HOMEBREW STARTER KIT

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Brewmaster
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Congratulations on the purchase of your Brewmaster Homebrew Starter Kit! You've taken the first step on the amazing journey of beer brewing. Read on to see for yourself just how easy it is—we bet you'll be a certified Brewmaster in no time!

Questions?

Our friendly staff are ready to help! Give us a call at 800-288-8922 or email us 24/7 at info@brewmasterwholesale.com

BREW DAY

The brewing process entails steeping grains, diluting malt extract, and boiling hops. At the end of Brew Day you will have made wort (pronounced "wurt"), which is the brewer's name for pre-fermented beer.

Getting Ready

Open your Recipe Kit and review the recipe sheet, noting the order and times of the hop additions. We recommend that when you start your boil time, you do the math right then and write down what time to add your hops. Review any tips or additional information found on your Recipe Sheet.

Then gather the following items together:

- Ingredients from your Recipe kit*
- Yeast (if using liquid brewer's yeast, remove it from the fridge at the start of your brew day)*
- Brewing Kettle (3-5 gallons (12-19 L) for Partial Boil, or 6-8 gallons (23-30 L) for Full Boil)*
- Mesh Bags for steeping grain and (optionally) hop additions
- Thermometer
- Wort Chiller or About 10 lb Ice*
- Fermentation Bucket and lid
- Airlock w/ Stopper
- Large Mixing Spoon
- Vinyl Transfer Tubing
- Sanitizer
- Scissors*
- Hydrometer & Hydrometer Jar
- 6 gal bucket for sanitizer

**Not included in equipment kit*

LET'S BREW!

1. Collect Water

Fill your kettle with 2.5-3 gal (9.5-11.5 L) of water for the Partial Boil method, or 5.5-6 gal (21-23 L) for Full Boil. Use clean, good-tasting water. If you buy bottled water to drink, that's what you should use for brewing. Place the filled kettle on your heat source and turn it to HIGH.

2. Add the Steeping Grains

Pour the steeping grains from your recipe (if included) into one of the 8"x15" mesh bags. Tie the bag closed

SANITATION IS THE KEY TO GREAT BEER!

Great beer starts with great sanitation practices. Consistent, good flavor comes when the yeast that we select to perform the fermentation are the only organisms present. Wild yeasts & bacteria can also perform fermentations, usually with undesirable results. So, from the moment the boiling portion of the brewing day is over, until the beer hits your pint glass, everything that touches it needs to be sanitized!

Making & Using Sanitizer:

1. Fill your sanitizer bucket with water to the 5 gallon mark. Measure 1 oz (30 mL) of Star San concentrate and add it to the bucket, stirring it up with your mixing spoon. The sanitizer will foam up some, which is completely normal.
2. Star San requires 1 minute of contact time to effectively kill any bacteria or yeast present.
3. You cannot sanitize dirt! Be sure your equipment is clean prior to sanitizing.
4. If agitated (shaken, for example) Star San will foam up. This foam has the same sanitizing power as the liquid form.
5. There's no need to rinse the sanitizer off of any of the equipment before use. (It's 100% safe, we promise!)

and place it in the heating water. It's wise to tie one end of the bag's drawstring to the kettle's handle or to a wooden spoon resting on one side of the kettle's rim.

3. Steep Grains

Steep the grains for 30 minutes. During this time, use your thermometer to monitor the temperature of the water as it heats. If the water reaches 170° F (76° C) before the grains have been steeping for 30 minutes, turn off the heat and allow them to finish the steeping period. Once done, remove the mesh bag. You can let the absorbed liquid drain out but do not squeeze the bag. Continue heating the water until it reaches boiling.

4. Add Malt Extract

Once the water boils, turn off the heat and add the malt extract included with your recipe. Whether it is powdered or syrup extract, add it slowly, taking care to stir enough to dissolve it completely. Any extract that does not get stirred in can burn on the bottom of the kettle and impact your beer's flavor. Once all the extract is dissolved into your brewing water, turn the heat back on and bring the water to a boil once again.

*****Note:**** *If your recipe kit included a small bag of corn sugar for bottling, do not add that at this time.*

5. The Hot Break

As the liquid nears boiling again, you will start to see a lot of foam forming on the surface. It will start slowly and then just before you reach boiling temps a large volume of foam will form very rapidly. This is called the hot break, and is caused by proteins from the grain and extract coagulating and coming out of solution. To keep from boiling over and making a mess, be prepared to turn the heat down or even off if necessary when the foam starts building rapidly. Once the foaming subsides take note of the time and begin your boil timer. Adjust the heat so that you have a gently rolling boil. **DO NOT** cover the kettle.

6. Add Bittering Hops

Most beer recipes call for a 1 hour boil, starting at the end of the hot break, and the hops that will give your beer its bitterness are added at the beginning of this 60 minute period. Some recipes differ from this, so refer to your recipe sheet to verify the total boil time and when the bittering hops should be added. Traditionally, all kettle addition times are given in terms of minutes remaining in the boil, and your recipe should say so specifically if it differs from this.

7. Make Some Sanitizer

At this point you should have some down time while the liquid is boiling and before the next kettle addition. It's a great opportunity to get your sanitizer made and the equipment you'll need at the end of the boil all sanitized and ready to be in contact with the wort. Mix a batch of sanitizer as directed in the Sanitation sidebar. Place your fermenter's spigot in the sanitizer for 1 minute, then install it in the bottom of the fermenter. Dunk a rag or sponge in the samitizer and use it to wipe down the interior of your fermenter, taking care to wet the entire interior surface, and set it aside to let the sanitizer work for 1 minute. Place the rest of the equipment that you'll use today, except the Hydrometer, Hydrometer Jar, and Liquid Crystal Thermometer, in the sanitizer to let it soak until you need it. Finally, drain the fermenter back into the sanitizer bucket and allow it to rest upside down in the mouth of the bucket until after you've cooled the wort.

8. Set Up the Wort Chiller (Full Boil Method Only)

Place the wort chiller into your kettle with 20 minutes remaining in the boil. Be sure to connect the chiller's hose to your water source and direct the open end somewhere safe, as if there is any water left inside the chiller from a previous batch it will soon boil and escape. If you're using a sink for the water source, unthread the faucet's aerator and install the Sink Faucet Adapter in it's place, converting the sink's outlet to

garden hose threads which will connect to the chiller's inlet hose.

9. Other Boil Additions

Whirfloc, Irish Moss, or Kick tablets are all seaweed-derived clarifiers that are commonly used in homebrewing. If your recipe calls for any of them, they should be added with 5 minutes remaining in the boil.

***Note:** Your recipe may have other ingredients that it calls for adding late in the boil or at the end (called flameout additions)–make these additions as instructed.*

10. Chill the Wort

Once you reach the end of the boil, you will need to cool the liquid (now called wort) to a temperature where it will be safe to add the yeast. Start by turning off the heat and covering the kettle.

For Partial Boil Method

First, add 2 gal of cold water to your fermenter. Next, plug the drain in your kitchen sink and add fill it to about 1/3 full. Transfer your kettle from the stove to the sink, and add 6-10 lb of ice to the water--as much as will fit while keeping the water line below the rim of your kettle. Once the wort reaches 130F (55C) it is ready to transfer to the fermenter, where the cold water will equalize the temperature of the wort so that the yeast can be safely added.

For Full Boil Method

Once you have turned off the heat, slowly turn on the water supply to the wort chiller until you reach a slow but steady stream coming out of the chiller. Be very careful! For the first 10 minutes or so the water exiting the chiller will be extremely hot and can easily burn you. Run the chiller until the hottest part of the kettle's exterior (usually right at the top) is pleasantly warm to the touch, and not hot.

Reminder, from this point on everything that touches your wort or beer MUST be sanitized

11. Transfer Wort to Your Fermenter

Install the vinyl transfer tubing from your kit to the spigot on the kettle and direct the open end into your Fermonster fermenter. Ensure the Fermonster's spigot is closed, then open the kettle's valve and transfer your wort. If necessary, add water to bring the total wort volume to 5 gal (Partial Boil). Fill the airlock about halfway with sanitizer and insert it into the rubber stopper, and insert this whole assembly into the fermenter's lid. Screw the lid onto the Fermonster to seal it.

12. Measure the Sugars

Open the spigot valve at the bottom of the fermenter and transfer a small amount of the wort to your Hydrometer Jar, and re-seal the fermenter. Holding the hydrometer jar over your sink, gently drop the hydrometer into the jar. Let it come to rest and then note the Specific Gravity on the recipe sheet or in your beer log.

***Tip:** If this is the first time you've taken a hydrometer sample, start by filling the jar to within 1/2" of the top, and after you've taken the measurement gently remove the hydrometer, leaving the wort in the jar. Mark the level of the wort in your jar with a Sharpie and now you have a fill line for future use!*

13. Add the Yeast

Use the sanitized scissors to cut open the yeast packet, then open the fermenter and pour the yeast into the wort, observing any instructions on the yeast's packaging. In brewing, adding the yeast is called pitching. Place the fermenter somewhere out of direct light and with as steady as possible of a temperature around 68° F (20° C) for fermentation.

14. Fit the Lid & Fermentation Thermometer

Rip the tear-strip off the fermenter lid. Use a rag or sponge to wipe down the lid with sanitizer and fit it to your fermentation bucket. Fill your airlock to the line with samitizer and press it into the stopper, then insert the stopper in the hole in the fermenter's lid.

Wipe the outside of the bucket dry with a towel and select a spot around the middle of the bucket wall to attach the Fermometer. Peel off the adhesive backing and affix the Fermometer to the bucket.

FERMENTATION

Fermentation is the process by which the yeast consume the sugars present in the wort and convert them to alcohol and carbon dioxide (CO_2). The presence of the alcohol is what turns your wort into beer and the CO_2 being released will make your airlock dance the whole time!

1. Fermentation Starts

You should see the first signs of fermentation within a day or two... or three. It varies because yeast is a living organism and doesn't behave exactly the same every time.

2. Fermentation Continues

As the yeast begin to work you'll see bubbles form on the surface of the wort, and soon afterwards you'll start to see the airlock bouncing up and down as CO_2 is released. Over the next 2-3 days a lot of thick foam, called krausen (croy-zen) will form before it falls back into the beer.

3. Fermentation Ends

About 7-10 days after the point of high krausen your beer will be done fermenting. You're ready to bottle when there's been no activity in the airlock for 3 days. Optionally, as soon as you see activity in the airlock die down, you take a sample of beer from the fermenter's spigot and use your hydrometer to check and record the current Specific Gravity. Then wait 3 days and check the Gravity of a fresh sample--if there's been no change then you are ready to move on to bottling!

BOTTLING DAY

Now that you've got fermented beer, it's time to bottle and carbonate it. Carbonation is provided by adding a small amount of fresh sugar to the bottle, known as priming the beer, and then sealing the bottle. The small amount of residual yeast in the bottle will ferment this new sugar and create more CO2. This time, with no airlock to let it escape, the CO2 will be trapped in your beer, creating carbonation! This process is called bottle conditioning.

Gather up the following items:

- Vinyl Transfer Tubing
- Bottling Bucket
- Brewing Kettle or similar 2-3 gallon container to hold sanitizer
- Priming Sugar (from your ingredient kit)
- Bottle Filler
- Capper
- Bottle Caps
- Star San & Sanitizer Bucket
- 48x 12 oz. (or 24x 22 oz.) clean, Pry-Off Beer Bottles (NOT Twist-Off Bottles)

1. Move the Fermenter

You need to place it on the edge of a counter or table, so that you can fill the bottles via siphon. Move the fermenter as early and gently as possible, allowing time for any sediment disturbed by the movement to settle back out.

2. Boil the Priming Sugar

In a small saucepan, combine the Priming Sugar (usually corn sugar) that was included with your recipe with 2 cups of water, and boil for 3-5 minutes. This will dissolve the sugar and sanitize it at the same time. Cover the pot and set aside.

3. Mix Sanitizer

Install the spigot in your bottling bucket with the inner open port in the down position. Ensure the spigot is closed and mix a batch of sanitizer.

4. Sanitize Bottles

Sanitize your bottles by submerging them for 2 minutes and then letting them drain. A Bottle Tree or Rack is very helpful for this stage--or you can run your dishwasher the night before bottling and set the bottles upside down on the upper rack after sanitizing.

5. Sanitize Remaining Equipment

Transfer 1-2 gallons of the sanitizer into your brewing kettle or similar 1-3 gallon container, and discard the rest from your bottling bucket. Place the transfer tubing, bottle filler and bottle caps in the sanitizer.

6. Transfer Beer into Bottling Bucket

Pour the priming solution from the pot into the bottom of the bottling bucket. Place the bucket on a chair below the fermenter and fix the transfer tubing to the spigot on the fermenter, directing the open end into the bottling bucket. Open the fermenter's spigot and drain the beer into the bottling bucket, diverting the first portion of the beer into your hydrometer jar, which you can set aside until you are done bottling.

7. Attach the Bottle Filler

Remove and rinse the transfer tubing, and put it back in the sanitizer for 1 minute. Attach the tubing to the spigot on the bottling bucket and insert the bottle filling wand into the open end. It's helpful to move the bucket onto the counter so that you don't have to work on the floor, and to transfer your bottle caps to a small bowl of sanitizer so that they're within easy reach. Be sure you're within reach of your bottles.

8. Fill the Bottles

Open the spigot on the bottling bucket and place the bottling wand in the first bottle, depressing the tip to allow beer to flow. Lifting the tip of the bottling wand off the bottom of the bottle will stop the beer flowing. Take care once the beer enters the bottle's neck as it will rise very quickly. Fill the bottle all the way to the top and then slowly remove the bottle filler, leaving about 1" of headspace in the bottle. Place a cap on top of the bottle--you can elect to crimp the caps as you go or all at once after the bottles are full. Or enlist a helper to cap the bottles as you fill them!

9. Cap the Bottles

Center the bottle capper bell over the cap on top of the bottle. Press down firmly on the capper's handles to crimp the cap onto the bottle. You should leave a round dimple in the top of the bottle cap if you've sealed the bottle firmly enough. Once all the bottles are filled and capped, wipe them down with a dry towel as you return them to their case boxes. Set the boxes aside somewhere with an even room temperature and out of direct sunlight.

10. Measure the Final Gravity

Use your hydrometer to measure the specific gravity of the finished beer (referred to as the Final Gravity) and note it on your recipe sheet. You can approximate the beer's alcohol content pretty closely with the following equation: (**Original Gravity** - **Final Gravity**) x **131** = **Est. % Alcohol/Volume**.

CONDITIONING

Bottle Conditioning is the original, natural process of adding carbonation to beer. Once the bottles are filled, they are set aside for 2 weeks to allow the natural carbonation to occur. This additional time in the bottle is also important for full maturation of the beer's flavors and aroma.

At the end of your 2 week wait, move a couple of bottles into the fridge overnight. Go grab your favorite pint glass. Crack the top off and listen for the satisfying "psst!" In one gentle motion, pour your beer into the glass leaving behind the last ¼" with the sediment in the bottle. Sniff, sip, and savor. Congratulations, and enjoy your home crafted brew--you've earned it!