

Expert on-site N₂ solutions for breweries

Brewing beer is a precisely calibrated process that requires expertise, carefully selected ingredients, and the right equipment. In several stages, especially in packaging and in tank purging and blanketing, nitrogen is vital. As brewers say, "oxygen is beer's worst enemy." Nitrogen prevents issues that would arise from contamination with oxygen.



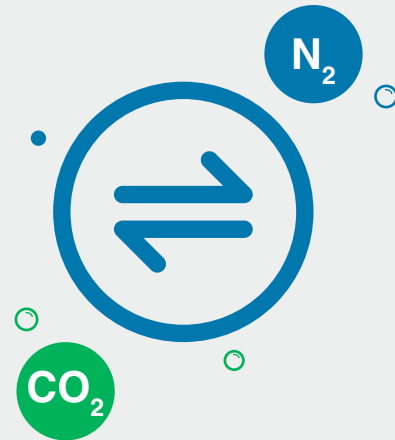
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For beer, any contact with oxygen can lead to quality issues. That is why an inert gas is used to move beer between vessels and to blanketing tanks in order to control the conditioning stage. When kegs are cleaned between use, they are often filled with nitrogen.

Why breweries should switch from CO₂ to N₂

Both N₂ and CO₂ are inert gases used to flush, purge, infuse and package beer. However, for many processes, CO₂ can be replaced with nitrogen. In fact, N₂ is the preferred solution, except for carbonation requirements. Some breweries prefer N₂ over CO₂ to nitrogenate their beer, as it creates a smoother texture with fine bubbles. In addition, as CO₂ is highly soluble in beer, it could introduce excess carbonation.

From a business point of view, nitrogen can offer huge cost savings as it is much less expensive than CO₂ and it is not subject to CO₂'s volatile pricing. In addition, CO₂ tends to experience supply chain issues, leaving breweries without the inert gas they need. An on-site nitrogen generator eliminates this production roadblock.



N₂ requirements of breweries

Because of the importance of nitrogen and its multipurpose use throughout the production and packaging process, breweries have a specific set of N₂ requirements:

- **Food-grade nitrogen:** Breweries must follow European and global standards for food-grade nitrogen to prevent any oxygen contamination and the loss of entire batches of beer.
- **Flexibility:** Any brewery nitrogen solution must meet the demands of all its N₂ applications, from blanketing and purging to packaging. It must also cater to the needs of different sizes of breweries, from large operations to craft breweries.
- **Sustainable production:** Sustainability has become a key condition that nitrogen solutions must also meet.
- **Reliability:** Because N₂ plays a key role in the brewing and packaging process, the nitrogen solution must be absolutely reliable in performance, quality and purity.
- **Cost reduction:** Margins are typically tight in the brewery business. The right N₂ solution will contribute to keeping operational costs in check.

On-site nitrogen generation – the preferred solution

Many breweries still purchase their nitrogen – even though generating your N₂ on-site offers more advantages. Here are just four:



Greater
cost-efficiency
saves you money



Eliminating bottle or liquid
deliveries reduces your
environmental footprint



Take charge
of your own
nitrogen supply



Less hassle by
removing supply
logistics

The right N₂ solution for every brewery

When it comes to breweries, one size does not fit all. Pneumatech knows that the realities of a large production facility are much different from the requirements of a small craft brewery. That is why we don't offer a uniform brewery solution that would work for only a few. Fortunately, our product range is extensive and flexible, allowing us to present every brewery with a solution that meets its specific needs.

PPNG HE for large breweries

The PPNG HE is Pneumatech's premium high-flow PSA nitrogen generator, giving breweries best-in-class performance, efficiency, and purity:

- **The right nitrogen:** The PPNG HE can generate food-grade nitrogen with a purity between 99.5% and 99.999%.
- **Cost savings:** The PPNG HE offers best-in-class efficiency to keep energy costs to a minimum.
- **Sustainability:** Producing N₂ on-site eliminates delivery transportation emissions. The PPNG HE's energy efficiency also contributes to a greener production.
- **Long lifetime:** Thanks to its robust build and a host of protective features, the PPNG HE has a long lifetime. Its CMS will last at least 15 years at full load.
- **Outdoor installation:** The PPNG HE doesn't take up indoor floor space that might not be available. Its robust design allows for outdoor installation in temperatures down to -10°C/14°F.



PMNG for craft breweries

The PMNG is the quiet, compact and convenient membrane generator that offers the nitrogen quality, purity and reliability craft breweries need :

- **Quality and purity:** The PMNG can generate food-grade nitrogen with a purity up to 99.5%.
- **Cost-efficient and sustainable:** The PMNG is 35% more efficient than other membrane generators. That means lower energy use, reduced operational costs, and a smaller environmental impact.
- **Superior reliability:** The PMNG uses membrane technology, a very simple, reliable and continuous nitrogen production method.
- **Quiet and compact:** The PMNG is as silent as it is compact, making it perfect for installation and operation at the point of use.
- **A complete solution:** The PMNG requires no additional filters, vessels or other parts. It is ready to go the minute it is connected to a compressor.
- **Ease of use:** Operation, including purity selection, is very simple.



More than just a superior product

Pneumatech offers you more than “just” the best nitrogen generator on the market. We can also provide food-grade compressed air and process filters.



Expert advice and support

Contact us with the details about your application and its requirements, such as your nitrogen usage or the size of generator you need. Our experts will put together the best on-site solution for you. If you don't have that information or need help, they are ready to help you through the specification process.



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