



# 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 (H<sub>2</sub>O<sub>2</sub>) 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.

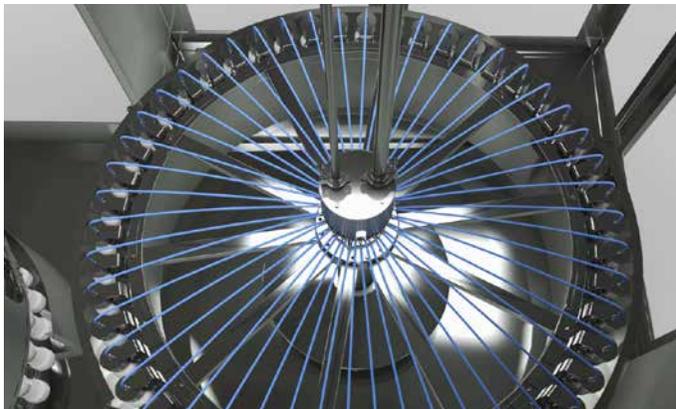
As a trusted provider of both processing and filling technologies for sensitive beverages, the GEA further enhances its position as a single-source supplier — from raw material handling to full bottle palletizing — for your entire process.



# 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 H<sub>2</sub>O<sub>2</sub> 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 H<sub>2</sub>O<sub>2</sub>-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 H<sub>2</sub>O<sub>2</sub> 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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