GEA ASEPTIC DUAL FILL SYSTEM

Aseptic filling technology for beverages containing large pieces of fruits, cereals or other ingredients – including aloe vera, nata de coco, seeds and nuts.

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TAKING ON THE CHUNKY CHALLENGE

Processing and filling sensitive beverages containing chunky solids requires unique solutions. Featuring two independent streams tailored precisely to the individual product requirements, the GEA Aseptic Dual Fill System assures great flexibility in terms of sizes, viscosity and specific gravity, to create unique premium products.

GEA Filling & Packaging has enhanced the already successful Aseptic Dual Filling System introduced more than 10 years ago for the aseptic bottling of beverages that contain pulps, fibers, and pieces of fruit or cereals with dimensions up to 10 x 10 x 10 mm, by releasing the GEA Aseptic Smart Piston Doser.

This system allowed beverage producers to launch on the market new premium and trendy products like the so called ‘food in a bottle’. In fact GEA, a pioneer in applying dual fill as part of an aseptic cold fill process, is convinced that aseptic filling adds the quality to the final product by enabling more of the natural freshness of the ingredients to be preserved, because it does not require the application of heat at the filling stage.

The GEA Aseptic Smart Piston Doser achieves the aseptic dosing of the high value solid pieces ahead of the subsequent liquid filling process, with a higher level of accuracy and maximized product integrity rate.

The GEA Aseptic Smart Piston Doser now features a magnetic actuated piston system which gently delivers the solid particles according to the prescribed volume into the container. The bottle is then transferred onto an aseptic volumetric, electronic filler, the Fillstar FX, to add the liquid portion and complete the aseptic filling process before closure application.

GEA can offer a complete solution which ranges from product preparation, including optimized thermal heating modules for the sterilization of the premium solid particles and the liquid beverage, to final packaging in bottles.

GEA ASEPTIC SMART PISTON DOSER

A newly designed magnetic actuator brings flexibility and dosing accuracy to a higher level.

GEA Aseptic Smart Piston Doser benefits from the capability of creating unique premium products with a high flexible approach. Thanks to the magnetic actuator design solution it is possible to dose either small or large volumes of solid particles which allows beverage producers to maximize the Total Cost of Ownership.

The TCO can be additionally improved when combining GEA filling solution with GEA thermal processing modules. The long term experience in aseptic dual filling projects achieved to identify an integrated solution which minimizes components, utility consumptions, footprint and provides optimized time duration for cleaning and sterilization cycles of the overall equipment. In order to maximize the organoleptic and nutritional content of both solid particles as well as the liquid beverage, the Aseptic Dual Filling features two dedicated streams for the thermal processing profile and filling applied to each of the components.

The aseptic technology developed by GEA provides benefits in creating premium products compared to other technologies like hot filling where the damage rate on pieces, maintained at high temperatures for long periods of time before cooling, can become critical, especially for fragile pieces such as aloe vera or orange and mandarin sacs. Adopting the Aseptic Dual Filling technology solution from GEA, allows the consumer to experience innovative and high value added beverage from both organoleptic and nutritional content.

The GEA Aseptic Smart Piston Doser is the ideal solution for homogeneous and precise dosing of fruit pulps, fibers, chunks or cereal throughout the continuous production of sensitive beverages, both high acid and low acid.

Benefits

- Flexibility in particle size dosing capability up to 10x10x10 mm
- High level of dosing accuracy even in case of small volumes of particles being filled
- Gentle filling with minimized destruction rate in case of fragile particles dosing

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