ENGINEERING BETTER BEER

Whirlpool Guide
INTRODUCTION

This quick reference guide is designed to inform users of the best practices for kettle whirlpooling. For those that are not familiar with kettle whirlpooling, this step is performed immediately post-boil. A loop is established between the kettle’s ball valve, a pump, and a fitting to quickly circulate hot wort in the kettle. This circular “whirlpool” action aggregates pellet hops and other break-material into a cone in the center of the vessel. This action, along with a trub dam, and fining agents insures that the clearest wort possible finds its way into the fermenter.

WARNING

The kettle whirlpool fitting was designed with a 180-degree spray pattern for maximum effectiveness, and should be fully submerged whenever in use to avoid splashing of hot liquids, scalding, or other injury. Furthermore, we recommend that the fitting be mounted and operated within the confines of the bottom 20% of total kettle volume. For example, examining a 15-gallon kettle, the whirlpool fitting should not be mounted higher than the 3-gallon level. This will insure that even when brewing relatively small batches in relation to total kettle volume, the fitting remains fully submerged.

Furthermore, owners of Ss Brew Kettles may use the thermometer port as a reasonable substitute for operating the whirlpool fitting in lieu of adding another dedicated whirlpool port to their kettle. Ss Brew Kettles owners should not under any circumstances attempt to use their kettle’s upper recirculation port for whirlpooling.
The fitting is secured to the kettle using ½” MPT threads, and will require a bulkhead for proper use. Users can source a generic bulkhead or utilize our ½” FPT Thermometer Bulkhead to attach the fitting to the kettle’s sidewall. This bulkhead is included in the Whirlpool Kit for Standard Kettle w/ Bulkhead.

1. Using our thermometer bulkhead, thread the whirlpool fitting into the female end of the bulkhead, using Teflon tape for a secure liquid tight connection.

2. If you are not utilizing the thermometer port on Ss Brew Kettles, drill a 22 mm hole in the bottom 20% of the kettle’s total volume. A 22mm hole saw is available on our website as part of the mash tun retrofit kit. Or users can source a hole saw or stepper bit separately. The whirlpool fitting can be attached to virtually any orientation on the kettle for added convenience.

3. Feed the threaded male end of the thermometer bulkhead through the interior of the kettle, making sure that the included red high-heat silicone o-ring is seated into the bulkhead’s o-ring groove and mates evenly with interior of the kettle’s sidewall. Align the whirlpool fitting and bulkhead so that the spray pattern moves evenly along one side of the kettle’s interior sidewall.

4. Instead of using the locknut included with the bulkhead, users should utilize a ½” FPT ball valve to restrict flow while the whirlpool fitting is not in use. Make sure that the PTFE (white plastic) o-ring is secured between the kettle’s exterior sidewall and the ball valve.

5. You may attach a quick disconnect fitting or hose barb to the whirlpool fitting’s ball valve to ultimately make the connection to your pump. Please insure that all hose connections are secured with hose clamps.
Ss BREW KETTLE + WHIRLPOOL FITTING

- Use hose clamps on all barb fittings
- Use Teflon tape on all threaded fittings

**NOTE**
SETUP

We have designed the BME kettle to accept modular TC fittings to divert the flow of wort and create a uniform whirlpool and trub cone. Equipment configurations can vary, so we will offer two examples of establishing a correct whirlpool recirculation loop.

In the first option, the recirculation loop will be left in place without a ball valve during the length of the boil, this setup is ideal for users with a dedicated brew kettle pump and wants to avoid tying up the use of the kettle’s main sight glass ball valve. A whirlpool tee fitting, TC thermometer, ½” silicone tubing, hose clamps, and ½” TC barb fitting will be required for the install to work correctly.

1. Begin by installing the optional whirlpool tee fitting at the thermometer port location, and then install the TC thermometer opposite the port location, so that the thermoprobe extends into the kettle.

2. Then attach a length of ½” silicone tubing from the whirlpool tee fitting barb to the inlet of the pump.

3. Lastly, run a length of ½” silicone tubing from the pump’s outlet to the ½” TC barb fitting and secure that to the kettle’s tangential inlet.

Once installed, this method allows for the wort to be picked up from either the thermometer port and recirculate through the kettles integrated tangential whirlpool port. The big difference the whirlpool tee makes is it frees up your bottom valve on the kettle by using the thermometer port while still using the TC thermometer.
**NOTE**

- Use hose clamps on all barb fittings.
- Use Teflon tape on all threaded fittings.


**SETUP**

In the second option, the recirculation loop will utilize two valves to control the flow of hot wort from the kettle. This setup is ideal for users utilizing a single pump for their entire brewhouse. This setup also allows the user to install the recirculation loop temporarily post boil. A $\frac{1}{2}''$ 3-piece TC ball valve, $\frac{1}{2}''$ ID silicone tubing, hose clamps, and $\frac{1}{2}''$ barb fittings will be required for the install to work correctly.

1. Begin by running a length of $\frac{1}{2}''$ ID silicone tubing from the kettle’s primary $\frac{1}{2}''$ TC sight glass ball valve to the pump’s inlet.

2. Then install the second $\frac{1}{2}''$ 3-piece TC ball valve at the tangential inlet location.

3. Lastly, run another length of $\frac{1}{2}''$ silicone tubing from the outlet of the pump to the newly installed tangential inlet ball valve.

Once installed, this method allows for the wort to be picked up from the main ball valve, and recirculate through the kettles integrated tangential whirlpool port.
USE HOSE CLAMPS ON ALL BARB FITTINGS
USE TEFLOM TAPE ON ALL THREADED FITTINGS


**SETUP**

This setup allows the user to install the recirculation loop temporarily post boil. The main ½" 3-piece TC ball valve, ½” ID silicone tubing, hose clamps, and ½” barb fittings and TC Whirlpool valve will be required for the install to work correctly.

1. Begin by running a length of ½” ID silicone tubing from the kettle’s primary ½” TC ball valve to the pump’s inlet.

2. Then install the second ½” 3-piece TC ball valve at the center TC port location.

3. Lastly, run another length of ½” silicone tubing from the outlet of the pump to the newly installed TC Whirlpool ball valve.

Once installed, this method allows for the wort to be picked up from the main ball valve, and recirculate through the kettle’s central whirlpool port.
Ss TC BREW KETTLE / eKETTLE + TC WHIRLPOOL VALVE

- USE HOSE CLAMPS ON ALL BARB FITTINGS
- USE TEFLOTAPE ON ALL THREADED FITTINGS

NOTE