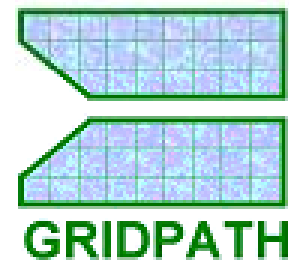


High Pressure Processing

Non-Thermal Pasteurization for
RTE Meat and Poultry



Non-Thermal Pasteurization

- Pre-packaged product is subjected to high hydrostatic pressure.
- Destruction of spoilage organisms and harmful pathogens.
- No adverse sensory changes.

Cooked Meat and Poultry

- Sliced Meat
- Full Roasts
- Sausages & Franks
- Specialty Products



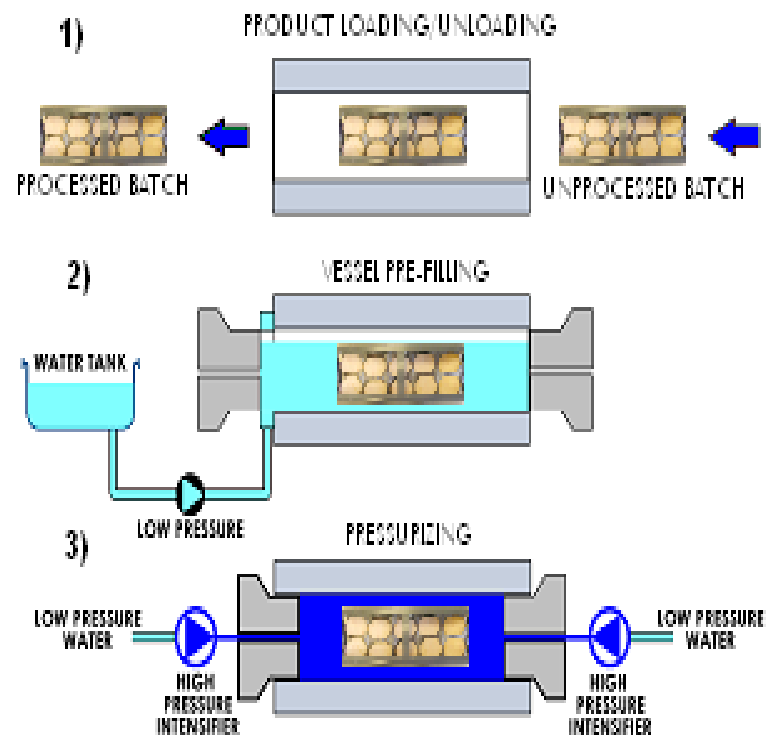
Process

- 87,000 psi, 3 minutes.
- 2-3 times extension in shelf life.
- >6 log reduction in
 - Listeria
 - Salmonella
 - E-coli



NC Hyperbaric

- Flow Through Process
 - Product Loading.
 - Low Pressure Fill.
 - High Pressure Dwell.
 - Finished Product Unload.



Gridpath Peripherals



- Scalable production Systems
 - 55 Litres
 - 135 Litres
 - 300 Litres
 - 300 Litre Tandem
 - 420 Litres
- Single Unit Throughput up to **2000 kg/hour.**

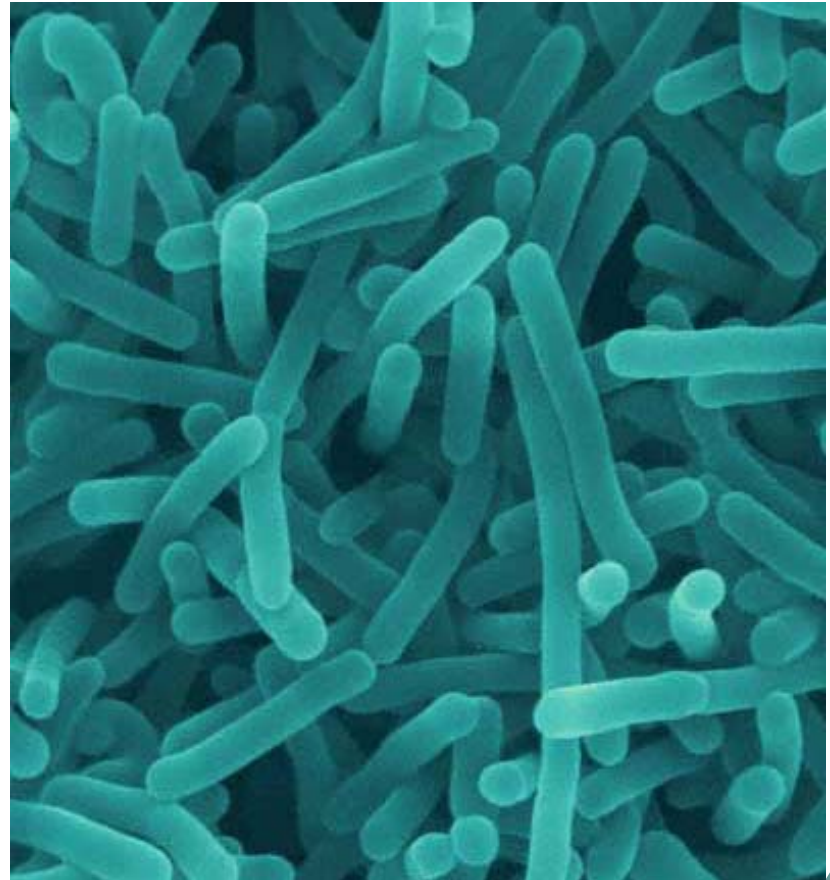
Package Compatibility

- Vacuum or gas flush.
- Semi-rigid trays.
- Efficiency varies, efficacy does not.



Health Canada and USDA

- Recognized as a valid “In-Package” intervention step.
- Substantial equivalency to current applications and Decision Documents.
- Package material certification.



Commercial Advantages

- Shelf Life
- Marketability
- Food Safety
- Production/Operations

Shelf Life

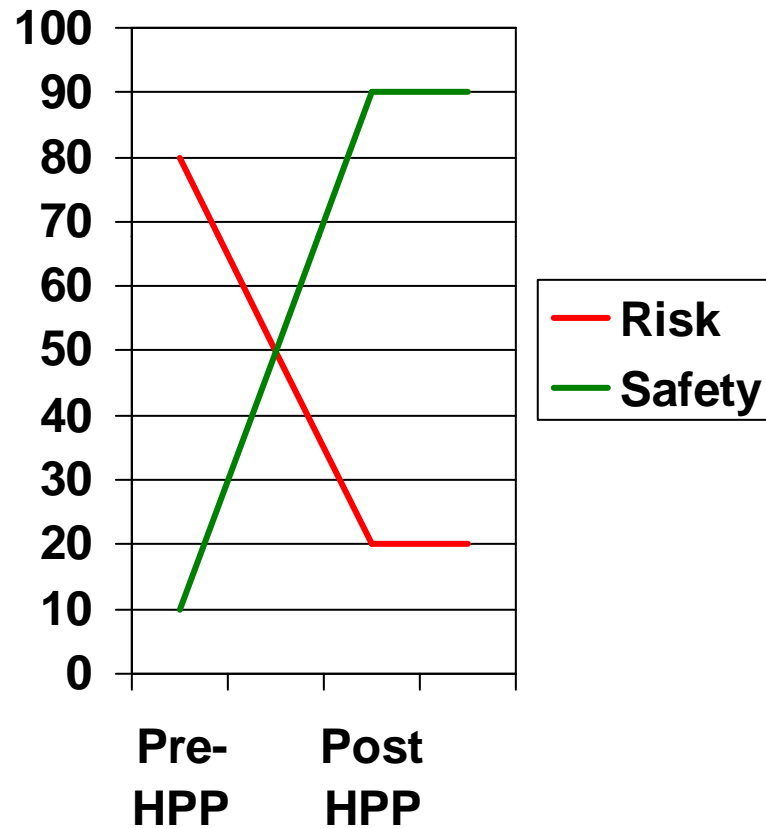
- Dramatic Increase
- Expanded Distribution
- Reduced shrinkage and returns.



Market Trends

- “Natural”.
- Max Quality – Min Hassle.
- Organic.
- Minimally Processed.
- Novel Products

Food Safety



- Reduced Risk.
- Brand Protection.

Production/Operations

- Minimize changeover.
- Flatten Seasonal volumes.
- Cook temperatures, minimal processing.

HPP Solutions

- Non-invasive intervention.
- No compromise to product integrity.
- Minimize risk.
- Improve shelf life.
- Reduce production costs.



HPP Centre of Excellence

- Stoney Creek, Ontario.
- Co-operative HPP process development.
- Free validation testing.



- Gridpath/NC
- University of Guelph
- Multivac
- Fortress
- Winpak
- Excel
- Ecolab

High Pressure Processing

Thank You!

