



HYGIENIC PASTEURIZATION AND STERILIZATION OF LIQUID FOOD

EHEDG launches new guidelines for the benefit of food safety

FRANKFURT, GERMANY, October 19, 2018 – The European Hygienic Engineering and Design Group (EHEDG) launched a comprehensive set of hygienic design principles on pasteurization and sterilization of liquid food. Bengt Eliasson, Chairman of the EHEDG Working Group Heat Treatment: “These completely renewed guidelines contain many valuable insights in how to optimize the food safety, productivity and energy efficiency of continuous pasteurization and ultra-high temperature sterilization processes.”

The new guidelines on pasteurization and sterilization of liquid food contain hands-on information aimed at food producers, machine equipment developers and plant designers who need to comply with the latest food hygiene regulations. Eliasson: “The old versions of these guidelines focused primarily on milk production, thus limiting the possible applications of these guidelines. The renewed guidelines also cover the production of other liquid foods and high acid products like fruit juices. They provide practical technical frameworks that include a wide array of topics ranging from general considerations regarding the applied pasteurization and sterilization techniques to hygienic process design and technical matters concerning effective flow diversion, recirculation and cleaning and control processes.”

Old meets new

Pasteurization and sterilization are well established, most widespread and important methods to preserve liquid food. This is why the initial guidelines for continuous pasteurization and sterilization were the very first guidelines that EHEDG published to optimize food safety in the food industry. That was back in 1992. Since then, new technologies and new legal requirements and regulations have emerged. EHEDG translated all those new developments into practical guidelines that the food industry and its suppliers can work with to comply with all current requirements.

Eliasson: “These guidelines will help to make sure that correct temperatures and processing conditions are maintained, that any unacceptable deviation in key process variables results in an automatic flow diversion or shutdown and that the production process is stopped before fouling becomes significant or before thermophilic bacteria growth becomes too intensive.”

Less waste, higher productivity rates

For those who want to go one step further, the renewed guidelines also contain useful information on techniques to optimize energy efficiency and minimize maintenance intervals.

Eliasson: “Even when investment budgets are limited, there are interesting options. In sterilization processes, for example, it’s also possible to preheat a product after the holding section with a sterilized product in a regenerative heat exchanger, making for less complex plant designs and realizing the same amount of energy savings.”

About the authors

The renewed EHEDG guidelines on pasteurization and sterilization of liquid food is a product of the EHEDG Working Group Heat Treatment that consists of top level technical experts from a wide variety of disciplines. It is a collective achievement of a broad team of hygienic engineering and design guideline writers with origins in different parts of the industry, ranging from equipment design to process management, maintenance and quality control. Combined, these experts represent more than 200 years of hands-on experience.

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