



HPP for freshness and vivid colours



Gentle – fast - safe

The high-pressure processing (HPP) efficiently inactivates pathogen and spoilage microorganisms in fresh vegan products such as spreads and dips, purées or fruit compotes without using heat or additives. Short non-thermal treatment results in drastic extension of shelf life with minimal loss of vitamins, minerals, antioxidants, aromas and pigments.

The advantages at a glance:



Longer shelf-life – new markets

HPP inactivates acid tolerant bacteria, yeasts, and molds, while activity of oxidative enzymes is reduced. Longer freshness and improved microbiological safety facilitate distribution, reduce food wastage and minimize risk of costly recalls.



Minimize 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.



Contact

Boris Brockhaus

Product Manager HPP

P: +49 2331 967- 302

F: +49 2331 967- 370

boris.brockhaus@thyssenkrupp.com

Jasna Ivanovic

Food Technologist HPP

P: +49 2331 967- 386

F: +49 2331 967- 370

jasna.ivanovic@thyssenkrupp.com

Uhde High Pressure Technologies GmbH

Buschmühlenstrasse 20

58093 Hagen

www.thyssenkrupp-hpp.de

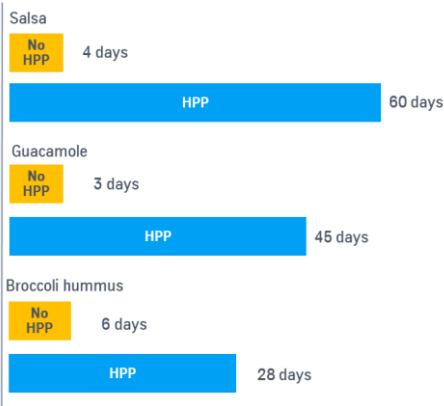
Reducing risk and prolonging shelf life

High-pressure treatment between 400 MPa and 600 MPa efficiently inactivates harmful microorganisms in foods made of fruits, vegetables, cereals and legumes.

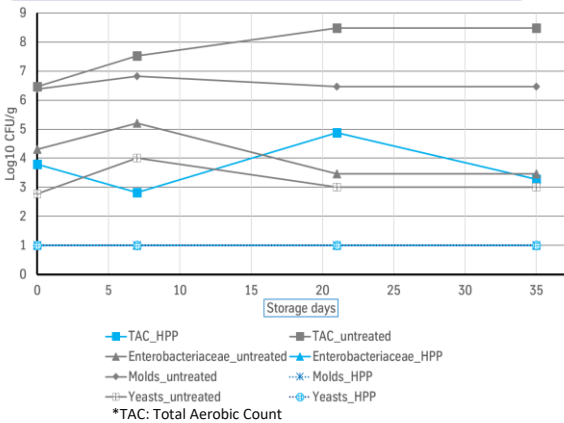
HPP efficiently inactivates molds, yeasts, lactic bacteria, and pathogens like *Listeria*, *E.coli* and *Salmonella* in plant-based foods.

HPP is used to preserve a variety of moist vegan products such as purées, dips, spreads, pastes, compotes or porridges.

Shelf life extension of homemade dips stored at 4 °C



Fruit-based cereal porridge stored at 5 °C



Source: High Pressure Research



High added value products

Quality

Short non-thermal treatment using HPP minimizes loss of vitamins, minerals, antioxidants, aromas and pigments.

High pressure reduces the activity of oxidative enzymes (PPO, PME, POD, etc.) that impair colour, flavour and consistency of plant-based foods.

HPP works well with flexible packagings such as plastic bottles, pouches, cups and bags made of PET, PE, PP or EVOH or combination thereof.



Safe, nutritious and functional plant-based products

HPP is ideal for the preservation of homemade, moist vegan food products which are not suitable for thermal preservation (guacamole, garlic paste, hummus, fruit purées).



High-pressure treatment of fruit and vegetable purees can improve the bioavailability of antioxidants and pigments through partial extraction or vitamins through hydrolytic reactions.