



HPP for safe and nutritious meals



Tasty – safe – nutritious

High-pressure processing (HPP) efficiently inactivates pathogen and spoilage microorganisms in ready meals in just a few minutes without using heat and additives. This results in up to six times longer shelf life. Short non-thermal treatment preserves authentic taste and appearance of homemade or exotic dishes prepared from carefully sourced raw materials rich in healthy ingredients.

The advantages at a glance:



Longer shelf life – new markets

The high-pressure treatment eliminates *Listeria*, *Salmonella*, *E.coli*, *Campylobacter* and other pathogens in ready-to-eat or ready-to-prepare meals. Improved microbiological safety and longer shelf life help to reach new markets and minimize the risk of costly recalls.



Minimizes post-contamination risk

Hydrostatic pressure acts uniformly and instantly throughout the product. It prevents product deformation and ensures sophisticated pathogen inactivation. And a big plus: the products are treated in their final packaging so there is no recontamination e.g. from preparation or packaging.



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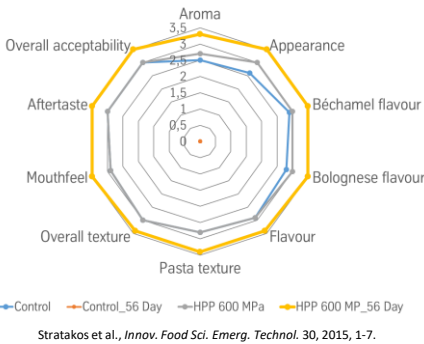
Prolonging shelf life and improving taste

High hydrostatic pressure between 400 MPa and 600 MPa reduces microbial load and extends shelf life of ready meals.

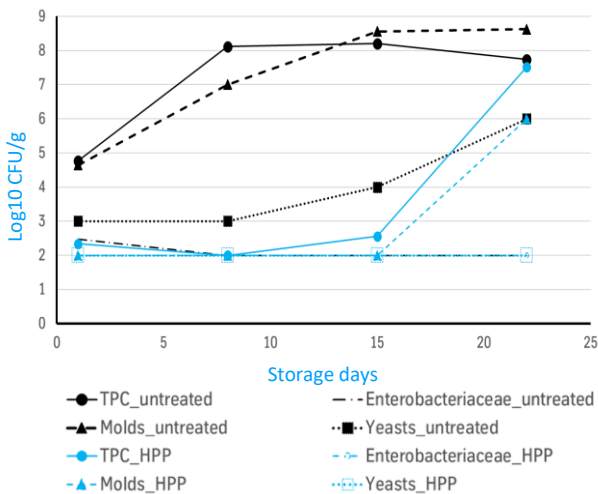
HPP is an ideal safety hurdle for the preservation of fresh and cooked meals containing vegetables, meats, fish, seafood, salads, pasta, soups, etc.

Depending on product ingredients and processing conditions, ready foods can be stored for up to a half a year.

Sensorial properties HPP vs. non-treated lasagne



The shelf life of curry noodle salad with and without HPP



Source: High Pressure Research



High added value products

Quality

Non-thermal treatment allows preservation without overcook taste. HPP favours extraction and diffusion of water-soluble ingredients, which can improve flavour.

HPP has a minor effect on vitamins, aromas, pigments or antioxidants. Contrarily, it alters hydrocolloids which helps to retain juiciness, improve consistency or shorten cooking time.

HPP works well with plastic packaging including vacuum and MAP-packed products.



Easy to consume and healthy meals

High hydrostatic pressure can alter physicochemical, thermal, pasting and morphological of food hydrocolloids.

HPP can be used to ease preparation, improve texture or functionality of starch-based food (e.g. low-glycemic meals).



Pressure-induced alterations of proteins help to improve textural properties, prepare meals with reduce sodium content and decrease drip loss in ready-to-cook meals.