

## How to brew on our 5 Gal Brew Kit.

We are pleased to introduce our new Brew Kits for those home brewers either looking at getting started with the hobby or are interested in an all-inclusive upgrade to an existing system. We have hand picked each core product and accessory to work seamlessly together.

Our 5 ( US ) gallon Brew Kit simply requires gravity and a burner to function. For gravity, there are several third parties that manufacture 3-tier brew stands available on the market, or the user can build or fashion a solution independently. Furthermore, burners are also widely available and run the entire gambit of price and performance, however, we recommend a banjo style burner with ball valve heat shield for best results.

Since each core product has extensive information contained in the individual quick start guides on setup and use, we will walk you through an average brew day to demonstrate how the system is designed to work together.

Once all of the components are unpacked, cleaned, and ready for use.

1. Begin by performing your volume calculations for your recipe's grist composition and weight. Then fill the kettle with the required strike water volume. Finally, heat to the desired strike temperature, using the included kettle thermometer to monitor temperature. Once heated some users may find it useful to preheat their mash tun before mashing in. Others that are familiar with our insulated vessels can increase their strike water temperature by a nominal amount to account for initial insulated vessel related heat loss. Finally, transfer your strike water from the kettle to your mash tun, and then mash in by adding your grain. Stir your mash thoroughly and then set aside for the duration of your mash rest on the middle tier of your gravity setup.

2. Next, fill your kettle back up with your desired sparge water volume. While your mash is resting, heat your strike water to the desired temperature in your kettle, again using the kettle thermometer to monitor temperature. Once heated some users may find it useful to preheat their Hot Liquor Tank before adding their sparge water.

Others that are familiar with our insulated vessels can increase the sparge water temperature by a nominal amount to account for initial insulated vessel related heat loss. Once heated, transfer your sparge water to your hot liquor tank, and place the vessel on the upper tier of your gravity setup. Take care to make sure you have a few feet of height delta between the hot liquor tank and mash tun to encourage the proper flow of sparge water.

3. Next, situate your kettle and burner so it is at the lowest possible tier in your gravity setup. Once your desired mash rest duration has been reached. Go ahead and Vorlauf 3-5 times using any heat safe, food grade container, carefully pouring the wort back into the top of the mash tun so it does not

disturb the grain bed. Once wort becomes clear through the mash tun's ball valve, go ahead and run your 1/2" ID tubing from the mash tun into your boil kettle, and install the sparge arm on the mash tun and run the included 3/8" ID tubing from the hot liquor tank to the sparge arm. Start to slowly runoff from the mash tun to the boil kettle. Then begin your sparge, paying close attention to match the flow rate of the run off from the mash tun.

4. Once you have transferred the first 1/3 of your total runoff volume, go ahead and start the burner to begin bringing the wort to a boil. Once at a boil, follow your recipe's hop additions and boil durations. Perform a brief whirlpool by stirring your kettle vigorously, or use kettle finings to create a uniform trub pile in the center of the kettle.

5. Next, move your cleaned and sanitized BME Chronical 7Gal vessel near your kettle. Take care to move your kettle to the middle gravity tier, making sure the kettle bottom is above the top of the Chronical, you are now done with the burner. Be very careful, your kettle will be extremely hot.

Install the included 1.5" TC to 1/2" barb on the Chronical's lower most dump valve. Run a length of 1/2" tubing from the kettle's ball valve to the Chronical's 1/2" barb. Install the lid and blow-off cane, to avoid any sort of contamination. Although we recommend you clean and sanitize the vessel and related tubing, transferring hot wort will also work to sanitize any areas that come into contact with hot wort. Finally, transfer your hot wort into your Chronical.

6. Move your Chronical into your fermentation area and hook up the included FTS's controller. Finally, we recommend using an ice bath to cool your wort down to your yeast's ideal pitch temp using the Chronical's included chiller coil. Fill your insulated Hot Liquor Tank or a cooler with ice and water, and submerge the included FTSs pump. This allows the system to run, cooling your wort. Once you reach the desired pitch temp, you can either vigorously move your Chronical from side to side to aerate your wort prior to pitching yeast, or you can use one of the widely available wort oxygenation kits on the market. Finally, briefly remove the blow off cane to pitch your yeast, then reinstall the blow-off cane and rig a blow off using a small piece of the 1/2" ID tubing attached to the end of the blow-off cane. Double check that the set temperature on your FTSs controller is within the ideal temp range for the yeast strain you are using. Then refresh the ice bath or setup a new ice bath using a cooler. Check the ice bath periodically to ensure there is ample chill water for the fermenter to allow the FTS's system to maintain temps.

7. After fermentation slows (roughly 24-48 hours into primary fermentation), attach the 1.5" TC to 1" barb to the lower dump valve. Then dump any yeast and trub from the bottom valve into any container for disposal. Throughout fermentation, you may take gravity readings from the sampling valve on the upper part of your Chronical's cone. Finally, once fermentation is complete, detach the Chronical from the FTS's kit, and move to an elevated position. At this point, you can either bottle or keg from the racking valve. Remember that

the racking arm is rotatable, so you can adjust that on the fly during transfer to avoid trub pickup.

8. Most importantly, once your beer is ready to consume, enjoy!