READ CAREFULLY AND SAVE FOR FUTURE REFERENCE

SAFETY

This appliance is not intended for use by persons (including children) with reduced physical, sensory, or mental capabilities.

- Keep away from Children.
- This appliance should not be left unattended during operation.
- The appliance should be operated on a flat stable surface, NEVER on an incline.
- The unit must be plugged into a GFCI protected plug.
- Do not move when hot to prevent scalding.
- Do not run the pump without the recirculation arm attached. Doing so can cause scalding! Keep the blue handle closed when the recirculation arm is removed.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similar qualified persons in order to avoid a hazard.
- **DO NOT IMMERSE IN WATER** - The base of the unit is not waterproof and should not be immersed for cleaning. This appliance is intended for home use only, and is not designed for commercial use.

Mashing, Sparging, and Boiling

BATCH SIZE: You can make either a 2½ gallon or 5 gallon batch in the Mash & Boil.

STRIKE WATER CALCULATION: You will first need to calculate your strike water. Use .30 gallons of water for every pound of grain, with a minimum amount of 2 gallons, regardless of batch size.

Examples:

2½ GALLON BATCH WITH 5 POUNDS OF CRUSHED GRAIN: Instead of using (5 × .3) gallons to calculate strike water which would be 1.5 gallons, use 2 gallons which is the minimum.

5 GALLON BATCH WITH 11 POUNDS OF CRUSHED GRAIN: Use (11 × .3) which is 3.3 gallons of strike water.

5 GALLON BATCH WITH 16 POUNDS OF CRUSHED GRAIN: Use (16 × .3) which is 4.8 gallons of strike water (16 pounds is maximum capacity).

STEP 1: Calculate your strike water for your batch and add to the Mash & Boil. Insert the Sparging Basket and cover with lid. Plug in the unit, set for 1600 W, and turn ON. Now press ON/OFF on the digital control, and press SET. The default strike water temperature of 162° will flash. To change this, press the + or – buttons, otherwise, press SET to agree to this strike temperature (which results in a mash temperature of 152° to 154° F.).

STEP 2: After setting the runtime, the TIMER value of 0:00 will flash. This means the unit will turn on as soon as you press SET again as you have not entered a delayed start time.

If you want to delay the start of the unit, enter the number of hours you want to wait before the unit starts (enter 1 to 23 hours in whole hours only). For example, if you want the unit to start 8 hours from now, enter a value of 8.

STEP 3: To agree to this and start the heating cycle for the strike water (or TIMER countdown), press SET again to start the strike water heat cycle.

STEP 4: Once the strike water has reached the target temperature of 162° F., open the lid and start mixing in the crushed grain with a long spoon. Mix in thoroughly for even heat distribution until the mash develops a porridge like consistency. If you find the mash is a little dry, pour a half gallon of strike water from the bottom valve and mix it into the top of the mash. Now with the lid removed, change the set temperature to 152° F (down from 162° F.), by following the instructions in step 1.

STEP 5: Now attach the recirculation arm and the short piece of silicone tubing to its barbed end. With the blue handled valve all the way open (vertical) turn on the **PUMP** switch on the side of the unit to start the pump. You will need to use the valve to adjust the flow of recirculation so the unit maintains about an inch of water above the grain bed during the 1 hour mash.

Too much flow, and the unit will run dry (you will hear a sucking sound) and too little, and the needed 1" of liquid above the grain will not be maintained. You will have to play around with the valve adjustment a bit to maintain about an inch of water above the grain bed as every mash is different.

If your mash clogs, and is not flowing well enough for the pump to function, you either have too fine a crush of the grain in the mash, or too large a percentage of gummy starches like flaked grains. Turn off the pump and put on the lid, and let mash without recirculation if this happens. Wait 1 hour for mashing to complete (but start preparing your sparge water now, see below).

SPARGE WATER CALCULATION: You will need to calculate the amount of hot 168° F. sparge water you will need at the end of the 1 hour mash. Use your strike water calculation

amount and multiply by .75 to get the amount of sparge water needed.

Examples:

2½ GALLON BATCH WITH 5 POUNDS OF CRUSHED GRAIN: 2 gallons of strike water multiplied by .75 = 1½ gallons of sparge water needed.

5 GALLON BATCH WITH 11 POUNDS OF CRUSHED GRAIN: Multiply your 3.3 gallons of strike water by .75 to get 2.48 gallons needed.

5 GALLON BATCH WITH 16 POUNDS OF CRUSHED GRAIN: Multiply your 4.8 gallons of strike water by .75 to get 3.6 gallons needed.

STEP 6: Prepare your sparge water. Heat the calculated amount of water in a separate vessel to 168° F., so it will be ready for use at the end of the 1 hour mash period. It is okay to mash for longer than 1 hour if your sparge water is not quite ready yet.

STEP 7: Time to sparge. Now unscrew and detach the recirculation arm and and pull the mashing basket straight up, and then twist to set it on the upper wire support. Change the set temperature to 218° F. by following the instructions in step 1 to boil.

STEP 8: While the temperature is rising, the malt sugar is dripping into your Mash & Boil from the Sparging Basket.

SPARGING

Add a gallon of 168° F. sparge water at a time to the top of the basket, until the 5½ gallon mark is reached. It is helpful to use a flashlight and shine it straight down the wall to make the inner gallon markers more visible. Keep doing this until you have 5½ to 5¾ gallons, and then lift the Sparging Basket off. If you have calculated your mash and sparge

water correctly, you should be very close to 5½ gallons when sparging is completed.

Note: If your mash clogged during recirculation, the above step will be difficult. You can make it a little easier to scraping the bottom of the mash basket through the grain with a long rigid object like a metal spoon, to let the sparge water out.

STEP 9: Boiling will be reached in about 50 minutes. Boil for 1 hour, adding hops and brewing your usual way. **Do not run the pump during the boil.** Consider using a hop spider if you intend on pumping through a wort chiller at the end of the boil.

STEP 10: After the boil, use the chiller of your choice to chill the wort. Once cool, pour into your designated fermenter. We recommend using the valve rather than using the pump to pump out, as the pump can sometimes clog on heavy hop particles after the boil.

WARNING: Never use the pump when whole hops are in the boil, as they will clog the pump impeller.

CLEANING THE UNIT

Always unplug before initial cleaning. Clean your Mash & Boil interior with a scrub sponge and then rinse with water.

Now plug it back in and add a gallon of clean water. Reattach the recirculation arm and run the pump for a few seconds until the water runs clear. Now unplug the unit, remove the recirculation arm, and leave the unit upside down to drain and dry between uses.

ERROR CODES & THE RESET BUTTON:

ER3: Run dry protection. If this happens first unplug. Now press the reset button on the bottom of the unit, fill with water and plug back in.

ER4: Thermostat overheating protection. This can happen when the heating element and thermostat are covered by a hop or grain bag, trapping the high heat of the element in a small area right next to the thermostat. It can also be caused by heavy trub deposits resulting from too fine a grain crush, or malt extract or honey being poured into the unit, coating the thermostat and the heat element. Reset by unplugging, and pressing the reset button on the bottom center of the unit.

ER5: Too high a temperature. Unplug and let cool before pressing reset.

2 YEAR WARRANTY & SERVICE
(do not return to store!)

The Mash & Boil with Pump features a **TWO YEAR** warranty from date of purchase provided by Brewer's Edge®.

Proof of purchase in the form of a receipt for store or online purchase is required for warranty service. Call **510-470-4767** or email **info@brewersedge.com** with a copy of your sales record for warranty service information.

You can also go to **brewersedge.com** for warranty information and the latest tips on use.

brewersedge.com

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