



Aseptic enzyme dosing unit of small quantities – for lactosefree milk production

Making lactose-free milk is simple - in principle: you just have to add some of the enzyme lactase and the problem is eliminated. But the problem lies in the details, especially in the effort to require as little enzyme as possible, due to price, and at the same time and without great trouble, to guarantee perfect sterility in the enzyme addition. Manufacturer GEA has achieved a quantum leap with its variable aseptic dosing station VARI-DOS-ASEPT.

By GEA

Lactose-free milk is becoming more and more important in the dairy business, and just in time for this trend GEA has developed an aseptic dosing station for the production of lactose-free milk, which sets GEA apart from previous technologies. When producing Lactose-free milk it is necessary to break down the milk sugar in the milk with an enzyme. Lactose-free milk can basically be produced in two ways:

You can either add this enzyme *before* the thermal process, i.e. mix the milk in the tank, add the lactase enzyme and

then thermally treat the milk to ESL milk and / or UHT milk, and afterwards have the lactose free milk. Here however, you need ten times as much of the enzyme as when it was added only after the thermal processes of the already-treated milk. In the past, the enzyme was usually added before the thermal process.

Or you can add the enzymes *after* the heat treatment, for this GEA has built a small aseptic dosing unit named VARI dos Asept (VDA), meeting customers' requirements:

- For the dosing of small quantities 0,3 g/kg aseptic liquids directly into the aseptic main product
- Extended automatic sterilisation of all installed interface components before the product rinse into the dosing port
- Total aseptic safely by constant supplied pressurized air in the production mode
- Full automatic controlled dosing before the aseptic tank or direct before the filling machine
- Fully integrated CIP requirements:

GEA – engineering for a better world

GEA is one of the largest suppliers of process technology for the food industry and a wide range of other industries. The international technology group focuses on process technology and components for sophisticated production processes in various end-user markets.

In 2017, GEA generated consolidated revenues of about EUR 4.6 billion. The food and beverages sector, which is a long-term growth industry, accounted for around 70 percent. The company employs almost 18,000 people worldwide.

GEA is a market and technology leader in its business areas.

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