A GUIDE TO CRAFT BREWING

A NO-NONSENSE GUIDE TO BREWING YOUR OWN BEER

QUESTIONS? NEED ASSISTANCE?

If you run into problems or have any questions for our brewmaster, please email us immediately at support@craftabrew.com. If you make any mistakes or have any concerns DO NOT discard your beer before connecting with us for assistance. We'll help you rescue your brew!

Scan the QR code below For FAQ's, instructional videos & other helpful clips.

or visit:
CraftaBrew.com/Beer-FAQ

CRAFT BREWING

Craft brewing is the pursuit of creating flavorful, distinctive beers that stand apart from mass produced commercial brews. “Big Beer” is brewed for mass appeal, often made with cheap alternative ingredients like rice or corn to keep costs down. The craft beer community, on the other hand, is defined by quality ingredients and creativity. Craft brewers constantly push the limits of beer by experimenting with new ingredients and finding new ways to use traditional hops & malts. This innovation within the craft brewing community has led to the invention of new styles like the New England style IPA, which uses hops in new ways to extract different hop notes. Craft brewing also pays homage to traditional & old-world beer styles by brewing and reinterpreting German sours, Belgian ales and more.

Our beer recipes use the same high quality ingredients used by your favorite craft breweries. Each beer kit features a unique combination of fresh-packed hops, specialty grains, dry malt extract and yeast. This Guide to Craft Brewing walks you through the brewing, fermenting & bottling process for all of our 1 gallon beers, so hold on to this guide for future batches. Your kit may include special ingredients, like cacao nibs or oak chips, which are either labeled with instructions OR may include a supplemental sheet with instructions.

Enjoy the unique flavors of your first homebrew and remember – you’re now a participant in one of the world’s oldest traditions and a member of the craft brewing community!

READY FOR MORE?

If you’re already looking ahead to your next batch, we have 20+ beer recipes you can brew! Our 1 gallon recipe kits are compatible with the reusable equipment included in this kit. Recipe kits include malt extract, hops, grains, yeast and sanitizer. Brew another beer or try our mead, hard cider, hard seltzer or wines!

Want to take your brews to the next level & customize them to your tastes? Visit our site for ingredients & supplies to help boost ABV, add sweetness, increase body & more. Explore our blog – The Tap – for homebrewing tips & techniques!

VISIT

Blog.CraftaBrew.com – www.CraftaBrew.com

INGREDIENTS

MALTED BARLEY

Malted barley is the primary source of fermentable sugars in brewing. When the yeast is added to the wort (unfermented beer – pronounced “wert”) they will convert these sugars to alcohol. In our kits we use quality malted barley extract that is 100% natural with no additives. Using malt extract has some advantages over brewing with all grain, the biggest being time and convenience. The all grain brewing process generally takes 3+ hours, while extract brewing takes about 90 minutes without compromising quality or taste. We also incorporate a variety of specialty grains into our kits which add to the complexity and color of the beer.

HOPS

Hops are used to balance the flavors in beer. Without hops beer would be sweet, yet the bitter acids and oils in the hops help to balance the flavor profile and add aroma. Hops are grown all around the world and come in many varieties, each having their own distinct characteristics (piney, fruity, floral, spicy, earthy). Hops also have the benefit of acting as a natural preservative; one of the most famous examples of this is seen in the India Pale Ale or IPA–style of beer. The preservative quality of hops helped this beer survive the long voyage from Britain to India and thus the popular IPA–style was born. Hops may be used in whole cone or pellet form. Our kits use hop pellets because they’re efficient, especially when used for bittering. Pellets are also more stable and less prone to oxidation than whole cones, making them a popular choice for commercial & home brewers alike.

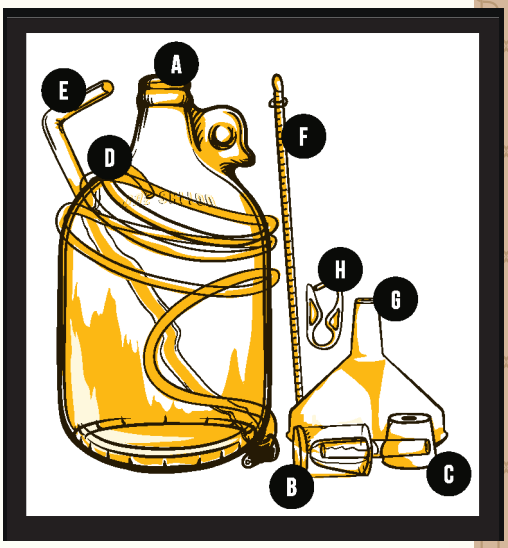
WATER

Water is the main ingredient in beer and any imperfections in the water will come through in the finished product. Generally, if your water is safe to drink and tastes fine then it will be okay for brewing. If you're not sure about the quality of your water or just want the best possible beer, we recommend running the water through a filter (like a Brita® filter) or buying spring water to use on brew day. Do not use distilled water – it's stripped of minerals that help fermentation.

YEAST

Yeast is a living organism that is technically a fungus. It grows and multiplies by eating sugar (from malts), converting the sugar to alcohol and eventually helping carbonate your beer by releasing CO2 in sealed bottles. Different strains of yeast will add different flavors to your beer. Some yeast produce fruity flavors (like the banana & clove esters from Hefeweizen yeast), while others may create a spicy character during fermentation (like Belgian yeasts). Different strains of yeast also have different tolerances to the alcohol levels they create. Eventually the yeast will die in the presence of alcohol and stop fermentation. This is why there aren't any beers as strong as spirits. The strongest a beer can naturally get is just over 20% Alcohol By Volume, which is not easily achieved.

INCLUDED EQUIPMENT



A – 1 Gallon (3.8 L) Glass Carboy

B – 3 Piece Airlock

C – Drilled Rubber Stopper

D – Transfer Tubing

E – Racking Cane & Filter Tip

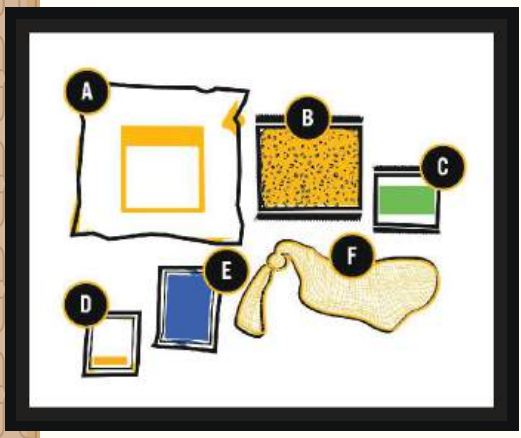
F – Thermometer

G – Funnel

H – Tube Clamp

ADDITIONAL ITEMS NEEDED

- Large brew pot with lid
- 10 Lb bag of ice (4.5 kg)
- Ten 12 oz (or eight 16 oz) flip-top bottles
  OR you can recycle pry-off beer bottles to use with our Capping Kit
- Fine mesh strainer (optional)



BAG CONTENTS

A – Dry Malt Extract

B – Specialty Grains

C – Hops

D – Yeast

E – Sanitizer

F – Grain Steeping Bag
(resembles cheesecloth)

SANITATION

Proper sanitation is regarded as the most important step in brewing. Yeast is the only organism you want touching your beer. Any other bacteria on your equipment will eat the sugar and quickly spread, making the beer sour and undrinkable. Make sure everything that touches your beer after it's brewed is properly sanitized using the included packet, which will make 2 gallons of solution.

To sanitize, mix HALF of the sanitizer packet with 1 gallon of water in a pitcher or bucket. Reserve the other half for bottling day. Soak equipment for 60 seconds in the mix. No need to rinse. Let equipment dry on fresh paper towels.

HOW TO BREW

This is the general brewing process for our 1 gallon beers. Some recipes may include special ingredients, which are labeled with instructions. If your kit came with such a supplemental brew note, be sure to review those instructions before you start.

1. Pour as close to a gallon (3.8 L) of water in your stock pot as you can, but leave at least a few inches (centimeters) of room to prevent boil overs. If you can't boil a full gallon in your pot, you can always add water to top off at step 9. Place your pot on the burner and turn up to high.

2. Place your specialty grains in the grain steeping cheesecloth bag and tie off the top in a knot. Wait until your pot of water reaches 155°F (68°C) and then steep the grains in the water for 20 minutes while closely maintaining the temperature.

3. Remove and discard the grains making sure NOT to squeeze the excess water from the grains – this will release unwanted tannins. Next, bring your wort (unfermented beer) up to a boil. Once you see the first boiling bubble take your brew pot off the burner.

4. Next, take out your dry malt extract and slowly stir it into the pot, making sure it does not clump or stick to the bottom. Once all of the malt extract is completely dissolved return the pot to the burner and turn the heat up to medium–high to achieve a gentle rolling boil.

5. At this point you should be monitoring your brew pot at all times because the wort can easily boil over and this can be a very messy mistake! If you do start to have a boil over, turn off the heat and blow on the foam. Once a slow rolling boil has begun, add in your "Bittering" hops and start a timer for a 60 minute boil. If your kit includes "Flavor" hops add them at 15 minutes left in the boil. Any "Aroma" hops should be added at 2 minutes left in the boil.

   NOTE: Each beer has a unique blend of hops, so your kit may not include all the hops mentioned here or may even use hop additions that are not listed here (like dry hops). Always refer to the label on your hops.

6. During the 60 minute boil you'll have plenty of time to sanitize your fermentation equipment (carboy, funnel, stopper, tubing, thermometer) with HALF the sanitizer packet. See "Sanitation" section on page 5.

7. After the 60 minute boil, turn off the burner and remove the pot from heat. Next, create an ice bath in your sink using a few pounds (kilograms) of ice and cold water. Place your brew pot in the ice bath & place a lid on the pot to prevent contamination. The ice bath chills wort to prepare it for the yeast, which must be added below 75°F (23°C). The quicker you cool wort down the lower the risk of contamination, so use a lot of ice if possible & occasionally stir the water and ice in the sink.

8. Verify that the wort is below 75°F (23°C) with the sanitized thermometer. Using the sanitized funnel, transfer the wort into the sanitized carboy and do your best to leave any thick sludge in the pot. If you have a fine mesh strainer you can pour wort through it in order to filter out the sediment.

9. At this point you may notice that you've lost some volume to evaporation. If you don't have a full gallon after brewing you'll need to add cool water to reach the "one gallon" fill line (just above the letters printed on the jug). Once topped off, cut open the yeast packet and add the entire contents into the carboy. This is called "pitching" the yeast.

10. Take your sanitized rubber stopper and plug the top of the carboy. The stopper will naturally stick out a bit. To make sure the yeast has oxygen to multiply you will need to aerate the wort. Take your clean thumb and place it over the top of the rubber stopper hole. Securely hold the carboy and shake vigorously for over a minute.

11. After aerating, dry the stopper and inside lip of the carboy with a paper towel to help it stay in place. Insert one end of the flexible tubing about a 1/2 inch (12 mm) into the rubber stopper hole and the other end into a half-full glass of water. This is called a blow off assembly, which keeps foam from overflowing. Fermentation should begin within 24–48 hours and you'll start to see foaming and CO2 bubbles.

12. Let your beer ferment for 2 weeks between 60–75°F (68°F is ideal) & in a dark location. A stable temperature is best for yeast performance. Cold temps can stall fermentation, while hot temps can stress the yeast and create off flavors. Expect to see a lot of fermentation activity within 72 hours of pitching the yeast. Activity will slow down and taper off, but the yeast is still working.

13. After a few days, once foam & bubbling have calmed, you can replace the tubing with the airlock. When you do so, we recommend rinsing the tubing right away to remove any sediment since you'll use it again on bottling day. Remove the airlock cap, add water to reach the "fill line," place cap back on and gently insert the airlock into the stopper.

BOTTLING

We recommend using glass flip-top bottles, the same ones that Grolsch® beer is bottled in. You can use empty Grolsch® bottles or find bottles on our website. You can even save pry-off bottles and use our Capping Kit to seal them. We suggest you practice the siphon technique, detailed below & illustrated on page 9, with water once or twice before you bottle your beer. Having a friend to help on bottling day makes the job easier, too.

1. Rinse bottles with warm water to wash away any sediment or dust.

2. Sanitize your bottling equipment (bottles, caps, racking cane, filter tip, transfer tubing & a spoon) with the remaining half of the sanitizer packet for 60 seconds to sanitize. See "Sanitation" section on page 5.

3. In a large stock pot, which can hold at least a gallon of liquid, add 1.5 cups (355 mL) water and exactly 2 Tablespoons (15 mL) of white table sugar. This is called priming sugar. It gives the remaining yeast fuel to carbonate beer in bottles. Heat the water on medium-high heat and stir in the sugar until fully dissolved. Boil for 5 minutes. Cover & let completely cool.

4. Once the pot and sugar water are completely cool it is now time to siphon the beer from your carboy into the pot of priming sugar. This technique allows you to transfer beer off of the sediment without mixing it back into the solution. It also helps prevent unnecessary oxidation (which is caused by splashing and air bubbles).

5. To start a siphon, fill a large bowl with fresh, clean water. Attach the tube clamp to one end of the sanitized tubing then submerge the tubing in the water to completely fill with liquid. Next, close the clamp and attach the unclamped end of tubing to the racking cane. Now you have a siphon starter. See illustrations on page 9.

6. Place the carboy high up on a table or counter. Place the pot of priming sugar down low on a chair or on the ground – gravity and distance are important. Attach the black filter tip to the end of the racking cane. Insert the cane into the carboy, making sure the end is far enough away from sediment so as not to suck it up. Hold the clamped end of the tube low to the ground over a glass or bowl and unclamp to drain the water & start the siphon. Clamp down as soon as beer begins to flow out of the end. Your tubing should now be full of beer.

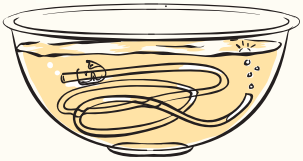
7. Now, hold the clamped end over your pot of priming sugar and unclamp to transfer the beer without splashing. Tilt the carboy as it drains to keep the cane submerged & to maintain the suction. Once beer is completely transferred to the pot, mix gently with a sanitized spoon to evenly distribute the priming sugar.

8. Place the pot of beer & sugar up high and your bottles as low as you can. Repeat steps 5–7 to siphon beer from the pot into bottles, using the clamp to start and stop the flow. Fill each bottle to where the neck starts, cap & repeat.

9. Let bottles carbonate for 2 weeks in a dark place between 68–75°F (20–23°C). After 2 weeks, refrigerate to lock in the carbonation. Leaving bottles at room temp beyond 14 days poses risks of over-carbonation or "bottle bombs." Enjoy bottles within 6 months for optimal flavors.

NOTE: If carbonation is falling flat, bring remaining bottles out of the fridge and let age at a warm room temp for 3-5 days to allow the yeast to create some more CO2. Return to the fridge & test again. If there are any noticeable "off flavors" present, let bottles age in cold storage for another 1-2 weeks before enjoying your next bottle.

STARTING A SIPHON



Dunk your tubing into a bowl of fresh, clean water (with clamp open) and let the tubing completely fill with liquid.

Next, close the tubing clamp...

...and attach the non-clamped end to the racking cane; this will be your siphon starter.

Insert the racking cane into the fermenter, making sure the end is far enough away from sediment so as not to suck it up.

Place the carboy on a high surface. Hold the clamped end of the tubing as low as possible – distance is crucial. Unclamp to start the suction. Use the tube clamp to start & stop the flow.

Scan this code for a siphon how-to video or visit: Craftabrew.com/beer-FAQ

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