

H I G H - P R E S S U R E P R O C E S S I N G

F R U I T P R O D U C T S



Fresher Under Pressure[®] Provides Quality, Food Safety and Extended Shelf Life

Fresher Under Pressure Provides What Consumers Want and Producers Need

Consumers expect fruit products not only to be safe but also to have fresh, just prepared characteristics without additives or preservatives.

Fresher Under Pressure high-pressure processing (HPP) makes increased distribution of fresh fruit products possible. *Fresher Under Pressure* satisfies the quality and safety requirements of consumers and the preparation and distribution requirements of the food industry.

Fruit products such as purees, salads and preparations are subjected to very high pressures for less than a few minutes, resulting in inactivation of spoilage organisms and harmful pathogens as well as the reduction of enzymatic activity. Fruit products retain the sensory qualities, texture, color and nutritional content of the fresh fruit product which adds great consumer value.

HPP extends refrigerated shelf life, making the development and distribution of new fresh fruit products highly profitable. Consumers readily accept products pressurized with *Fresher Under Pressure*.

Fresher Under Pressure Advantages

Typically no change in appearance, flavor, texture, or nutrition compared with fresh products.

Increased food safety without the use of heat or chemicals.

Extended shelf life increases distribution opportunities, reduces returns and sensitivity to cool chain abuse, and allows more efficient production scheduling.

Fresher Under Pressure Batch Processing Benefits

Fruit products are pressurized in the final consumer package or in a bulk bag. Product handling can be fully automated, integrating with conventional processing/packaging equipment. Benefits of batch processing include:

Elimination of post-processing contamination risks.

Microorganisms in the food product and on the package are killed in the same operation.

Most plastic food packages can be used, including cups, bags or stand-up pouches.

***“Fresher
under
Pressure”***

STRAWBERRIES

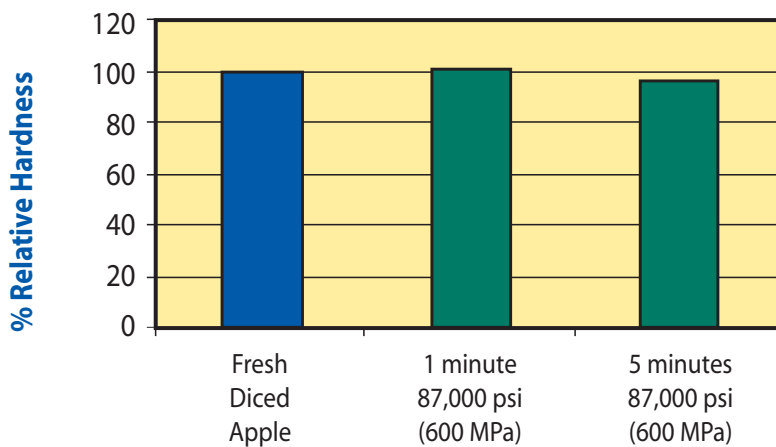
Pressure Inactivation of Molds, Yeast and Lactic Acid Bacteria in Strawberries

Stored for 30 days at 30°C

		Molds	Yeast	Lactics
Process		CFU/g		
Inoculated	non-HPP	220,000	120,000	460,000
	87,000 psi (600 MPa), 3 minutes	<1	<1	<1
Non-Inoculated	non-HPP	850	400	35
	87,000 psi (600 MPa), 3 minutes	<1	<1	<1

Data source: S.S.I.C.A., Parma, Italy

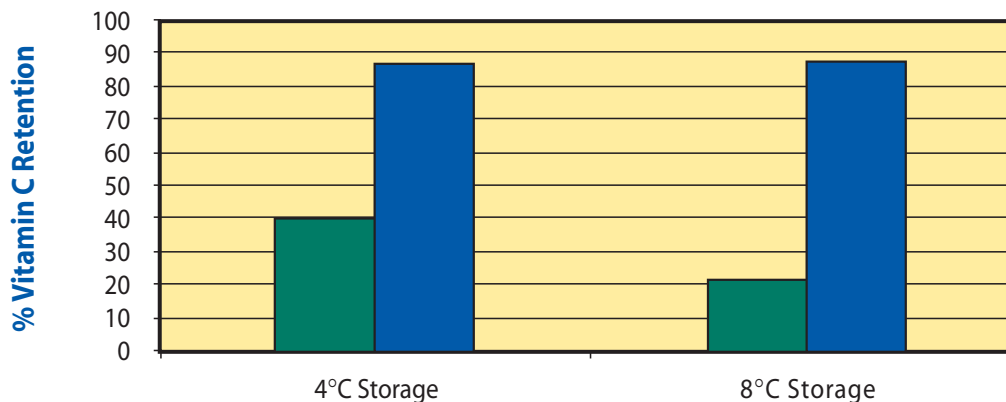
TEXTURE PROFILE Fresh Diced Apple



A texture profile test shows that diced apple will not change texture after pressurization at 87,000 psi (600 MPa).

Data source: S.S.I.C.A., Parma, Italy / Avure Technologies, Västerås, Sweden

VITAMIN C RETENTION Valencia Orange Juice After 20 Weeks Storage



Data source: University of Leuven, Belgium



Avure Technologies Incorporated
23500 64th Avenue South
Kent, Washington 98032 USA
Tel: 253-850-3500 • Fax: 253-813-3285
TOLL FREE: 800-610-1798
www.avure.com

Avure Technologies
Quintus v.2
SE 721 66 Västerås
Sweden
Tel: +46 21 327000 • Fax: +46 21 141817
www.flowpress.com

