

New Food Equipment - GEA offers mobile test centre for cultivation and fermentation

At Anuga FoodTec 2022, GEA presented a mobile test centre (MTC) for new food applications for the first time - a fully equipped, individually configurable process line on a pilot scale for the cultivation of different cell types as well as for fermentation. Customers can rent these lines, test them at one of the system manufacturer's locations or buy them.



The Batch Formula Pro high-shear mixer blends end products with a solids content of up to 80 percent or a viscosity of up to 100,000 centipoise, allowing complex products to be mixed. (Photo: © GEA)

Catalyst for cellular agriculture

Sustainably transforming the food industry and finding alternative food sources has never been more urgent, concludes a report by the US Food and Agriculture Organization (FAO). Leading the way for tomorrow's safe, accessible and affordable nutrition are advances in the new-food market, which GEA aims to shape as a technology partner. At Anuga FoodTec in Cologne, GEA showed its new pilot line for cultivation and fermentation - a catalyst for cellular agriculture on its way from the laboratory to commercial production.

"Laboratory equipment alone does allow experimental proof that formulation or cell growth could work for a particular end product. But we can only evaluate these results and develop a viable concept for industrial scaling in pilot lines. At the MTC, we turn ideas into reproducible processes," Kroner explains. With the test centre, GEA now wants to fill the gap between laboratory work and the demo systems. Whether cell viability, mass balance or yield - customers can determine these parameters in the test centre, create processes efficiently and work out a resilient business model for later commercial production.



As part of the mobile test centre, the GEA UHT pilot plant is a flexible, highly automated system for the indirect thermal treatment of liquid products, such as fermentation solutions or dairy products. (Photo: © GEA)

For all those entering the new food terrain

Until now, making the leap from testing new types of food in the laboratory to validating processes on an industrial scale has required significant investment in demonstration facilities, which, however, do not guarantee success. With the mobile test centre, GEA is aiming for a new kind of proof of concept for cellular agriculture. The highlight: To support scaling up to commercial cell-based manufacturing, customers don't need to invest in a full pilot system. Instead, they can use the MTC: Study the growth and behaviour of cell cultures and microorganisms and fermentation processes, modify recipes, change growth media and ingredients, and influence process parameters that increase yield and reproducibility.

"Not only do we have to find new ways of feeding ourselves, we also have to make these foods affordable and available," says Kroner describing the challenge. "As technologists, this is where we see GEA's strength: We provide a high level of investment security for our customers when they enter new-food territory."

Complete process line in the mobile test centre

The MTC consists of eight technologies that comply with food regulations: These include not only GEA's multifunctional fermenters and bioreactors, but also lines for mixing, heat treatment, homogenisation, separation and filtration. The system provides the freedom to change the order of the different stages and add or repeat process steps to test cultivation and fermentation strategies as well as product recovery. Thanks to the flexible process architecture, the line can be individually configured, installed and commissioned on site.

Additional information and contact

GEA Group Aktiengesellschaft

Fanny Förster

Tel.: +49-(0)211-9136-1504

pr@gea.com

www.gea.com