



FPS Food Process Solutions is a global leader in turn-key food processing solutions. We provide innovative systems to ensure the highest efficiencies and to meet the most stringent sanitary demands. These factors transform into superior food quality, lowered total cost of ownership, and maximized profits.

In late 2023, **OptiCept** and **FPS** formed a strategic alliance to develop, research, produce, and commercialize PEF (Pulsed Electric Field) technology, starting with the solid food processing segment. This partnership brings greater benefit to the sector looking for innovations that offer efficiency including energy-savings while still retaining high quality products and competitiveness.

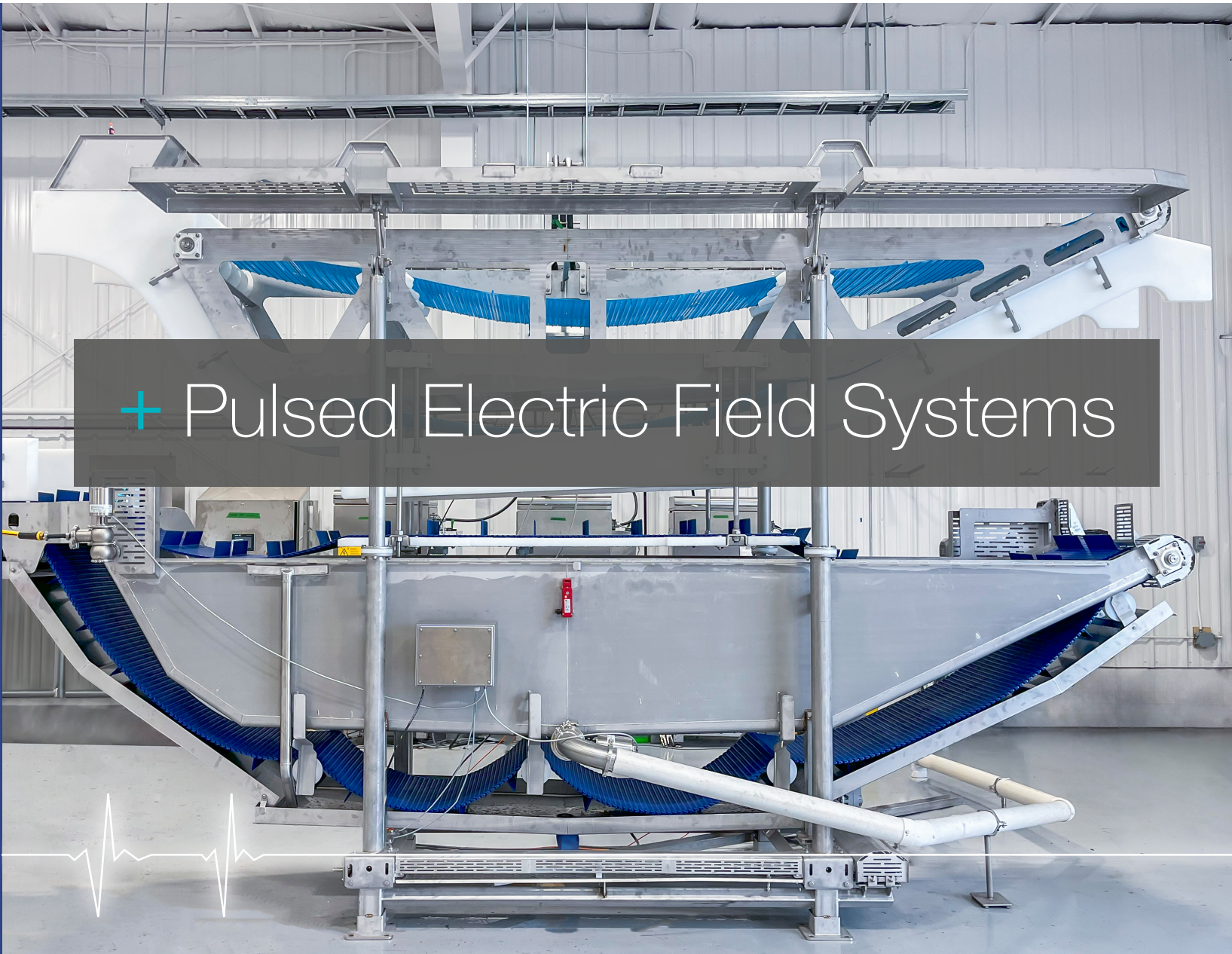


OptiCept Technologies pioneers advancements in technologies that maximize output, profitability and sustainability. OptiCept helps its customers by providing advanced technologies designed to enhance efficiency, quality, shelf life, and reduce waste across food and plant industries.

CORPORATE HEADQUARTERS

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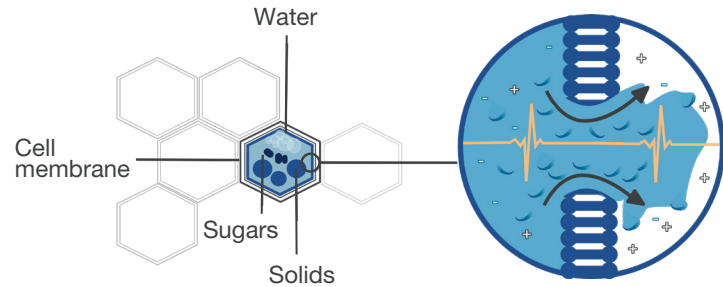
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+ Pulsed Electric Field Systems

HOW PEF WORKS

Pulsed Electric Field (PEF) technology uses high-voltage, low-energy electric pulses to disrupt cell membranes in foods, opening pores in treated cells. PEF can soften foods, improve extraction of intracellular compounds, improve the absorption of liquids, or even improve thermal transfer. PEF's low energy, non-thermal, and non-chemical nature means its deployment can lead to significant improvements in product quality, process efficiency, energy & water consumption, and ultimately, processors' bottom lines.



APPLICATIONS

By adjusting treatment parameters, PEF technology's applications can range widely. Some applications include:



Drying

- Improve drying rates of fruits, vegetables, and herbs, decreasing drying times by 10-50%
- Improve product quality (color, nutrient retention, etc.)



Extraction

- Improve juice extraction yield by 5-40% for juices and 5-10% for olive oil
- Improve juice/oil quality (color, polyphenols, etc.)



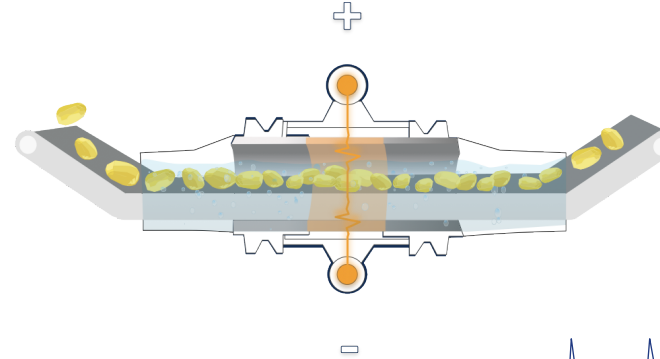
Absorption

- Improve meat marination/brining
- Improve pickling of vegetables/fruits

PEF EQUIPMENT

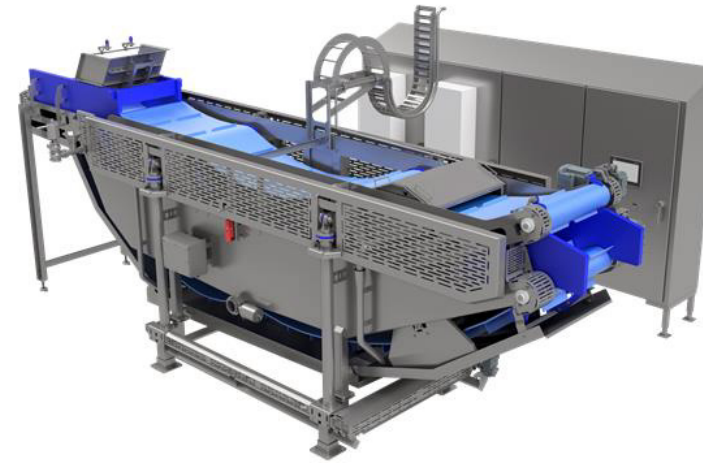
PEF systems consist of a treatment chamber and one or more generators. High-voltage pulses created by the generator(s) are delivered to the treatment chamber where product is passed through sets of electrodes and treated. In solid systems, conveyor belts move products through the chamber, whereas liquid systems pump products through a pipe.

FPS and OptiCept offer state of the art solid and liquid PEF systems that can handle any PEF application.



FPS OPTICEPT® S-SERIES (SOLIDS)

Through our collaboration with technology partner OptiCept Technologies, we've combined cutting edge PEF technology with decades of experience in hygienic food processing equipment design. The next generation FPS OPTICEPT® S-Series system is the most efficient and hygienic PEF system for solid foods in the market, all while minimizing total cost of ownership.



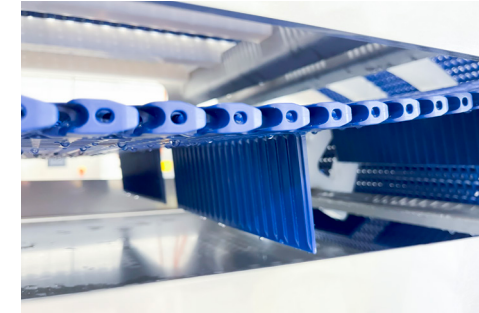
The most hygienic PEF system

- Jack system fully separates and lifts conveyor assembly out of tank for unrivaled accessibility and ease of cleaning
- Externally returning belts with optional belt washes



The most efficient PEF system

- Powered by OptiCept's pulse technology, delivers sharp pulses specifically designed for food material applications
- Patented CEPT® treatment chamber maximizes treatment efficiency, making the S7 up to 50% more efficient than other PEF systems



The lowest cost of ownership

- Built in generator redundancy minimizes downtime risk
- Externally placed motors and sensors improve ease of maintenance
- Electrodes designed to be easily replaced
- Externally returning and washable belts reduce belt degradation

OPTICEPT® L-SERIES (LIQUIDS)

OptiCept Technologies is the market leader in liquid PEF processing, with a strong foothold in the olive oil industry. The OPTICEPT® L-Series PEF system provides a versatile platform for treating liquids and other pumpable products, from olive oil, to juice, to small foods suspended in liquid.

Modular, Hygienic, and Efficient PEF System

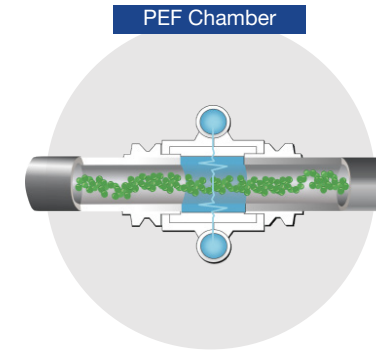
Fully modular, stainless steel frame, all product-wetted components are designed to meet strict food-grade standards

Advanced PEF Generator and Booster Module

The CEPT v7 PEF generator, a high-powered, PLC-supervised unit that ensures precise treatment conditions

Built-In Safety and Monitoring Mechanisms

Safeguards ensure stable, safe, and high-performance operation, making the OPTICEPT® L7 a reliable and advanced solution for the liquid processing industry



THE FPS DIFFERENCE

Our commitment to collaboration and partnership extends to our PEF systems. Backed by deep product and process expertise, we are committed to delivering the most hygienic, lowest cost of ownership processing solutions to customers.

FPS SERVICE

With global service teams on 6 continents, remote monitoring capabilities, and 24/7 service hotlines, we are able to provide the same world-class service for our PEF systems as with our other equipment.