

How to Dispense Draught Guinness

(This tutorial also pertains to Beamish Stout, Murphy's Stout and Boddingtons, although the keg couplers are different.)

We've had lots of inquires about dispensing Guinness, therefore we've created this short piece. In the United States we get basically three kinds of Guinness from Ireland. One is the bottled version which is very bitter and high in alcohol content. Then we have the draught version, dispensed from metal kegs and found in many bars and restaurants around the country. The draught version is low in alcohol and calories. It is characterized by its tight, creamy head of foam. The third version is the draft can. This is a 14.9 oz can sold in stores. The can has a small widget in the bottom that contains a small nitrogen charge. When the can is opened, the nitrogen is released which makes the beer come alive. The can version is close in taste to the actual keg version.

We will focus now on the draught version of Guinness (kegged).

Draught Guinness is a completely different animal from all other draft beers. There are three basic differences.

1) Instead of using CO2 to push the beer through the lines, a nitrogen/CO2 blend is used for Guinness. Its a mixed gas, all in one air tank. 25% CO2, 75% nitrogen. Set the regulator for 30 psi on the gauge. The nitrogen is what gives Guinness its creamy, tight head that makes it pour and look unique. Just about every city in the country has a mixed gas dealer. Look under "gas" in the yellow pages. The Guinness Import Company goes to great lengths to make sure that gas dealers are properly blending air tanks with mixed gas. Ask your local Guinness distributor who they recommend. Some gas dealers will only fill a nitrogen tank with the mixed gas. Other dealers will fill a CO2 tank with the mixed gas. The only difference between the two kinds of tanks are the threads on it. You can still use your CO2 regulator with a nitrogen tank, all you need is a CO2 -Nitrogen Adapter.

2) Now we have the keg **coupler**. This is the piece that fits onto the keg itself. Draught Guinness and Harp Lager use a coupler that is unique to those brands. It looks somewhat like the same coupler that Budweiser uses but there are differences.

3) The last thing is the faucet. If you've watched a bar person pour a pint of Guinness, look at the faucet. It is different than all the other faucets. Sometimes it is called a **European Specialty Faucet**. There is a different type of handle on the faucet, it is pulled forward and down for the beer to come out. Also in the faucet is a tiny restrictor disc. The beer is forced through the disc, this is what helps give Guinness its unique head. There is also no waste (foaming over) with dispensing Guinness. These Specialty Faucets can be converted to dispense any other type of beer (i.e.: Bud, Miller, Coors etc.) by removing the restrictor disc/ flow straightener.

The bottom line to all this is that it is not impossible to pour Draught Guinness at home. The pieces to do it are just different. It is possible to convert an existing system to dispense Guinness. You'll need to change your faucet, air tank, coupler and regulator.

You will be the envy of all your friends!!

Draft FAQ's - Frequently Asked Questions

Q. What size keg will fit into my refrigerator?

A. A standard **US quarter barrel** measures a height of 12-13", diameter of 16" and weighs 80-85 pounds. A standard **US half barrel** measures a height of 23", has a diameter of 16" and weighs 160-180 pounds. **European kegs** varies in size, but are close to the above. The **CO2 tank** has a diameter of about 6" and may be kept in the refrigerator or outside of it. We suggest that before you purchase a fridge, go to your local beer retailer and ask for any empty keg (They will usually charge you a \$10.00 deposit). Then put the keg inside the fridge you plan to purchase to make sure that the fridge is big enough. There should be a little bit of room around the sides for air circulation. Also leave about 6"-8" above the keg for the keg coupler to fit.

Q. What size refrigerator should I buy?

A. That's a tough one for us to answer. It depends upon your space requirements. We can't recommend any specific size or model because there are so many out there. If you're trying to find a fridge that will fit under your bar, that can be very difficult because most are not large enough to hold a keg. Also keep in mind that many compact fridges have a vegetable bin in the bottom. Right behind that is usually the compressor. You will probably need to build some sort of shelf over the compressor.

This is one of the reasons that many compact fridges will not hold a keg. Also make sure that your beer line will not be passing through a freezer compartment. The beer could freeze or cause excess foam.

Q. How much beer is in a keg?

A. Breweries no longer make full or whole kegs any more. They stopped about 35 years ago because they were just too damn heavy. A 1/2 keg is the largest available, it holds 15.5 gallons of beer which is equivalent to about 7 cases of beer. A 1/4 keg holds 7.75 gallons of beer or 3 1/2 cases of beer. A beerball holds 5 gallons of beer which is equal to 2 1/4 cases of beer. There are some 5 gallon mini-kegs (1/6 barrels) now available.

Q. At what temperature should draft beer be kept?

A. Draft beer is not pasteurized, so it must be kept cold-preferably 38-40 degrees F. Temperatures above 45 degrees may cause the beer to become wild, turn sour & cloudy.

Q. How long will my draft beer stay fresh once I have tapped the keg?

A. Once its tapped, draft beer should be consumed within 20-30 days otherwise it tends to lose its fresh brewery taste and aroma. (Assuming it is kept at approx. 38 degrees & between 12 & 15 psi.). Craft beers (micro brews) sometimes have a shorter shelf life.

Q. How long does the 5 lb. CO2 cylinder last?

A. 5 pounds of CO2 should dispense approx. 5-7 half barrels. Make sure that all air line connections are good and tight. CO2 can leak very easily. Its best to leave the tank outside of the fridge if possible. You will get more air out of the tank if its kept at a warmer temperature.

Q. Where can I get my CO2 tank filled?

A. Look in your local phone books yellow pages under the heading "Gas". There should be several gas distributors in your area. Call a few of them up and ask if they fill small tanks with CO2 (Sometimes called Beer Gas). Also, call some local fire extinguisher suppliers and welding suppliers, they sometimes fill CO2 tanks. To fill a 5 pound CO2 tank usually costs between \$7.00 and \$11.00 depending upon where you're standing.

Q. Why is my beer coming out all foamy?

A. Foamy beer can be caused by many things. Warm spots in the beer line, dirty beer lines, twists or kinks in beer line. Warm beer will cause foamy beer. Also, let the keg settle for 2-3 hours before tapping it. Too much carbonation in the keg will cause foamy beer. Click here to view our [Trouble Shooting Guide](#).

Q. I'm planning on putting a draft beer tower on my bar and keep the keg in a refrigerator nearby, is there anything I should be aware of?

A. Yes!! Any exposed beer lines may cause foamy beer. In other words, if the beer line running from the fridge to your tower is not refrigerated, you will probably encounter some foam. There are commercial ways of actually refrigerating the beer lines, but they are VERY expensive. Some things that you can do to minimize the foamy beer problem are: Minimize the distance of exposed beer line- the shorter the better. Wrap all the exposed beer line in some sort of thick foam tubing. Home Depot has it

and its not expensive at all. Remember to plug the hole in your refrigerator that the beer line comes out of. That spray foam insulation stuff works great. All this will help minimize foamy beer

Trouble Shooting Answers

Condition: Cloudy Beer

Beer in glass appears hazy and not clear.
Causes and Corrections:

1. *Overchilling.*

Excessive low temperatures may cause hazy, cloudy beer, particularly when beer lays for a long period of time. Maintain refrigerator temperature at 36° to 40°F.

2. *Partial opening of beer faucet.*

Open the faucet quickly and completely.

3. *Unrefrigerated foods placed on keg.*

When unrefrigerated products, such as meats, vegetables, fish or fruits are placed on a keg of cold beer, the beer becomes warm long before these products chill down. This change in temperature can cause cloudy beer.

Condition: Flat Beer

Foamy head disappears quickly, beer lacks usual zestful brewery-fresh flavor.
Causes and Corrections:

1. *Greasy glass.*

Do not wash beer glasses together with glasses that have contained milk or any other fatty substance. Lipstick is a fatty substance, be sure it is removed from the glass. Eating greasy foods while drinking beer can cause this too. Wash glasses thoroughly with a good detergent; do not use soap. Do not dry-wipe glasses. Allow glasses to air dry. Rinse in fresh cold water just before serving beer. It is best to serve beer in a wet glass. Beer Glasses should be used for beer and nothing else but beer.

2. *Improper drawing of beer into glass.*

Open the faucet quickly and completely.

Check and find the correct distance to hold the glass from the faucet when drawing. Proper foam should be a tight creamy head, and the collar on the average glass should be 1/2" to 1" high. Beer drawn without a head has the appearance of being flat.

3. *Not enough pressure.*

Check CO2 tank; if empty, get refilled.

Increase pressure if beer runs too slowly. Correct flow is to fill a 10 oz. glass in 4 seconds (approximately 8 oz. of liquid).

Check that there are no obstructions in the air line.

Check and replace air line or CO2 regulator and gauge. Regulators will wear down, replace after 4-6 years.

Make sure CO2 pressure is ON; do not run the system off the keg pressure alone.

Make sure temperature of refrigerator is not above 40° F.

Condition: Loose Foam

Large soap-like bubbles, foam settles quickly.

Causes and Corrections:

See "*Flat Beer*" *Causes and Corrections*

Condition: Off-Taste Beer

Often bitter and bitey, sometimes completely lacking in flavor and zest. May also have oily or foul odor, carrying an unpleasant taste.

Causes and Corrections

1. *System not clean.*

Clean the entire system monthly or immediately after each keg is emptied. The faucet should be removed, disassembled and cleaned with hot water and a brush weekly. Inexpensive cleaning compounds, equipment and kits are available. [Click here for Cleaning kits.](#)

2. *Contaminated air line.*

Examine air line and replace if necessary. Dirty air lines should be washed with a good cleaning compound normally used for cleaning beer lines, then rinsed clean.

3. *Old Beer*

The beer in the keg may be old and past its prime. Buy a fresh keg.

Condition: Foamy Beer or Wild Beer

Beer, when drawn, is all foam, or too much foam, and not enough liquid beer.

Causes and Corrections:

1. *Beer too warm.*

The beer keg must always be kept between 38°F and 40° F.

2. *Excessive CO2.*

Lower the amount of CO2 going to the keg. This done by adjusting your regulator. Adjustments may not happen immediately. In a normal keg fridge set up, you should keep your regulator set between 10 and 12 psi. If a keg is over pressurized, pull the relief valve on your keg coupler for about 3 seconds. This will release some CO2 out of the keg. wait about 15 minutes, then turn your CO2 tank back on. Older regulators should be replaced completely as they do not last forever. [Instructions for Connecting and Operating a Regulator](#)

3. *Old Beer Lines*

Replace old beer lines. If you bought or inherited an older system, it would be wise to replace the beer line. [Click here for replacement lines.](#)

4. *Improper drawing of beer into glass.*

Open faucet quickly and completely.

Check and find the correct distance to hold the glass from the faucet when drawing. Proper foam should be a tight creamy head, and the collar on the average glass should be 1/2" to 1" high. Never use frozen or frosted glassware!!

5. *Obstruction in faucet.*

The faucet should be removed, disassembled and cleaned with hot water and a brush every few weeks.

6. *Worn faucet parts.*

Replace worn washers as required. If faucet does not open wide, worn parts or entire faucet must be replaced. [Click here for Faucet Rebuild Kits and New Faucets.](#)

7. *Warm spots in your beer line.*

Any warm spots in your beer line will cause foamy beer. All beer tubing should be kept inside your fridge. Long beer lines runs (6 feet or greater) can cause your CO2 pressure to be out of whack. A larger inside diameter of beer tubing may be necessary.

Instructions for Picnic Pumps

Instructions for Picnic Pumps

- 1) The keg should ALWAYS be kept cold. Keep your keg refrigerated or ice down at least 3/4 of the way up the keg. If not you'll have warm and foamy beer. Keep the keg and tap out of direct sunlight.
 - 2) The keg must settle for an hour or two after you ice it down. Do not tap the keg until after it has settled. If you tap it right after getting it home you may get excessive foam.
 - 3) After the keg has settled, go ahead and tap it. Line up the two notches on the keg with the two indentations on the bottom of the tap. Rotate the tap one quarter turn clockwise to tap it. Then, depending upon what style of tap you have, pull the lever handle out and push down to locked position. If you have a wing style tap, just turn the wing handle clockwise a quarter of a turn.
 - 4) DO NOT PUMP THE TAP RIGHT AWAY! There is plenty of carbonation in the keg to get it started. Open the faucet to start the flow of beer. Only pump the tap when the beer flow begins to slow down. Don't over pump, this will cause foam.
- Open the faucet quickly and all the way. You may find at first the flow to be faster than desired, this is normal due to the CO2 pressure in the keg.
- 5) Keep in mind that you are pumping oxygen into the keg. Oxygen is bad for beer and will cause it to go flat in a day or so. If you have some beer left over and want to use it the next day, take the tap off the keg and keep the keg iced down. It may lose some of its freshness the next day but still may be ok to drink.

Keg Specs:

Keg Size Contents 10 oz. Servings 12 oz. Servings (approx)

1/4 keg 7.75 Gallons 115/100

1/2 keg 15.5 Gallons 230/200

Regulator Instructions for Connecting and Operating

1. Place a NEW fiber washer or nylon washer inside the coupling nut of the regulator and screw the nut to the cylinder valve outlet. Tighten with a wrench. Make sure that it is really tight. This is the spot where most air leaks occur. The new washer will compress to about half of its original size and fill any gaps or spaces. If not tight enough, this connection will leak at some point. Do not use old or scored washers. Some regulators may have a built-in "O" ring in the regulator stem. In these cases, a CO2 fiber washer is not necessary, but as the ring wears, a new ring or CO2 washer will be needed.
2. Turn the shut-off valve at the base of the regulator to the "OFF" position (to the left or right).
3. Open the drum cylinder valve all the way out (that's the big screw on the face of the regulator). This is important because the cylinder valve seats in two places.

4. Turn adjusting screw clockwise until correct pressure is indicated on gauge (approx. 10-12 psi).
5. Attach keg coupler to keg. Open the valve on your CO2 tank all the way open. Pressurize keg by placing the handle of the shut-off valve on the regulator in the "OPEN" position (straight up and down).

Other Suggestions

1. Store a CO2 tank upright, NEVER on its side. A full CO2 tank at room temperature will read approximately 700-800 lbs. PSI. At 40° F. it will read approximately 600 lbs. psi.
2. Turn gas pressure ON immediately after connecting the keg coupler to the keg. Do not run system off keg pressure alone as this will use up the natural carbonation, making the beer flat and possibly causing a back flow of beer to the regulator. Turn gas OFF when changing kegs, cleaning hoses or as soon as the keg is empty.
3. Be careful with the regulator, as the gauges on it are somewhat delicate and can easy break. Keep the CO2 tank chained to a wall to prevent it from tipping over.
4. Never allow draft beer to warm up. Keep the beer refrigerated. Draft beer is at its delicious best when served at 36° to 40° F. If the temperature is too cold, the beer will absorb too much CO2 and overcarbonate. If the temperature is too warm, the beer will become foamy and go into secondary fermentation. Use a thermometer to assure that proper temperature is maintained.
5. When drawing beer, always pull the faucet fully open, NEVER half way.

How to read the 0-3000 gauge on a Double Gauge CO2 Regulator with a 5lb CO2 tank.

On the CO2 regulator with a 5lb Tank there are two different readings:

IF YOU HAVE THE TANK IN THE FRIDGE THE 0-3000 GAUGE WILL READ 500 - 600PSI WHEN THE TANK IS FULL.

IF YOU HAVE THE TANK OUTSIDE THE FRIDGE THE 0-3000 GAUGE WILL READ 700 - 800PSI WHEN THE TANK IS FULL.

WHEN THE TANK IS EMPTY IT WILL SHOW 100PSI.

ALSO WHEN THE AIRTANK IS INSIDE THE FRIDGE YOU WILL LOSE ABOUT 5 PERCENT OF THE CO2.

ALSO TAKE INTO CONSIDERATION THAT YOUR AIRTANK MAY BE ALMOST EMPTY DUE TO EITHER AN AIRLEAK OR THE TANK NOT BEING FILLED COMPLETELY.