

TROUBLESHOOTING

Advanced Draft Training Manual

Quick Checklist:

✓ **Temperature:**
• 38° F

✓ **Pressure:**
• 12 - 16 (100% CO₂)
• 20 - 25 PSIG (Blend Gas)

✓ **Clean:**
• Before New Keg

Ready to pour: Start with a beer clean glass that has been wetted in cold water.







Place the glass at a 45° angle, one inch below the faucet. Do not let the glass touch the faucet. Open the faucet all the way.

After the glass has reached half full, gradually bring the glass to an upright position.

Let the remaining beer run straight down the middle. This insures proper release of CO₂ by producing a 3/4" to a 1" foam head.

Close the faucet completely and quickly.

Common Draft Problems

Condition	Temperature	Pressure	Equipment	Improper Pour	Glassware
 Wild Beer Beer, when drawn, is all foam, or too much foam and not enough liquid beer	Too warm	Too high	Needs cleaning	Check Pour	Ice inside of glass
 Flat Beer Foamy head disappears quickly; beer lacks brewery fresh flavor	Too cold	Too low	Needs cleaning		Detergent film inside of glass
 Cloudy Beer Beer in glass appears hazy, not clear	Too cold	Contaminated CO ₂ gas	Needs cleaning		Needs cleaning
 False Head Large soap-like bubbles, head dissolves very quickly	Too warm	Too low		Check Pour	Household detergent and dust

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GLYCOL BATH SYSTEMS

The most common problem with draught beer is temperature. Draught beer is brewed to be stored and served between 38° F.

A Glycol System is designed to maintain liquid beer temperature from the cooler to the point of dispense.

PROBLEM	THINGS TO CHECK	POSSIBLE SOLUTION
Beer foaming	Check temperature at faucet (38° F) temperature too cold	Adjust glycol bath temperature (29° - 32° F)
	Check temperature at faucet (38° F) temperature too cold	Inform customer needs qualified serviceman to adjust cooler temperature
	Check temperature at faucet (38° F) temperature too warm	Adjust glycol bath temperature (29° - 32° F degrees)
	Check temperature at faucet (38° F) temperature too warm	Inform customer needs qualified serviceman to adjust cooler temperature.
	Wrong gas (glycol systems usually require a mixed gas blender)	Change to mixed gas blender. Use target pressure.
	Glycol pump functioning (check return line)	Inform customer needs qualified serviceman to adjust glycol chiller
	Gas regulators set wrong	Inform customer to contact Installer
	Coupler washers bad	Replace coupler washers
	Faucet washers bad	Replace faucet washers
	System dirty	Clean system or call customer's line cleaning service.
	Power Pack - Condenser	Clogged condenser fins
No beer at faucet	Empty gas bottle	Replace with full gas bottle
	Regulator shutoff closed	Open air shutoff
	Keg empty	Replace empty keg
	Check ball in coupler stuck	Free check ball
	Line/faucet dirty	Clean system or call customer's line cleaning service.
	Fob Detector	Reset Fob Detector



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FREQUENTLY ASKED QUESTIONS

Q. What are the specifications for a keg?

	Home Brew	Sixth Barrel	Quarter Barrel	Slim Quarter	Half Barrel
Gallons	5	5.23	7.75	7.75	15.50
Ounces	640	669	992	992	1984
# of 12 oz. beers	53	55	82	82	165
Height	25"	23.3"	14.8"	23.3"	23.3"
Diameter	8.5"	9.25"	17"	11"	17"
Weight (Full)	49 Pounds	56 Pounds	81 Pounds	81 Pounds	161 Pounds

Q. How long will a keg of beer remain fresh?

If dispensing with CO₂, and maintained at the proper temperature and pressure:

- Non-pasteurized draft beer will remain fresh for about 45-60 days.
- Pasteurized draft beer will remain fresh for about 90-120 days.

If dispensing with a party pump (air):

- Any draft beer will remain fresh for no more than 8-12 hours.

Q. What temperature do I need to store draft beer at?

Most domestic draft beer is not pasteurized, so it must be kept cold. The temperature of the beer must be maintained between 36-38° F. all the way to the point of dispense. Temperatures above 38° will cause foam and promote sour/cloudy beer. Simply put, keg beer storage can be compared to milk storage: "if it is not kept cold, it will spoil."

It's important to know the "liquid" temperature of the beer - rather than the air temperature in the refrigerator.

- The easiest method for monitoring the liquid temperature (inside the keg) is to put glass of water in the refrigerator with a thermometer in it. Allow the water to chill for 24 hours, and then you will have a continuous accurate reading of the "liquid" temperature.
- The dispense temperature may be different than the keg temperature depending on the distance between keg and glass. To test dispense temperature: pour beer into glass and discard, draw second beer into same glass and using an accurate thermometer, read temperature.



FREQUENTLY ASKED QUESTIONS

Q. Please explain pasteurized and non-pasteurized keg beer?

Pasteurized

Import keg beers are heat pasteurized during brewing. (Many domestic cans and bottles are heat pasteurized after packaging.) This process kills off the bacteria that spoils beer flavor. Therefore, import beer can be stored at room temperature and chilled at the point of dispense. However, most establishments keep their import kegs at the same temperature as the domestic kegs.

Non-Pasteurized

Domestic keg beers are not pasteurized during brewing. During the packaging process non-pasteurized beer is chilled and bacteria becomes dormant. When temperature rises above 50-55°, bacteria growth begins to spoil flavor and cloud the beer.

Q. What pressure do I need to set the CO₂ regulator at?

For a keg refrigerator at 38°, the recommend CO₂ pressure is between 12-14 Lbs for most domestic beers. This pressure will maintain the level of carbonation that the breweries specify.

If the beer is dispensed with too low of a pressure, over time the CO₂ that is dissolved in the beer will break out. This will result in flat beer. If the beer is dispensed with too high of a pressure, over time more CO₂ will be absorbed into the beer and the result will be foamy beer.

Q. How many kegs of beer can be dispensed out of a CO₂ tank?

As a general rule of thumb, it takes about a 1/4 Lb of CO₂ to dispense a 1/4 barrel of beer and a 1/2 Lb of CO₂ to dispense a 1/2 barrel of beer.

	<u>1/4 barrels</u>	<u>1/2 barrels</u>
5 pound CO ₂ cylinder	18-20	9-10

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FREQUENTLY ASKED QUESTIONS

Q. Where can I get a CO₂ cylinder filled?

Inquire with the store you are getting your kegs from for a local source. Another option is to look in your phone book under Fire Extinguishers or Fire and Safety Equipment. Companies that refill fire extinguishers will be able to fill CO₂ cylinders.

The average cost for filling a 5 Lb CO₂ cylinder is \$12. This cost will vary with each market area.

Q. Can I tap the keg as soon as I get it home?

During transit, the keg's beer temperature will rise slightly and the beer will be agitated. Allow the keg to acclimate to refrigeration (CO₂ application) or on ice (party pump application) for 2 - 4 hours prior to dispensing to prevent foamy beer.

Q. Do I need to clean the equipment and how often?

Regular cleaning of the faucet, beer line, and keg coupler is extremely important. If this is not done, bacteria, yeast, mold, and beer stone will build up and quickly degrade the quality of the beer dispensed.

For residential applications, cleaning should be performed after every keg or at a minimum of every two weeks. Routine cleaning is essential to maintain quality and fresh taste.

For commercial applications, cleaning should be performed at least every two weeks or following brewery recommendation.

PLEASE NOTE:

Only use chemicals specifically manufactured for beer line cleaning. And it is very important that all directions on these chemicals be followed.



FREQUENTLY ASKED QUESTIONS

Q. Do all brands of beers use the same keg tapping equipment?

Not all brands of beer use the same type of valve in the keg. Each distinct “system” requires matching the appropriate keg coupler to the keg valve. In the US, there are seven different “systems” in use. These are:

- **“D” System (American Sankey)**
Most domestic beers i.e. Budweiser, Coors, and Miller
- **“S” System (European Sankey)**
Most import beers i.e. Heineken, Becks, and Amstel Light
- **“A” System (German Slider)**
Many German beers i.e. Spaten, Warsteiner, and Paulaner
- **“G” System**
A wide variety of beers i.e. Anchor Steam, Bass, and Caffrey’s
- **“U” System**
Many English beers i.e. Guinness, Harp, & Boddington
- **Twin Probe**
Limited use by some microbreweries
- **Home Brew Coupler**
Ball lock fittings used for home brew tanks

Q. Do I need special equipment to dispense a stout beer such as Guinness?

To retain the taste the breweries intended, nitrogenous beers need to be dispensed with a stout type faucet and a 25% CO₂ / 75% Nitrogen mixed gas (commonly referred to as Guinness gas). The dispense pressure should be 30-40 Lbs. This gas is inappropriate for ales and lagers, as it will change the flavor of these beers.

Some mixed gas cylinders have a CO₂ valve while others have a Nitrogen valve. Find out from your supplier what kind of cylinder valve they have. A CO₂ regulator can be adapted to a nitrogen valve cylinder by using an adapter (part number NA-1).

Stout beers are dispensed using a unique faucet. The stout faucet pulls forward to pour the beer, and then the lever is pushed back to agitate the beer resulting in the creamy head.

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FREQUENTLY ASKED QUESTIONS

Q. What do I need to do if I'm not going to use my keg for a while?

Make sure the keg remains at the proper temperature and pressure. If the keg coupler remains tapped into the keg, or is untapped, is not an issue. Clean the system before dispensing again. All draft beer will deteriorate over time. Consume keg beer before the flavor diminishes.

Q. How can I keep secure my beer from unauthorized pouring?

If your refrigerator door has a lock, simply un-tap the keg coupler and lock the refrigerator door.

Another option is to purchase a faucet lock. These items slide onto the faucet, and then lock it into the closed position with a key.

Q. What are some common troubleshooting issues?

Almost all dispensing problems are the result of:

- Improper temperature
- Improper pressure
- Cleaning issues

Quick checklist:

- Keg is stored 38° F, and the same temperature is maintained all the way to the point of dispense.
- CO₂ pressure is between 12-14 Lbs
- Faucet, beer line, and keg coupler have been cleaned (with chemicals specifically manufactured for beer line cleaning) on a regular basis.

WILD BEER:

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

- Beer temperature is too warm.
- CO₂ pressure is set too high.
- Faucet in bad, dirty, or worn condition.
- Kinks, twists or other obstructions in the beer line.
- Beer drawn improperly.

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FREQUENTLY ASKED QUESTIONS

FLAT BEER:

Foamy head disappears quickly; beer lacks brewery fresh flavor.

- Beer temperature is too cold.
- CO₂ pressure is set too low.
- Dirty glassware.

CLOUDY BEER:

Beer in glass appears hazy, not clear.

- Frozen or nearly frozen beer.
- Beer that has been un-refrigerated for long periods of time.
- Old beer.
- Dirty faucet, beer line, and/or keg coupler.
- Dirty glassware.

FALSE HEAD:

Large soap-like bubbles, head dissolves very quickly.

- Dry glasses.
- Improper pour.

Q. What is the proper way to draw a perfect glass of beer?

1. Start with a glass clean of any residue, including soap film.
2. Place the glass at a 45° angle, one inch below the faucet. Do not let the glass touch the faucet. Open the faucet all the way in one motion.
3. After the glass has reached 1/2 full, gradually bring the glass to an upright position.
4. Let the remaining beer fill straight down the middle of the glass. This insures proper release of CO₂ by producing a 3/4" to 1" foamhead.
5. Close the faucet completely in one quick motion.

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