



Degassing system

BMM Colombini



Degassing System BMM Colombini

Since 2017, we distribute the innovative Degassing system®, produced by BMM Technology, the first to **use high vacuum technology to accelerate coffee degassing** and the only one, even today, capable of significantly reducing energy consumption and nitrogen requirements throughout the process, from grinding to storage to packaging, always in zero-oxygen conditions.

Coffee degassing

As is well known, during the roasting phase of coffee, many gaseous components are formed together with the aromas and, among them, in large quantities, carbon dioxide that is initially enclosed in the coffee cells slowly gets released outside. This process must be somehow governed and especially accelerated, to prevent residual gases, particularly CO₂, from escaping once the coffee has been packaged, risking the top of single-serving capsules to peel off or vacuum bags bulging.

“Natural” degassing is unsuitable for the coffee industry:

- it takes long time;
- it is influenced by climatic and environmental variables;
- it increases the risk of product contact with oxygen, resulting in oxidation and loss of quality.

Nowadays, it is therefore necessary to force and carefully control the process at every stage: from beans delivery to grinding, to feeding the degassing silos, to storage and conservation, to transport to the packaging machines while improving it where possible.





Made in Italy innovation and research

In degassing processes, it is established practice to use nitrogen, an inert gas that does not alter the characteristics of the coffee.

However, it has been proven that the simple introduction of nitrogen into the silos does not affect degassing times, but only its conservation, avoiding oxidation.

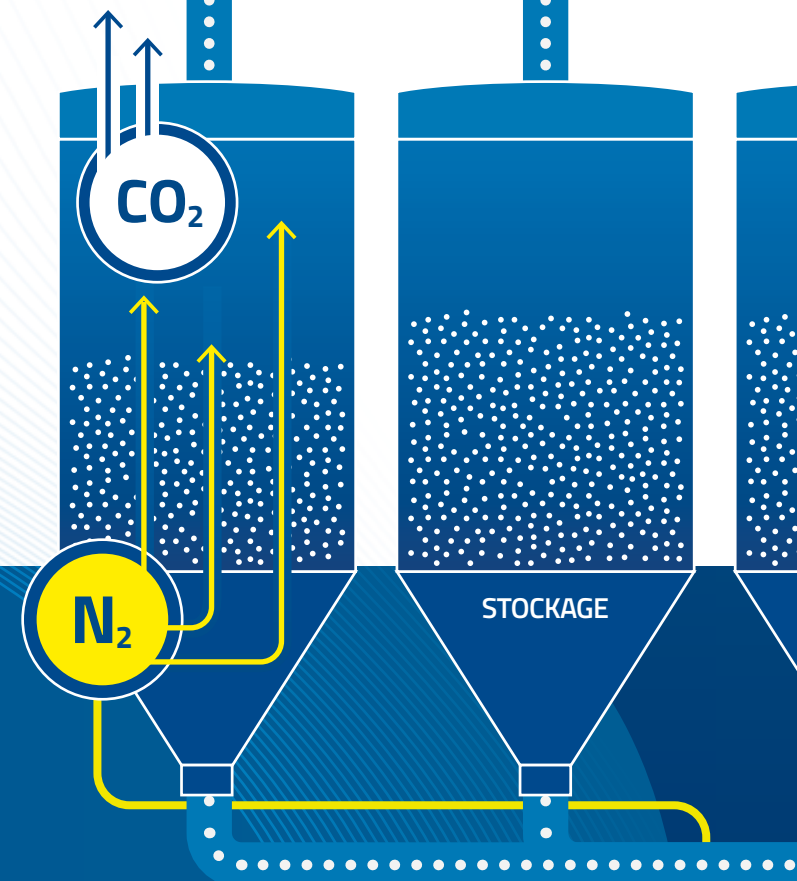
BMM Colombini system is designed to **accelerate degassing, to reduce energy consumption and nitrogen requirements and to avoid oxidation throughout the process**, from grinding to packaging.

The main innovation introduced by the Degassing system® was to **use the high vacuum, to force the extraction of CO₂** and to transport the coffee throughout the production line.

High vacuum

High efficiency, highest quality

The Degassing system® was **the first in the world to use high vacuum technology**, with very high negative pressures down to -800 mbar alternating with over pressure cycles with nitrogen injection (up to +300 mbar).



Faster degassing

Our system accelerates the degassing process, opening the fragile coffee cells sooner, which in this way release CO₂ more quickly, **saving up to 40% time.**

Less nitrogen for degassing

BMM Colombini system guarantees **extremely low nitrogen consumption**. For degassing only 5 m³/h of nitrogen are required for a fully loaded 700 kg silo, for transport and storage the quantity of nitrogen required is negligible.

5 m³/h
700 kg silos

For consistently excellent coffee

High vacuum conditions throughout the plant **ensure the highest quality of freshly ground coffee:**

- ✓ **no possibility of oxygen contamination**, being a completely closed system;
- ✓ **constant particle size distribution** along the entire line, thanks to semi-dense phase handling;
- ✓ **total absence of residue** at the end of the cycle, which allows the processing of multiple mixtures without contamination of different products.



More info

Exceptional energy and cost savings

Our coffee degassing system guarantee financial savings of tens of thousands of euros per year.



Minimal energy consumption

The absence of moving mechanical parts during transport minimizes energy consumption for coffee handling.



Fewer silos used and less space needed

Degassing is faster and consequently, fewer silos are needed for the same production capacity, reducing investment and space occupied.



Zero maintenance costs

Transporting coffee by high vacuum, minimizes the cost of maintenance and repair of any breakdowns.



Faster degassing

The use of a high vacuum, alternating with over pressure cycles, **allows a 30-40% reduction in degassing time.**



Less nitrogen for degassing

There is no lower nitrogen consumption in the market for the same performance. **For example, our system guarantees nitrogen consumption of no more than 5 m³/h in the case of 700 kg silos (fully loaded).**

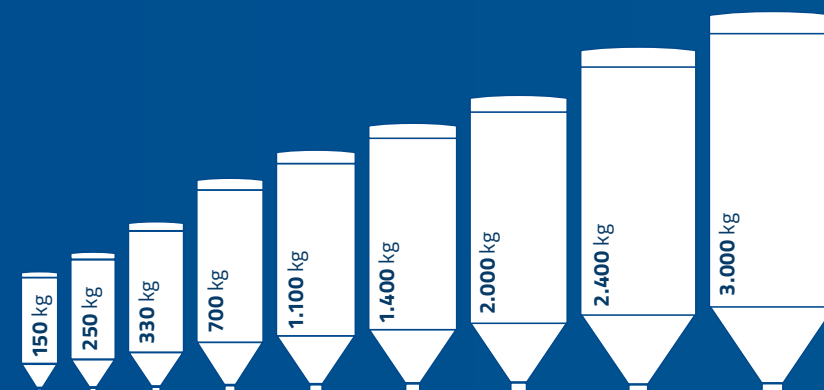


Zero nitrogen for storage

Thanks to the high vacuum inside the silo, **there is no need for nitrogen during the product storage phase**, with further obvious savings.

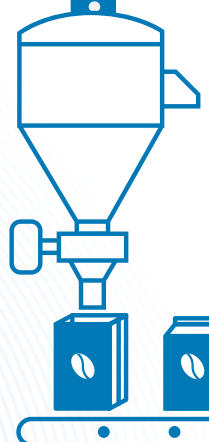
Flexible, modular, tailor-made

Our Degassing system is available in different sizes and adaptable to every production requirement, at any time.



Unparalleled degassing

+ **60** Installed plants since 2017 + **20** countries in the world



DEGASSING TIME

up to
40%
less*



NITROGEN CONSUMPTION

up to
90%
less*



OPERATING COSTS

as much as
10
times less*

* Compared with other systems



PROUDLY MADE IN ITALY



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