

Beer keg Backpack dispensing system

A beer keg dispenser in a bar:

A beer dispensing system, often also called a keg dispensing system or beer dispensing system, is a device used to fill beverages from storage containers, e.g. barrels (often kegs), tanks, or so-called BIBs (Bag in Box), into drinking containers.



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plant components

A beer tap backpack system in common design

- A dispensing system consists of one or more taps (usually compensator taps) and fittings for the connection of storage tanks, usually barrels, in addition a pump or a compressed gas tank, also called carbon dioxide or nitrogen bomb, with a suitable pressure reducer.
- For the heating or cooling of beverages, the dispensing system can be equipped with the appropriate equipment. In this case, continuous coolers are usually used, which cool the beverage during pouring.
- A distinction is made between wet and dry beer backpack coolers, whereby a cold water basin is used for the somewhat obsolete wet coolers, whereas dry cooling uses a cold aluminium block through which cooling coils with the drink run.
- Dispensing systems are usually used in gastronomy or where beer are dispensed in large quantities. The quantity to be filled can be dosed manually or automatically.
- In the meantime, there are also beer dispensing systems in which ready-to-drink cocktails from beer canisters are

filled into drinking containers at the push of a button. Smaller home keg dispensers for small beer kegs and private use are also available on the market.



As a rule, part of beer tapping systems, especially for draught beer, is a collecting device for the over-foamed or drained beer foam. It consists of a tub under the tap, usually covered with a perforated, grid or slotted plate, in which the liquid is collected and collected. In the past, the so-called leak beer was often served at a lower price to financially disadvantaged customers.

The so-called beerkeg dispensing loss can be minimized by technical dispensing controls connected with the system, the correct dispensing technique and the correct pressure on the pressurized gas line.



Beer Dispensing pressure

1. A compressed gas such as CO₂ is used to transport the beverage from the storage container to the tap.
2. This gas flows into the container and ensures the buoyancy of the beverage via a riser pipe and the maintenance of the carbon dioxide content of the respective beverage.
3. A pressure reducer is connected to the compressed gas container because the pressure directly at the valve would be too high.
4. It is essential to set the correct tapping pressure at the valve for tapping. This should depend on the following factors:

5. The CO₂ content of the beer : The more CO₂ in the beverage itself, the higher the counterpressure must be to prevent the carbonic acid from dissolving.



6.

The temperature of the beverage: The higher the temperature of the beverage in the container, the more easily the carbon dioxide dissolves and the higher the counterpressure must be.

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The difference in height from the container to the tap: The higher the beverage has to be transported in the taps, the higher the driving pressure has to be.

The line length and its diameter: The longer the line and the smaller its cross-section, the higher the friction with the beverage and thus also the backpack driving pressure.

The proportion of the pressure that depends on the temperature and CO₂ content is called the saturation pressure of the beverage. The other proportion is used exclusively for transport to the tap. The pressure is then reduced again at the tap to avoid carbon dioxide loss and to produce a moderate flow of the beer keg backpack . This is usually referred to as an adjustable "compensator tap".



As an alternative to compressed gas, there are also dispensing systems with a diaphragm pump that use a moving diaphragm to create a negative pressure, which transports the beverage into the line and to the tap instead of, for example, CO₂. Most models do not allow an exact

pressure setting because the air flows directly from the pump.



Contamination

- The beer backpack containers as well as pipe and hose lines of dispensing systems are at risk of contamination. In particular, parts that come into contact with air, such as the tap (tap) or the tap fitting (e.g. tap head), are particularly at risk from a hygienic point of view.
- For this reason, corresponding ordinances[2] in Germany prescribed regular cleaning until June 2005.
- From 1 July 2005, the general hygiene regulations for foodstuffs, e.g. for the whole of Europe the so-called BasisVO, VO (EG) No. 178/2002 in conjunction with the so-called Hygiene Package and in additionally the together with the (Food Hygiene Code), will regulate the hygiene of beer.

