

## Kegging Your Beer

Kegging your homebrew and serving it on draft is easy, convenient, and has many advantages compared to bottle-conditioning your brews.

- There is only one container to clean, sanitize and fill, instead of 48-52 bottles per batch
- If you wish, you can burst carbonate your beer in a matter of hours, instead of waiting 10+ days for bottle conditioned beer
- Unlike bottles, you can adjust the carbonation at any time
- Kegged beer allows for easy blending and modification after packaging, including dry-hopping (with whole hops contained in a bag) wood-conditioning (with oak cubes or Spanish Cedar spirals) or adding fruit extracts directly to the keg
- Kegs can be used as secondaries (bright tanks), and are excellent for either warm or cold conditioning
- It is easy to quickly fill growlers, PET bottles, or even traditional glass bottles from a keg for sharing at parties
- It takes just a few extra fittings, and you'll be able to serve commercial beers on draft, too
- You can easily make sweet, sparkling meads, ciders as well as sparkling wines without having to use additional sorbates, sulfites and/or non-fermentable sugars
- With a keg, you can make sparkling water and inexpensive sodas as well
- It's your beer. On draft! It's cool and just tastes better!

Hoggetowne Ale Works' Kegging Kits come with everything you need to get started, except a kegerator. This can be a commercial kegerator (with a few new fittings to fit the homebrew kegs), a small fridge, or a chest freezer with external temperature controller (available at Hoggetowne). Used fridges and freezers can usually be found inexpensively on Craigslist, especially around the end of the semester as students graduate and want to sell their appliances before moving.

Keg kit components:

CO<sub>2</sub> tank - provides a source of soluble, inert gas to keep the keg pressurized (and the beer carbonated) for serving. Most homebrewers also use it to force-carbonate their brews instead of priming with dextrose for expedience and flexibility. Can be (re)filled at Alachua Fire Extinguisher Co. at 2939 SW Williston Rd. Larger CO<sub>2</sub> tanks are more expensive up front, but will save you money down the road, since the cost per fill isn't very different between small and large tanks. Important: store your CO<sub>2</sub> tank in an upright position to prevent damage to your regulator.

Regulator - regulates the amount (pressure) of CO<sub>2</sub> entering your keg (either by turning a screw or a knob), and warns you if your CO<sub>2</sub> tank needs to be refilled. Our regulators have shutoff valves so that you can stop the flow of CO<sub>2</sub> easily without having to mess with the main valve on the tank itself, and integral check valves to prevent beer from backing up into your regulator and destroying it. Note: when the tank is filled, the high pressure gauge will respond to temperature rather than the fill level of the tank. It's not until the tank is nearly empty that the high pressure gauge will start showing lower pressures. This is because the compressed CO<sub>2</sub> gas turns into a liquid inside the tank.

Gas line - thick walled tubing that connects your regulator to your keg via a quick disconnect.

Beer line - tubing that connects your keg, via a quick disconnect, to your tap. Unlike gas line, the length of your beer line matters - too short, and your beer will be excessively foamy. At least 8 feet are recommended (you can curl and zip-tie the line to keep your kegerator organized).

2 Quick Disconnects (QDs) - color coded grey for gas and black for liquid. They securely connect your gas and beer lines to the keg. For ball lock-type kegs, it is very important to match the QDs to the proper keg posts - gas posts have small notches in the bottom of the post. When disassembling for cleaning, be sure to take note of all the small parts and their order of assembly.

Keg - a 5-gallon ball lock (Pepsi) or pin lock (Coke) stainless steel soda keg. They were once used for storing the syrup for fountain drinks until the bag-in-a-box system became popular. If you purchased a used keg, you will need to clean all components and should replace all rubber O-rings with new ones to minimize the risk of gas or beer leaks, as well as soda-flavored beer. Used kegs will have dents, scratches and occasional stickers. These blemishes are strictly cosmetic.

Oetiker clamps -single-use metal clamps that secure your lines in place.

Swivel nuts - connect your lines to threaded fittings for easy removal

Picnip tap - an inexpensive plastic faucet for serving your beer.

Optional upgrades:

O-ring set: Highly recommended. Consists of a 5 new O-rings (1 lid, 2 post, one gas dip tube, one beer dip tube). \$ x.xx with kit purchase, \$x.xx separately

Keg lube: Highly recommended, a thick food grade lubricant that helps keep the O-rings flexible and your keg leak-free. \$ x.xx with kit purchase, \$x.xx separately

Gauge cage: Protects your regulator and yourself & family from damage should your CO2 tank every tip over.

Permanently mounted faucet: Chrome and stainless steel faucets and -shanks (brass available by special order) for permanent installation in your home bar. We also carry draft towers for mounting on kegerators. Ask for pricing.

Not carried by Hoggetowne Ale Works, but recommended:

Six-point 11/16" wrench and/or 12-point 7/8" wrench (can be used on both six and 12-point 7/8" posts) for removing and re-installing your keg posts.

For pin-lock kegs only: A deep socket pin-lock post removal tool.

Anatomy of your keg:

It is very important to note the manufacturer (Cornelius, Firestone, A.E.B., John Wood ) and model of your keg (e.g. Super Champion, VI, Super Challenger, etc.), as parts are not always interchangeable between different models. Your kegs consist of the following parts: Stainless steel body with attached rubber tops and bottoms, removable lid with pressure relief valve, two posts with spring-loaded poppet valves, short gas dip tube, long beer dip tube, 5 O-rings.

Preparing your keg:

1.) Depressurize your keg by pulling on the pressure relief valve (ball lock) or depressing the poppet on the gas-out post with a blunt Philips-head screwdriver (pin lock). Remove the lid. You may need to gently "hit it" to loosen the seal.

2.) Rinse the keg with water, then fill it with a with a brewery-grade cleaner (PBW or B-Brite) and let soak for 24 hours to remove any deposits from previous uses. It is recommended that you disassemble all keg components (posts & dip tubes) and let them soak in the cleaning solution as well. Upon first use, all O-rings should be replaced. Never use bleach on stainless steel!

3.) Rinse thoroughly with water, then sanitize the keg with a brewery-grade no-rinse sanitizer (StarSan, SaniClean or Iodophor). Reassemble all components, being sure to apply keg lube to the lid O-ring. Pressurize to about 5 PSI and force the sanitizer out via the beer line and picnic tap or faucet until the keg is empty (remaining StarSan foam/SaniClean or Iodophor residue are ok. Never rinse no-rinse sanitizers).

Kegging procedure:

1.) Depressurize the sanitized keg, remove the lid and transfer the beer into your keg by siphon. While the remaining CO2 will protect the beer from oxidation to some extent, you still want to minimize splashing. Add priming sugar only if you wish to carbonate the keg naturally.

2.) Before locking down the lid, open the flow of CO2 at a low rate of pressure to vent oxygen from the headspace. Then pull up on the lid to seat it securely

in place. Re-seat or apply more keg lube in case of leaks. Vent once again by pulling on the pressure relief valve (ball lock) or depressing the poppet on the gas-out post with a blunt Philips-head screwdriver (pin lock), then pressurize to 15 PSI.

3.) If force carbonating, place the keg in your fridge overnight to chill. If carbonating naturally, let keg condition warm for two weeks (longer for meads, strong ciders, sparkling wines and high-alcohol beers).

4.) There are several methods for force carbonation. "Set it and forget it", high pressure carbonating, and burst carbonating (the "shaking method"). The beer should be well-chilled for all of these methods.

- Set it and forget it: Determine the required pressure for the desired level of carbonation and serving temperature. Set regulator to this pressure and leave connected to the keg for ca. 2 weeks. This method is very reliable and produces excellent results, but does require patience and can potentially result in venting the entire content of your CO2 tank if you have a small leak in your keg.

- High pressure carbonating: Similar to "set it and forget it", except that you start the carbonating process at a higher pressure (usually about 30 PSI) to reduce the required time. After 2-3 days at the higher pressure, adjust the regulator down to the setting for the desired level of carbonation and serving temperature until the beer is properly carbonated. This method requires somewhat less patience, still can potentially deplete your CO2 tank in case of a leak, and may result in overcarbonation if left on the high pressure for too long.

- Burst carbonation: Unlike the previous methods, full carbonation can be achieved by actively shaking the contents of the keg while under pressure within 20-30 minutes. To do so, shake the keg until the regulator's hissing stops. Repeat after 5 minutes of letting the keg rest in the kegerator. This method is very quick, but may result in overcarbonation if too much pressure is applied, and may adversely affect head retention.

Temp	Volumes of CO2 Desired				
	1.8	2.1	2.4	2.7	3.0
32	1.6	4.4	7.3	10.1	12.9
35	2.7	5.7	8.7	11.7	14.7
40	4.7	7.9	11.2	14.4	17.7
45	6.7	10.2	13.7	17.2	20.7
50	8.7	12.5	16.3	20.1	23.8
56	11.3	15.4	19.5	23.6	27.6

Table 1: PSI setting required to achieve desired volumes of CO2 by temperature of the beer.

#### Serving and maintaining your Beer:

Adjust serving pressure until beer pours with the proper amount of foam. To preclude slow leaks from prematurely depleting your CO2 tank, it is sufficient to replenish the pressure once or twice a day by briefly opening and then closing the shut-off valve.

You may remove the kegs from the kegerator at any point of the process and store the kegs at ambient temperatures, but this will accelerate aging. Repeated warming and chilling of the beer should be minimized.