install your preferred hose fitting. Shown here is a Blichmann Engineering QuickConnector™. But any 1/2" NPT connector will work.



This concludes the installation instructions for your AutoSparge™ lauter tun level control.

Operation:

The AutoSparge™ is elegantly simple to operate. It does not rely on complicated sprinkling systems that aerate the hot liquor and require constant monitoring to keep from overflowing or running dry.

The AutoSparge™, on the other hand, does the level monitoring for you automatically. It gently distributes the hot liquor over the grain bed while maintaining 1-2" of hot liquor over the grain bed at all times to reduce channeling (shunting) in the grain bed. The stainless ball simply floats on top of the liquid in your tun and as the level raises it closes a valve internal to the brass body and reduces the flow of water entering the tun. Conversely, if the level is lowering, it opens the valve letting it enter the tun at a faster rate.

Connect the hot liquor to the inlet of the AutoSparge™ (the ½" NPT end) via gravity feed or with a pump. Do not exceed 10 PSI to prevent leaking past the float valve. Fig 3 shows a typical gravity connection.

Caution: Make sure the valve on your tank or the pump is in the OFF position or the hot liquor will flow into your mash/lauter tun!



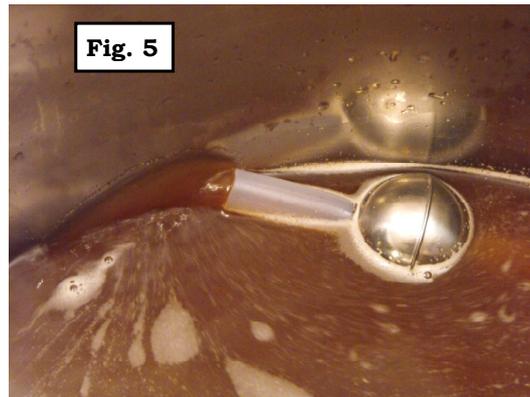
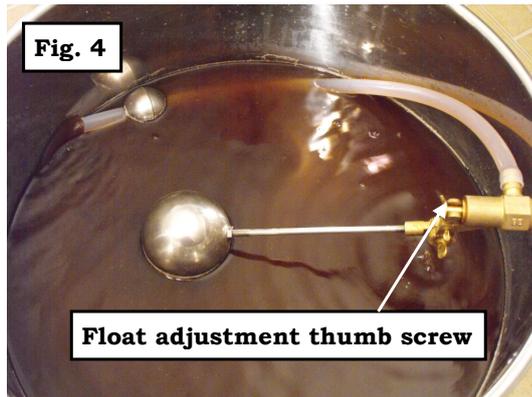
Prior to doughing in, loosen the adjustment knob thumb screw (see Fig 4) and move the float to the fully upward position and hang the hose on the outside of the pot so they aren't in your way while you add your grains. After filling your mash tun and doughing in your grains, use the adjustment knob to set the float position. Simply loosen the thumb screw and rotate the float arm to the desired position and tighten the screw finger tight. Lift up on the stainless float until it stops – this will be the liquid level control point will be where the float shuts off the flow (about the middle of the ball). If it is too high or would hit the lid of your pot, move it to a lower position.

Caution: If the stainless float ball hits the lid of your mash tun it will prevent the float from shutting off the flow and will overflow your pot!

Level adjustment: adjust the desired position of the liquid by loosening the thumbscrew and repositioning it using the teeth on the arm faces. It is not necessary to completely remove the screw and risk dropping it into the mash. If you cannot find an acceptable position you may remove the thumb screw completely and flip the float arm over using the set of teeth on the opposite side. They are rotated ½ tooth on each side to allow for adjustments in 7.5 deg increments.

Fig 4 shows the float during a mash. Note that in this pic the unit is being used in a RIMS system so wort may be flowing. Also note that the outlet hose with the foam float is simply laid on top of the grain bed where it will float and maintain a gently flow over the top of the mash. Fig 5 shows the flow during lauter. Note the gentle distribution of hot liquor over the grain bed.

Tip: while it is not very common due to the large passages in the valve, grain particles may, on occasion, get stuck. To clear them, simply press down on the ball momentarily with a spoon to fully open the valve and the flow will eject the grain particles.



Tip: We do recommend that you periodically rake the top 1/3 of the mash during lautering about every 15 min to maintain a smooth efficient lautering process. Raking the top of the mash will not disturb the lower part of the grain bed and the wort will remain clear throughout the lautering.

When you have finished your mash, simply turn on the hot liquor tank valve and/or pump to the full open position. Then open the mash/lautering tun valve to the desired wort drain rate. That's it! The AutoSparge™ will automatically let more hot liquor into the tun to compensate for the rate at which you're draining wort into your brew pot. Note that hot liquor may flow quickly at first until you reach the level control point and then the valve will slow the flow to match the drain rate. As you change the rate you're draining, the AutoSparge™ will automatically match it, maintaining a constant liquid level over your grain bed.

Caution: The AutoSparge™ is NOT intended for unattended operation or for use as an automated pot filler. City/well water pressure will NOT be shut off by the AutoSparge!! A max pressure of 10 PSI is allowed. This is plenty for most gravity and small magnetic drive pump installations.

Maintenance

Clean the AutoSparge™ with any brass/stainless compatible cleaner and allow to dry thoroughly. It is not necessary to remove the AutoSparge™ from the pot for cleaning, although removing the ball/arm assembly (remove the thumb screw) will make cleaning the inside of your mash/lautering tun easier.

Warranty

The AutoSparge™ is warranted to be free of defects in materials and workmanship for a period of 1yr from the date of purchase (proof of purchase required).

Specifically EXCLUDED from this warranty are normal wear and tear, damage from abuse and misuse, thread galling or breakage from over tightening.

Blichmann Engineering is not responsible for incidental or consequential damages or injury arising from use or misuse of this product.



Brew with a Champion!



The original Blichmann champions:
Dana, Nicole, and Julie

New! BOILERMAKER™ New!

Brew like a champion with a BoilerMaker™ brew pot! They feature an exclusive stepped bottom and an optional patent pending "button louver" false bottom (see graphic to right). Also available is an optional boil filter with guard (see graphic to left). Custom built with the home brewer in mind, these beautiful pots are constructed from heavy 18 gauge stainless steel and loaded with standard accessories including an adjustable angle BrewMometer, a glass level gauge with clean-out ports, and "snap-in" dip tube! The BoilerMaker™ is clearly in a class of its own.



For more information about our complete lineup of brewing products, please go to our web site

www.BlichmannEngineering.com