

Extract Brewing

Pros: less equipment needed, easier for beginners, fewer steps, shorter brew day

Cons: less control over composition and fermentability of wort

All-Grain Brewing

Pros: complete control over composition and fermentability of wort, grain is cheaper than extract

Cons: more equipment and knowledge required, brew day takes longer

vs.

Partial Boil

Pros: most people already have a large enough pot, easier to chill

Cons: less hop utilization and more caramelization

Full Boil

Pros: less caramelization and better hops utilization

Cons: requires larger pot, often requires an outdoor propane or natural gas burner to boil and wort chiller to chill

vs.

Stovetop Boil

Pros: less expensive, easier for beginners, weather not a factor

Cons: clean-up of boil overs more difficult, takes longer to boil

Outdoor Boil

Pros: faster boil, larger batch size possible, easy clean-up

Cons: extra equipment, weather

vs.

Plastic Fermenter

Pros: won't shatter, blocks light, easier to carry, less expensive, easier to clean

Cons: permeable to O₂ so beer must be transferred after 2 weeks, easy to scratch which will prevent proper sanitization

Glass Fermenter

Pros: impermeable to O₂ so beer can be stored long-term

Cons: heavy, will shatter if bumped or hot liquid added, beer should be protected from light, harder to clean and carry

vs.

Bottling

Pros: less equipment/expense, reusable crimp-cap bottles from commercial beers readily available

Cons: cleaning and sanitizing 54 bottles/batch, tedious

Kegging

Pros: easier to clean, only have to clean one vessel/batch

Cons: more equipment, expensive, requires additional refrigerator

vs.

Terms

- Extract brewing – malt extract is concentrated sugars from grains, avoid kits that call for addition of large amounts of table sugar
- All-grain brewing – grains are crushed and soaked in hot water to convert starches to fermentable sugars
- Wort – is sugary unfermented beer
- Caramelization – darkening of sugars caused by concentrated boil
- Hops utilization – amount of bittering acids extracted from hops, decreased in partial boil
- Wort chiller – copper or stainless coil used to cool down wort after boil by immersing in wort and running cool water through it, also research counterflow chillers
- Plastic fermenter – 6.5 gallon plastic bucket with lid. Hole is drilled in lid and grommet inserted to attach airlock, scratched fermenters must be replaced to avoid contamination, plastic “Better Bottles” also available which resemble glass carboys but can be difficult to clean without scratching
- Glass fermenter – 6.5 gallon carboy for primary fermentation, or 5 gallon for secondary
- Airlock – plastic apparatus that is partially filled with water or sanitizer to let CO₂ out of the fermenter and prevent O₂ and contaminants from entering
- O₂ permeability – exposure of beer to oxygen after fermentation has started will create off flavors, plastics do not block oxygen well enough for extended storage
- Protecting beer from light – beer must be protected from fluorescent and sun light, even during fermentation, to avoid skunking
- Crimp-cap bottles – or pry-cap bottles, any bottle that is not screw cap, brown is preferred
- Kegging – refers to storing beer in 5 gallon Cornelius soda kegs

Items Needed

After following the decision tree, choose items listed under each of your choices

- Extract Brewing – minimum 4 gallon (16 quart) pot for boiling (bigger is better), 6 feet of 3/8" ID hose for transferring wort to fermenter, large funnel, large metal or plastic spoon, hydrometer, sanitizer, nylon mesh bag for steeping grains. Scale with range of ¼ ounce to ~5lbs, racking cane or autosiphon, and wine thief recommended.
- All-Grain Brewing – research mash tun, hot liquor tank, false bottom, manifold, ball valve
- Partial Boil – minimum 4 gallon (16 quart) pot for boiling.
- Full Boil – minimum 6.5 gallon (26 quart) pot for boil, often requires outdoor boil method due to pot size. Wort chiller recommended.
- Stovetop Boil – stove, preferably gas.
- Outdoor Boil – propane or natural gas burner, often used with full boil.
- Plastic Fermenter – 6.5 gallon food-grade plastic bucket with drilled lid, grommet, airlock, OR 6.5 gallon Better Bottle with stopper and airlock.
- Glass Fermenter – 6.5 gallon glass carboy for primary fermentation, stopper with drilled hole for airlock, airlock. A 5 gallon glass carboy may also be needed for secondary fermentation after primary in plastic or glass, adding fruit or oak, or dry hopping. Additional airlocks and stoppers recommended.
- Bottling – 54 crimp-cap bottles (preferably brown), bottle capper, bottling wand, bottling bucket with spigot, bottle caps.
- Kegging – keg(s), CO₂ tank, CO₂ regulator, liquid and gas quick disconnects, liquid and gas tubing, picnic tap or faucet. Separate refrigerator often required.

Alphabetical List of Major Vendors

Equipment

- Adventures in Homebrewing - <http://www.homebrewing.org/>
- Austin Homebrew Supply - <http://www.austinhomebrew.com/>
- BeerNut - <http://www.beernut.com/zen-cart/>
- Fermtech - <http://www.fermtech.ca/>
- High Gravity - <http://www.highgravitybrew.com/>
- Hobby Beverage Equipment Company - <http://minibrew.com/>
- Keg Connection - <http://stores.kegconnection.com/StoreFront.bok>
- Midwest - <http://www.midwestsupplies.com/>
- Morebeer - <http://morebeer.com/>
- Northern Brewer - <http://northernbrewer.com/>
- Williams Brewing - <http://www.williamsbrewing.com/>

Ingredients – include all above and:

- Hops Direct - <http://www.hopsdirect.com/>
- Niko's Homebrew Supply - <http://www.nikobrew.com/>
- North Country Malt - <http://countrymaltgroup.com/homebrewers/>

Information

- Basic Brewing Radio/Video - <http://www.basicbrewing.com/>
- How to Brew by John Palmer - <http://www.howtobrew.com/>
- The Brewing Network - <http://www.thebrewingnetwork.com/>



How to Brew Great Beer in Under Six Hours!

Enjoy the fun and satisfaction of making World Class beers with your own *PersonalBrewery™ System*. Just ten steps over two work days — *six hours, max!* • Twenty-eight days later — *You've Got More Beer!™*

This *MoreManual!™* shows typical timelines for brewing five gallons of high-quality beer with the Malt Extract brewing process, using a *MoreBeer!™ PersonalBrewery™* starter system. Times assume no prior homebrewing experience.

Please also read and follow our step-by-step Beer Making Instructions included with each MoreBeer! Ingredient kit.

Partial-Boil Method (method differences in red)

Minimum kettle size needed: 5 gallons

Full-Boil Method (method differences in red)

Minimum kettle size needed: 7.5 Gallons
Additional equipment needed: Wort Chiller (copper coils)
Additional equipment considered helpful: Portable propane burner (#BE400)

BREWING DAY

(Work day #1 of 2 work days — Estimated Time: 2–4 hrs.)

Step 1 – (Process Day #1 of 28) – Place **2–3 gallons** of cold water into a Brewing Kettle (a sturdy metal kettle with minimum **5 gallon** capacity).

Step 2 – Remove grain from Ingredient Kit and place into the nylon-mesh Grain Bag. Submerge bag in water.

Step 3 – When water temperature reaches 170°F as measured by included thermometer, remove Grain Bag and discard grain. Continue heating water to a boil.

Step 4 – When water reaches a boil, turn off heat. Stir in the Malt Extract and the *first* portion of Hops. Turn heat back on and continue boiling for one hour. Add the *second* portion of Hops, per recipe.

Step 5 – After boiling **one hour**, cool Kettle by moving from stove into a sink filled with ice-water, or by running cold water around it. Cool until below 130°F.

Step 6 – Sanitize the Fermenter using the materials supplied. Pour two gallons of cold water into Fermenter (pre-cool water in your refrigerator or freezer). Add the cooled-down-to-130°F Wort to Fermenter. Top-off with cold water to the five gallon mark.

Step 7 – Add packaged Brewer's Yeast to Fermenter. Attach Stopper and Airlock. Store in cool, quiet place. If a glass Fermenter, you can watch fermentation progress.

Step 8 – (process days #1–14 of 28) – Wait two weeks for for the Fermentation process to take its natural course.

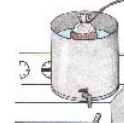
BOTTLING or KEGGING DAY

(Work Day #2 of 2 work days— Estimated Time: 1–2 hours.)

Step 9 – (process day #14 of 28 days) – Bottle your beer, then wait two weeks for carbonation to develop. Or, keg your beer, then wait *only* 2-7 days for carbonation.

SAVORING & SHARING DAY!

Step 10 – (process day #28 of 28) – Enjoy your beer!



BREWING DAY

(Work day #1 of 2 work days — Estimated Time: 2–4 hrs.)

Step 1 – (Process Day #1 of 28) – Place **6 gallons** of cold water into a Brewing Kettle (a sturdy metal kettle with minimum **7.5 gallon** capacity).

Step 2 – Remove grain from Ingredient Kit and place into the nylon-mesh Grain Bag. Submerge bag in water.

Step 3 – When water temperature reaches 170°F as measured by included thermometer, remove Grain Bag and discard grain. Continue heating water to a boil.

Step 4 – When water reaches a boil, turn off heat. Stir in the Malt Extract and the *first* portion of Hops. Turn heat back on and continue boiling for one hour. Add the *second* portion of Hops, per recipe.

Step 5 – After boiling for **40 minutes**, insert Wort Chiller (copper coils) directly into the boil. Continue boiling for 20 additional minutes. Turn off heat and start flowing cold water through wort chiller.

Step 6 – Once Kettle has cooled to touch (70-80°F), connect one end of clear Vinyl Tubing to the Ball-Valve on the Kettle (if your kettle has a ball valve) and place other end of Tubing into a Fermenter that you have pre-sanitized using the materials supplied. Open Valve and allow five gallons of Wort to fill-up Fermenter.

Step 7 – Add packaged Brewer's Yeast to Fermenter. Attach Stopper and Airlock. Store in cool, quiet place. If a glass Fermenter, you can watch fermentation progress.

Step 8 – (process days #1–14 of 28) – Wait two weeks for for the Fermentation process to take its natural course.

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Step 10 – (process day #28 of 28) – Enjoy your beer!