

1443 San Pablo Avenue Berkeley, CA 94702 (510) 849-0400



Last updated: Saturday, April 18, 2015

"Everything for the makers of wine and beer" Since 1957

Kegging Demonstration

Equipment used:

- Racking cane with hose and hose clip
- Carboys for fermentation and secondary
- Ball-lock and pin-lock kegs
- co2 tank with hose hook-ups
- Picnic tap for dispensing
- Refrigerator for cold-crashing (or a bucket of ice in a pinch)

Tools Required:

- Flat-head Screwdrivers for adjusting pressure, removing gaskets, taking apart components
- Socket wrench for removing posts (12-point wrench ok)
- Deep-socket: 12-point 7/8", 12-point 11/16" and/or pin-lock sockets for removing posts
- 9/16" wrench and/or adjustable wrench for removing flare fittings and other components (if needed)
- Wire Brush (for scrubbing)

Cleaning

Reconditioning:

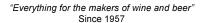
- Scrub outside of rubber with Ajax. Rinse well (bleach will pit stainless steel with time.)
- Remove all posts.
- Remove all gaskets.
- Scrub parts as needed.
- Scrub inside of keg as needed.
- Fill with hot water. Add a few tablespoons of Sodium Percarbonate.
- Keep parts together with keg in separate cup with their own solution.
- Place diptube and hang lid inside solution in keg.
- Let sit overnight in solution. Scrub as needed. Rinse well.
- Fill with co2 to test pressure.

Quick Cleaning:

- Spray out through diptube until it is clean.
- Fill with hot water. Add a few tablespoons of Sodium Percarbonate. Be sure solution enters down tube.
- Let sit for at least an hour.
- Run solution through diptube and gas tube while emptying.
- Scrub if needed. Rinse well.
- Fill with co2 to test pressure.



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Standard Cleaning:

- Remove posts. Remove internal gaskets only if needed.
- Soak parts together with keg in separate cup with their own solution.
- Place diptube and hang lid inside solution in keg.
- Let sit overnight in solution. Rinse well.
- Fill with co2 to test pressure.

Other Equipment:

All equipment that has beer run through it should be taken apart and cleaned immediately after each use. Gas lines should be checked periodically to ensure they are free of liquids inside the lines. If they are dirty, they should immediately be taken apart and cleaned.

Oak Barrel's pre-made dispensing line includes the following parts:

- 4 Ft of 3/16" thick-wall beer line
- Cobra head
 - o Screwcap, Handle, Peg, Spring and Rubber Valve and Faucet w/barb
- Ball-lock or pinlock connector
 - Screwcap, poppet, spring, gasket and quick disconnect w/barb

All of these parts should be taken apart and the hose with fittings and all the parts should be soaked in a hot Sodium Percarbonate solution after each use.

Gas lines only need be taken apart if dirty.

Sanitizing

Quick Sanitize:

- Fill with 1 gallon of water and 6 mL of Star-San.
- Swirl sanitizer around, contacting every surface.
- Pour sanitizer through diptube and gas tube and put into second container.
- Sanitize lid in second container while leaving keg upside down to drip.

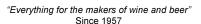
Full Sanitize:

NOTE: This method removes most of the air and replaces it with an almost pure co2 environment, making it ideal for storing kegs while not in use. It is also ideal for sanitizing more than one keg at a time. The sanitizer can be pushed from one keg to the next, sanitizing them in line.

- Fill the keg with 5 gallons of water and 1 oz of Star-San and let sit for two minutes.
- Run some of the solution through the gas tube.
- Hook up the tank and run the sanitizer out the diptube (usually filling another container).
- Swirl the keg around to ensure all the sanitizer has been pushed out.



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Siphoning/Transfer:

Cold-crashing:

- If you have a large fridge or chest freezer, it is highly recommended to put your carboy into the fridge several days before transferring to keg. This will not only ensure the beer is cold, but that much of the sediment, yeast, etc. has compacted down, leaving nothing to put into the keg but clear, cold beer.
- If you do not have a fridge, it may be beneficial to put the carboy into an ice-bath the night before you transfer, to the same effect.

Staging:

- Always put your carboy up on the counter where you will be working at least 30 minutes before you plan to transfer. This way the sediment that gets kicked up can settle back down.
- If you did not cold-crash the carboy, you may even wish to let it sit overnight.
- Cover the carboy with a box or sweatshirt to ensure that no sunlight hits it while you are waiting.

Siphoning:

- The old fashioned method of transferring. Simply use a sanitized racking cane with hose and clip the cane inside the carboy. Then use your mouth to start a siphon into the keg. I use this method as an excuse to "sanitize" with a drink from one of my favorite whiskeys.
- Slowly move the cane down into your carboy to keep the tip under water as the keg fills.
- Near the end, hold the cane towards you at the bottom of the carboy.
- Carefully tip the carboy towards you to pick up as much beer as possible at the very end.
 - Do not rock the carboy. If you tilt it and then put it back down, all the sediment will kick up.
- Once you start picking up sediment, leave the rest of the liquid (hopefully a small amount) behind. Quality over quantity is best.

TIP: Raising the hose up just where it is connected to your cane will help to force the air out of the hose once your siphon begins.

Sanitary Siphon:

Similar to the above method, but instead of using your mouth, you use liquid to start the siphon.

- Fill the tube (not the cane) with sanitizing solution.
- Carefully place the cane inside the carboy and clip it to the side.
- Start dumping the sanitizing solution into a dump bucket until it carries the beer behind it.
- Have a glass ready so you can take a sample of the beer while you move to the keg.
- Move the hose to the keg
- Follow above instructions



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Filtering

Filtering using Wine/Beer Plate Filter:

Additional Equipment required: Vintage Shop Filter Housing, Filter pads (various available.)

NOTE: The beer cannot be carbonated if it is to be filtered.

- Ensure beer is already relatively clear by racking. Transfer to keg if not already done.
- Have a keg of sanitizer ready. You will use this keg for sanitizing the filter setup as well as collecting the filtered beer.
- Hook up to co2 equipment to sanitizer keg and place pressure at 5PSI.
- Rinse filter pads with water and place in filter housing.
- Complete setup with filter housing leaving the "out" (2-tube) side without a keg fitting.
- Hook up the "in" side keg fitting to keg with sanitizer and run sanitizer through the pads for several minutes.
- Hook up the "in" side keg fitting to keg with beer and run some of the beer through.
- Taste the beer. If it tastes like paper, continue to run some out of the filter.
- Once it tastes like clean beer, disconnect from "in" side.
- Set up "out" side to transfer through the downtube of the sanitized receiving keg.
- Hook up the "out" side first and hook up the "in" side second and your transfer will begin.
- Adjust pressure as needed and quickly disconnect the filter from the "out" side when completed.

NOTE: Foaming is quite normal. The beer may look and taste as if it has the cascading effect of a nitrogen pour, like a Guiness. Simply carbonate as normal and you'll see the brilliant clarity in the end result.

Carbonation

24 hour carbonation method:

NOTE: The beer must already be cold to get proper carbonation using this method.

- Ensure beer is at 35-40°F. Transfer to keg if not already done.
- Hook up to co2 equipment and place pressure at 40PSI.
- Holding the keg upright, shake it well for 30 seconds in a back-and-forth motion.
- Turn the pressure down to 30PSI (you may need to shake the keg to get the pressure to drop.)
- Leave keg at 35-40°F, hooked up at 30PSI for a <u>FULL 24 hours</u>.
- Keep it cold in a fridge during this time.
- Disconnect gas and relieve all pressure from the keg.
- Turn down gas to serving pressure (usually around 5PSI) and hook back up.
- Hook up your sanitized faucet and your beer is ready to serve.



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Adjusting carbonation to style:

I often go by feel and go less than or more than 24 hours depending on how I want the beer carbonated. For instance, an English-style beer I might leave hooked up only 18 hours, while a Belgian-style beer I might leave hooked up 30 hours to make it more effervescent. Find out what works for you.

Force carbonation:

If you need beer right away, and it's already cold, you can force carbonate it in a very short amount of time. Regularly, I've needed beer for events that was not carbonated and sometimes not even cold. This will work in a pinch:

- Put your pressure to 40PSI.
- Place the keg on its side, giving plenty of room for hoses.
- Roll it back-and-forth vigorously, forcing the co2 into solution.
 - This should only take about 45 seconds for cold beer, warm beer will take longer, up to 1.5 minutes.
 - Kegs that are all the way full don't force carbonate as well. A little headspace goes a long way.
- Remove the gas lines and let the keg sit for 30 minutes. Make sure it's not leaking.
- Release all pressure from the keg.
- Turn down the pressure on the co2 (to around 5PSI) and hook it back up.
- Dispense from keg to test.
- Repeat as necessary.

NOTE: It's always easier to add carbonation than to take it away.

Charts:

There are many charts that you can find online and in books and magazines that give you exact "volumes of co2" based on certain temperatures, pressures and time. I've found that these methods of leaving your beer hooked up for long periods of time do not seem to gain the right pressure and they take much longer time. Also, if you're pressure is too high, and you forget about it, it's very easy to get beer that is over-carbonated. Try a few methods and keep good notes and you should be able to get your own system down.



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Bottling

Additional Equipment required: Counter-pressure filler or homemade picnic tap filler, dump bucket.

Bottling beer using Counter-Pressure Filler:

- Ensure the beer is already carbonated properly and is resting at near-freezing temperature.
- Ensure bottles are sanitized and ice-cold.
- Sanitize the filler assembly by resting in sanitizer or running sanitizer through the assembly.
- Hook up the counter-pressure filler assembly to the co2 tank and the keg to be bottled.
- It is best to mount the assembly in a place above the dump bucket.
- Release the pressure on the keg and set up the co2 at a very low pressure.
- Open the co2 valve and adjust the output of the filler, purging the bottle with co2 gas. Adjust pressure as needed. Close the co2 valve.
- Open the liquid valve to allow the beer to flow into the bottle and adjust the output of the filler as necessary.
- The beer may flow out of the output. Adjust the bucket to catch the drippings and adjust the pressure on the co2 as necessary.
- Allow the foam to push out of the output so you get the proper fill level in each bottle.
- Close the valve and remove bottle from the filler.
- Cap immediately.

Bottling beer using Homemade Picnic Tap Filler:

- Ensure the beer is already carbonated properly and is resting at near-freezing temperature.
- Ensure bottles are sanitized and ice-cold.
- Sanitize the filler assembly by resting in sanitizer or running sanitizer through the assembly.
- Hook up the filler to the keg that is to be bottled.
- Release the pressure on the keg and set up the co2 at a relatively low pressure (you'll need some foaming as noted below.)
- Setup your filler above a dump bucket.
- Fill the bottle to the proper level, allowing foam to pour over the side if needed.
- Open the tap only slightly at the end to spray a bit of foam. This will remove any remaining oxygen from the bottle.
- Cap on the foam

NOTE: This method works great for filling bottles or growlers to take with you to events or to give to friends. You don't even need to sanitize, as long as the containers are clean. It does help to get the containers ice cold and reduce pressure to decrease foaming so you can fill the bottle all of the way. If you do not sanitize and/or you do not remove all of the oxygen, the beer should be consumed within a couple of days or it will start to taste off from bacterial contamination and/or oxidation.