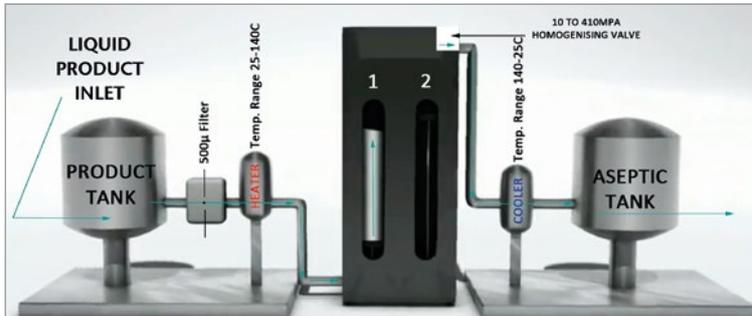


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Beyond high pressure processing



The most recent UHPH system manufactured by Ypsicon will be installed at the UITA food technology centre in Uruguay

A new Ultra High Pressure Homogenisation (UHPH) technology for the treatment of beverages and liquid food to rival that of High Hydrostatic Pressure Processing has been commercialised by **Ypsicon**, a technology-based company based at the Autonomous University of Barcelona (CERPTA).

Ypsicon in Barcelona, Spain, works with the CERPTA research centre for food technology, an active group globally in high pressure research and development, and specialises in the design and manufacture of high pressure equipment for the food industry.

"UHPH uses a combination of high pressure and temperature (employed for a very short period of time to avoid heat damage) to sterilise and homogenise liquids, allowing their conservation at room temperature for over six months and preserving their aroma and taste in perfect condition," said Leo Moreta of Ypsicon. He explained that the company's systems integrate Stansted Fluid Power (SFP) homogenizers as part of the UHPH system. "We have run tests on fruit juices, milk, vegetable milks and other products, and the results are excellent. The products treated with UHPH have similar characteristics to those of a fresh product, in terms of colour, aroma, taste and nutritional properties, but have the advantage of being sterile and stable. The products can be stored for a long time at room temperature without losing their properties."

Mr Moreta summarised the offerings of UHPH:

- Sterilisation of fruit juices and beverages using continuous high pressure, with almost no heat damage is possible. Tests run with Ypsicon prototypes show that fruit juices treated with UHPH contain 100 times less HMF (heat damage indicator) than fruit juices treated with conventional pasteurization.

- UHPH guarantees a sterile product (with all the associated benefits in terms of logistics), but with the nutritional and organoleptic properties of a fresh product. HPP does not offer the same level of reduction of microbial counts, according to Ypsicon.

- In tests, UHPH technology has been shown to destroy spores.

- UHPH is a continuous process, perfectly adapted to industrial production needs.

"Ypsicon currently manufactures UHPH machines for handling 15 litres per hour, 100 litres per hour and has also developed a UHPH machine that can produce 1,000 litres per hour," said Mr Moreta. "This is a modular system so processing capacities of several thousand litres per hour can be reached with this new system, which offers a solution for large-scale industrial production. ■"

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