

# QFP 100L-600 High Pressure Processing System



## Features and benefits

High pressure (600 MPa, 87,000 psi) inactivates foodborne pathogens and spoilage microorganisms without significant changes in the organoleptic properties and nutritional value of foods

Compact lightweight design allows for easy installation and relocation

Unmatched corrosion protection with the majority of stainless steel construction that meets or exceeds FDA/USDA food processing plant requirements

All Avure HPP systems are backed by our global team of specialists, ensuring secure, safe and reliable system installation and operation

## High Performance HPP

The Avure QFP 100L – 600 High Pressure Processing (HPP) system is designed specifically for the needs of small/medium and seasonal processors. With its 100 liter capacity, high throughput, low initial and operating costs, and ease of use and maintenance features, it dramatically lowers the cost and risk of High Pressure Processing. It is also a perfect system for larger HPP processors in need of third shift and redundancy options as it shares many components with Avure's larger production systems.

## Industry Leading Performance and Reliability

The 100L system is based upon field proven technology and incorporates many new features to reach new levels of reliability and performance. The horizontal orientation of the 100L allows single direction, in line, product flow compatible with most HACCP and QA programs and is designed with a floor space efficient footprint. Equipped with the industry standard 30XQ multi intensifier pumping and decompression system, the 100L system will provide fast compression and decompression and excellent throughput due to its large processing vessel diameter.

## The Leader in HPP

The 100L is Avure's fourth generation high pressure food processing platform and joins a product family that produces the vast majority of the world's high pressured processed food products. Avure HPP systems are used by large and small food processors worldwide producing more than \$2 billion per year of HPP RTE meats, processed fruits and vegetables and seafood products.

## Complete Solutions

More than an equipment supplier, Avure offers complete solutions for the food processing industry. Avure's food science group provides HPP product applicability assessments, product development, microbiology, recipe and packaging consulting services. Avure's highly trained customer support staff is globally deployed to ensure that customers maintain maximum system uptime and efficiency.



# PRODUCT SPECIFICATION

## QUINTUS® Type QFP 100L-600

### Production rate/Cycle time

The 100L can process up to 70 kg per cycle (155 lb), depending on product size and packaging. Excluding hold time, the complete cycle time is approximately 3.5 minutes for a 60 Hz system or 4.0 for a 50Hz.

### Cycle data documentation

SCADA pc-based control system records operator, time, lot, batch, pressure, temperature, faults, and other key parameters during cycles.

### Maximum operating pressure

600 MPa (87,000 psi)

### Maximum vessel temperature

50° C (122° F)

### Pressure vessel volume

100 litre (26.4 gal)

### Internal diameter

308 mm (12.1")

### Internal length

1,420 mm (55.9")

### Total vessel and frame weight on foundation

17,500 kg (38,600 lbs)

### Length of press

4.3 m (14.1')

### Length including material handling

6.4 m (21') including extension

### Width of press

2.6 m (8.5')

### Height to top of press

1.9 m (6.2')

### 30XQ intensifier pump

Stainless steel frame and protective covers for food plant environment.

### Recommended input cooling water temperature range

4°-16° C (39°-61° F)

### Recommended input process water temperature range

4°-25° C (39°-77° F)

### Cooling water supply

Average 34 l/min (9 gal/min) at 16° C (61° F) water temperature. Peak consumption 75 l/min (19.8 gal/min).

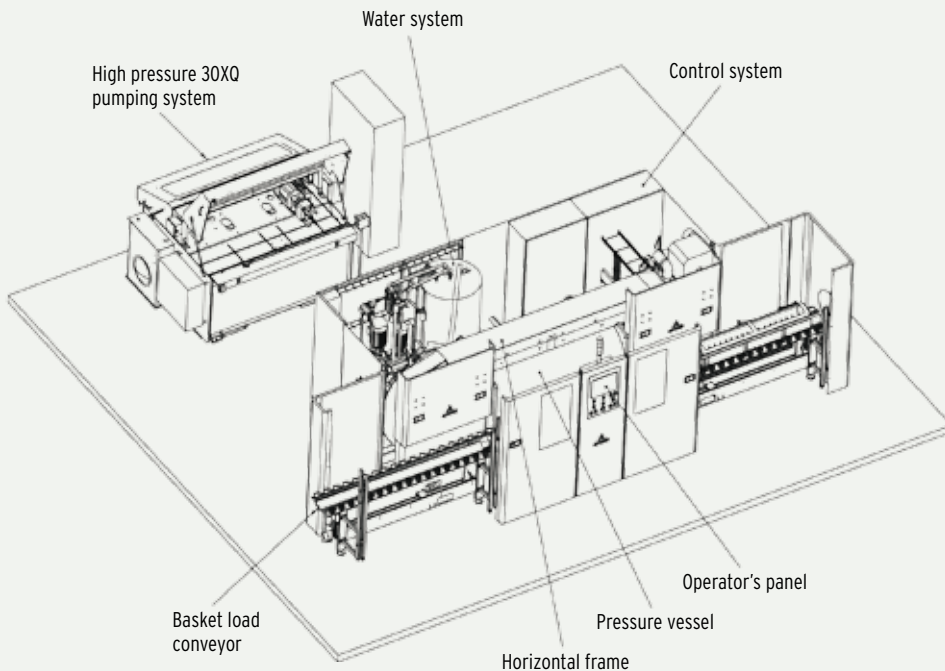
### Power requirements,

200 kVA, 3-phase, 480 V, 60 Hz / 400 V, 50 Hz

### Air supply

Minimum 6 bar (87 psi) oil-free air with capacity of 1 m³/hr (264 gal/hr)

Designed, manufactured and tested in accordance with ASME Boiler and Pressure Vessel Code, Section VIII, Division 3.



Typical system floor space dimensions 8.2 m x 5.8 m (27' x 19')



HPP ensures safe meat products, free from additives



The texture of HPP treated salsa is the same as for fresh product



100% meat separation from lobster shells

### Pressure vessel design advantage

The core of Avure's HPP 100L system is the Quintus pressure vessel, which consists of a wire-wound prestressed cylinder with removable end-closures supported by a wirewound pre-stressed frame. The end closures contain all the unit's water connections, plus the pressure and temperature sensors. The pressure vessel is opened and closed by automatic removal of the end closures. The pressure vessel has a number of patented features to provide safety and performance. For example a patented "leak before failure" mode for the vessel and intelligent sensors provide system safety and continuous monitoring of system health status on every cycle. Innovative large diameter closure seals handle the repeated stress and strain of continuous operation.

For more information please visit: [www.avure.com](http://www.avure.com) or email: [info@avure.com](mailto:info@avure.com)

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