NuCO2
BEVERAGE CARBONATION MADE EASY

Carbonation & Draft Beer Fact Sheet

Carbonation

"Natural carbonation" in beer results from the build-up of gases during the fermentation process. However, proper carbonation levels ensure that draft beer is preserved and poured with the appropriate amount of foam and optimal yield.

British scientist Joseph Priestley produced the first carbonated beverage more than 240 years ago in 1767.

In fountain soft drinks, carbonation occurs when carbon dioxide is dissolved into water which is then mixed with beverage syrup to create a fountain soft drink.

A study published in *Science* magazine revealed that carbonation is tasted on the tongue by the same taste receptors that recognize sourness.

Draft Beer

Without gas – carbon dioxide or a combination of nitrogen and carbon dioxide – draft beer cannot be poured from a keg. And, the wrong gas or wrong gas blend can ruin the beer by making it over or under carbonated.

Draft beer sales account for about 10 percent of total beer sales per year across the United States.

Bars and restaurants typically use one of two types of draft beer systems:

- Low-pressure systems are used for short distances between the keg and faucet. For ales and lagers, carbon dioxide alone can be used to preserve and push the beer properly. For stouts, a beverage gas blend of 25 percent carbon dioxide and 75 percent nitrogen is needed.
- High-pressure systems are used for long distances between kegs and faucets. These systems require a blend of carbon dioxide and nitrogen gas. For ales and lagers, this gas blend is 60 percent carbon dioxide and 40 percent nitrogen, while stouts need a blend of 25 percent carbon dioxide and 75 percent nitrogen.

It takes 16 minutes to empty a keg of beer at two ounces per second dispense rate.

Perfect Pint

The optimal draft beer pour for maximized customer enjoyment and restaurant profitability – the "perfect pint" – is a 14-ounce pour comprised of 13.5 ounces of beer and 0.5 ounces of beer within a ¾ inch head of foam.

Kegs of draft beer should be maintained at a constant temperature between 34 and 38 degrees Fahrenheit to achieve optimal carbonation.

A glass of beer has about 85 percent profit margin for the operator.

Soft Drinks

An estimated 625,000 restaurants in the United States serve fountain soft drinks.

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