

Equipment Kit Rundown

1. Fermentor: The fermentor is the heart of your new home brewery – the vessel where alcoholic fermentation takes place. It is either an undrilled food grade white HDPE plastic bucket, or a carboy made out of clear PET plastic or glass. Always sanitize with Iodophor or StarSan before each use. For cleaning after use, simply soak in Powdered Brewery Wash (PBW), One-Step or B-Brite cleanser for 24-48 hours followed by a thorough rinse. Repeat if necessary. This should loosen up all of the stuck yeast and hop material. While you can use a carboy brush to remove stubborn deposits on glass fermentors, take care not to use abrasive cleaning tools on the plastic and PET units. If you have a bucket fermentor, you will also have a drilled/grommeted lid. This lid should also be sanitized and will snap on top of the bucket (very tightly) once you've transferred your wort (unfermented beer) to the bucket and added yeast. Once the plastic or PETs have become scratched, abraded or are visibly worn, take the expense to replace these units.



2. Airlock and Stopper: The airlock is a one-way valve that allows CO₂ to escape your fermentor, but prevents anything from getting back through to your brew. Fill this up with properly diluted sanitizing solution or a neutral spirit such as vodka to the line that is marked on the unit. Clean and sanitize this as you would any other piece of equipment. The photo to the left has the airlock pressed into a rubber stopper that in turn would be pressed into the opening of your carboy. If you are using a bucket fermentor, the airlock would go directly into the bucket lid's grommeted hole instead of a stopper.



3. Bottling Bucket with Spigot: A plastic bucket drilled with a 1" hole near the bottom for installation of a spigot. To install the spigot, take off the nut, place the spigot in the hole (if there is only one gasket, it goes on the outside; if there are two, one goes on the inside, the second on the outside) and then screw the nut on finger tight to install. Take care in cleaning this after each use, as sometimes particulates can clog the inner parts. Once it is fully fermented and ready to bottle, you will siphon your beer from the fermentor to this vessel after thoroughly sanitizing it, and add priming sugar. Attach one end of your 5/16" ID tubing to the spigot, and the other to your bottling wand to create your bottling station. Clean after use with non-abrasive materials and replace once there is wear/tear to prevent infections. Some kits may include a lid for the bottling bucket; using it is not required.



4. Vinyl Tubing: 5/16" ID is the most common size needed by brewers. It is used for siphoning and bottling. 1/4" ID tubing (included in 6-gallon carboy kits only) can be used for making a blowoff assembly by pushing it directly into the stopper or the stem in the main piece of a 3-piece airlock if a vigorous fermentation threatens to deposit yeast into the airlock. When using a blow-off, always place the other end in a small container with sanitizing solution. Rinse tubing immediately after use and sanitize before use. Replace tubing when stained/worn – usually every six months. Never use moldy tubing!



5. Racking Cane OR Auto-Siphon: A racking cane is an L-Shaped piece of 5/16" OD hard acrylic with a black or red cap on the long end. The vinyl tubing is connected to the short end to transfer beer between vessels. The black cap on the end serves a purpose and helps keep sediment out of the tubing. Sanitize and rinse as you would other equipment. This comes with a clip or cone to hold in place during siphoning. To create a siphon, fill the tubing/cane up with sanitizing solution, place your finger on the end of the tubing, place the black capped end in your beer, lower your hand **BELOW** the level of the beer you are siphoning and let go to start the flow. If you cannot do this, or don't want to try we recommend an **Auto-Siphon** (included in Deluxe kit). An auto-siphon looks like a racking cane mounted in a larger acrylic tube. The siphon is started by simply "pumping" the inner piece up and down a couple of times.



6. Bottling Wand: This is a piece of 5/16" OD hard acrylic with a plastic nozzle on one end that will serve as a bottle filling device. After having assembled your bottling station (see above), turn the spigot to the "on" position and the beer will flow through the wand and fill the bottles **ONLY** when you push the tip of the wand against the bottom of the bottle. The filling end of the spring-tipped model usually comes off and can be cleaned. As with all equipment that touches your beer after the boil: Sanitize before use and clean after use.



7. Capper & caps: This is a fairly self explanatory device. It uses the glass ridge on the bottle just below the mouth for pulling the capper down and crushing the crown cap in place. They work on **MOST** bottles. Don't use twist off bottles or bottles without the ridge below the cap. Your kit comes with enough caps for your first batch. Caps cannot be re-used and must be purchased new for each batch.



8. Funnel: This is used for pouring wort from your kettle into a carboy. Not included in bucket-based Basic Brewing Equipment Kit. Sanitize before use.

9. Hydrometer: This is an instrument used to test the specific gravity of a liquid (how dense the liquid is compared to water). Generally, you will want to take a measurement before adding yeast when the wort is cool (Original Gravity - OG) and a measurement after fermentation is complete (Final Gravity - FG). With these 2 numbers you can accurately calculate the ABV of your beer. Be **CAREFUL** not to break this!!! Note that hydrometers are calibrated for a sample temperature of 60°F – if you are sampling room temperature beer, add 1-2 points to your reading (e.g. 1.010 would correct to 1.012 if the sample is at 72°F). Refer to the instructions that come in the hydrometer storage tube for more details. Not included in Basic Brewing Equipment Kit.



10. Hydrometer Test tube: This is a clear plastic cylinder with a broad base to hold the sample that you are testing for specific gravity. Included in our Deluxe Equipment Kit only. If you don't have one, you can use the tube the hydrometer came in, although it doesn't have a base so you'll have to hold it.

11. Cleanser: A powdered cleanser is including in your kit (One-Step, B-Brite or PBW in most cases). Use the cleanser to remove yeast/hop/protein stuck on your equipment from fermentation. Rinse thoroughly after use.

12. Sanitizer: A brewery grade iodine-based (IoStar/Iodophor) or foaming acid sanitizer (StarSan). Follow the instructions on the bottle to create the correct dilution and use on everything that touches your beer after the boil. Iodine-based sanitizers will stain! Concentrated StarSan is very acidic and can burn sensitive skin and will stain countertops and bleach out Formica/colored grouts – at the proper dilution, it is fairly benign. These are no-rinse sanitizers when properly diluted – do not rinse or let dry, just drain and shake off any excess foam.

- 13. Bottle Brush:** This is a brush designed to fit VERY tightly inside most bottles. It helps in removing yeast rings from the neck of bottles and also particulate in the bottoms. Generally, if a bottle has heavy stains that won't remove easily, tossing it into the recycling bin is a good idea. Make sure to rinse the brush after using with sanitizer to prevent rusting.



- 14. Carboy Brush:** This is an L-Shaped brush designed to fit inside glass carboys so you can clean the neck area. After fermentation you will have a large amount of yeast ring around the top, and this will help in removing it. You may find that using this in combination with your cleaning solution works best. Make sure to rinse this brush after using to prevent rusting. Do NOT use a carboy brush on a PET fermenter or fermenting bucket – the brush will scratch the inside! Only included in glass equipment kits.

- 15. Fermometer:** This is an adhesive thermometer to stick to the outside of your fermentor to give you an idea of what temperature you are fermenting at. These units don't work if you get them extremely hot or cold. Otherwise they are handy and are accurate to +/- 2F. This is usually located inside of the book that came with your kit or in the box with the capper - we put it there to make sure it doesn't get kinked up. Not included with the Basic Brewing Equipment Kit. Do not get these wet, or they will delaminate.



- 16. Floating OR Lab Thermometer:** These thermometers, included in the Deluxe Equipment Kit, are used to get accurate readings of water or mash temperatures. The Lab thermometer is more accurate and has a place to tie a string to if you need to submerge it or put it in hot liquid. The floating thermometer is more user friendly in that it floats in the mash/sparge/steeping water. Don't get the floating thermometer too hot (don't boil it) as the wax can melt causing it to be rather hard to read.



- 17. Bottles:** These are bottles for packaging your beer. Included with the Deluxe Equipment Kit only.

- 18. Spoon/Paddle:** Spoons are useful for stirring your mash or wort while the paddle is more useful for breaking up stuck-together grain (doughballs). Don't leave them in high heat situations (like in boiling wort) for long periods of time, as they can get "bendy". Included in Deluxe Equipment Kit only.

