



GEA WHITEBLOC FILLING SYSTEM AERO

Filling bloc technology for milk-based drinks and cold-chain distributed beverages.

THE RIGHT SOLUTION FOR ESL APPLICATIONS.

A key trend in the market for dairy products led GEA to develop a new range of filling solutions for cold-chain distributed fresh and ESL premium products.

During the recent years, a key trend in the market for dairy products has resulted in the demand and consequent development of a wide range of high-quality dairy beverages with a prolonged shelf life compared to fresh products, with an increasing request in both developed and emerging markets.

They're typically distributed in a cold chain environment and feature a shelf-life of several weeks (30–90 days, depending on the process used and the product's acidity).

These liquid dairy products include pasteurized milk, flavored dairy beverages, drinkable yoghurts, probiotics and milk-based beverages enriched with added ingredients to attain a specific health function.

Sensitive, milk-based ESL beverages need special requirements to preserve their shelf-life and organoleptic properties. As such, container decontamination is an essential part of the process to ensure an effective and reliable extended shelf-life in cold chain distribution.

In order to support this increasing demand, GEA has developed a specific range of filling solutions to properly handle fresh to premium products with prolonged shelf life distributed in cold chain.



GEA WHITEBLOC FILLING SYSTEM AERO

Capitalizing on GEA proven experience and leadership as a supplier of bottling lines for sensitive beverages, the GEA Whitebloc Aero is a robust, safe and cost-effective filling technology for extended shelf-life (ESL) and pasteurized beverages.

The intuitive and easy-to-use Whitebloc Aero employs hydrogen peroxide (H₂O₂) decontamination technology to address the needs of this demanding sector. Furthermore, the hassle-free Whitebloc Aero has been designed to combine a reliable decontamination process with enhanced operational flexibility.

Boasting a small footprint, this efficient, reliable and sustainable filling system exploits and optimizes existing proven technologies for sensitive beverages to provide low TCO solution for the ESL milk sector.

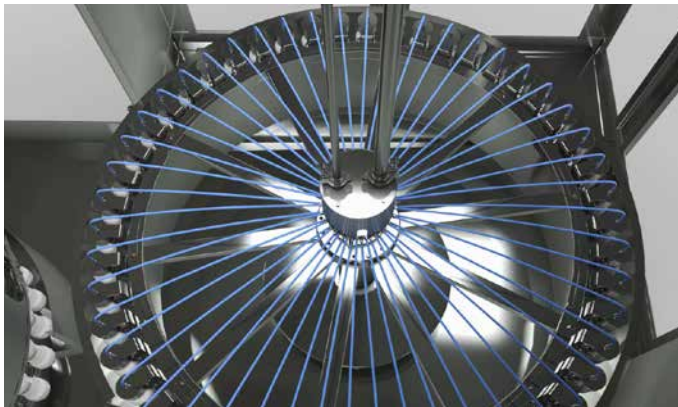
As a trusted provider of both processing and filling technologies for sensitive beverages, the GEA further enhances its position as a single-source supplier — from raw material handling to full bottle palletizing — for your entire process.



The GEA Whitebloc Aero combines a reliable decontamination process with enhanced operational flexibility.

Sustainable flexibility.

The Whitebloc Aero can achieve a wide range of decontamination targets on the same system, depending on the required level of product sensitivity and shelf-life for both high and low-acid products.



Decontamination treatment.

Decontamination module as option according to the required product shelf life.



Filling flexibility.

Still, clear and beverages containing particles in various container materials and shapes can be filled.



Changeover.

Bottle changeover requires fast and simple operations.

A FLEXIBLE SOLUTION.

Beverage producers in the ESL product market, characterized by small batches productions, increasingly need equipment cleaning and bottle format changeover systems that are both fast and cost-effective.

The GEA Whitebloc Aero has been designed to meet these demands and offer a flexible approach to a variety of applications. It can achieve a wide range of decontamination targets depending on the required level of product sensitivity and shelf-life for both high and low-acid products. Equipment cleaning is fast, cost-effective and flexible thanks to the possibility to choose between the integration of customers' existing fluid cleaning system or a dedicated cleaning process skid unit embedded with the GEA Whitebloc Aero.

Furthermore, the Whitebloc Aero can accommodate a wide range of packaging solutions, including PET or HDPE containers, plastic caps, aluminum foil and/or neck or base handling. It can also be supplied in a standalone configuration or, for PET bottles, combined with a stretch blow molding machine.



Caps decontamination system.

Both containers and closures are treated with the same H₂O₂ solution based.



Safe and hygienic sealing system for HDPE containers.

GEA patented induction sealing turret design for a fully hygienic cleanable and sterilizable solution.



The bottle decontamination treatment is performed in a hygienic cabin where a clean and protected environment is maintained thanks to a top-down laminar flow of sterile air. On the same carousel, both H2O2-based solution injection and subsequent activation with warm air are carried out.

Plus, thanks to the product recovery system, product waste is reduced to zero during the start-up cycle, at end of production and during changeovers.

In addition, the filling valves can be equipped with a load cell (weight filling) or flow meter (volumetric filling) to meet the various requirements of the liquid dairy product market.

Compact design

The decontamination, filling and capping processes are performed in a hygienic cabin that features a top-down laminar flow of sterile air. Maintaining a slight overpressure (compared with ambient) ensures a clean and protected environment. In addition, the dry H2O2 decontamination solution injection and subsequent activation with warm air is performed on the same carousel with a single starwheel. Both containers and closures are treated with the same chemical.

Low consumption

The GEA Whitebloc Aero can achieve a wide range of decontamination targets depending on the required level of product sensitivity and shelf-life. It's also a completely "dry" platform, which minimizes utility consumption and means that no water is used during production.

Modularity approach.

The versatility of the modular platform facilitates the implementation of dedicated configurations for the hygienic filling of beverages with a short shelf-life.

The GEA Aerobloc Filling System Fresh

As part of the Aero platform, GEA has also developed a dedicated filling system designed specifically for fresh beverages: the Aerobloc Fresh. This is a hygienic filling platform for milk and liquid dairy products with a short shelf-life, without requiring any container decontamination.

Using a modular approach to ensure versatility, the Aerobloc Fresh can be supplied with a variety of accessories — such as a stretch blow molding machine, an air rinser and/or a neck trimmer — depending on the specific requirements of the product and container material.



GEA Service For your continued success

Our customers can benefit from a worldwide GEA Service organization that offers continuous monitoring of all GEA filling lines with:

- Innovative process auditing for ongoing process of evaluation and improvement
- Upgrades and modernizations for keeping optimum efficiency
- Constant and proactive professional remote assistance with GEA Remote Support Filling for maximizing production capability
- Modular Service Level Agreement (SLA)

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