

# QFP 350L-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

Industry leading capacity and cycle times for greatest throughput of any HPP system

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

Compact lightweight design allows for easy installation and relocation

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

## Industry leading performance and reliability

The 350L is Avure's 3rd generation high pressure processing platform and joins a product family used by customers such as APC, Perdue Farms, Hormel and Fresherized Foods to produce the majority of the world's high pressured processed food products.

The 350L system is a horizontal cylinder design built to serve installations where vertical space is limited and minimal plant alteration is desired. The horizontal orientation allows single direction in-line product flow that is compatible with most existing HACCP and QA programs. The 350L's industry leading capacity and all stainless steel construction meets the most demanding food processing needs.

With multiple pressure intensifiers and increased horsepower, the all new 30XQ pumping and decompression system gives faster compression and decompression cycle times resulting in the highest throughput in the industry. The system is based upon field proven technology and is unsurpassed in reliability and performance.

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 customer service and support staff is highly trained and deployed globally to ensure that our customers maintain maximum system uptime and efficiency.



## PRODUCT SPECIFICATION

### QUINTUS® Type QFP 350L-600

#### Production rate/Cycle time

The 350L can process up to 250 kg per cycle, depending on product size and packaging. Excluding hold time, the complete cycle time is approximately 5.7 minutes.

#### 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

350 litre (92.5 gal)

#### Internal diameter

386 mm (15.2")

#### Internal length

3,000 mm (118")

#### Total vessel and frame weight on foundation

46,000 kg (101,000 lbs)

#### Length of press

6.9 m (22.6')

#### Width of press

3.9 m (12.8')

#### Height to top of press

2.1 m (6.9')

#### 30XQ intensifier pump (dual configuration)

Stainless steel frame and protective covers for food plant environment.

Dimensions, LxWxH (each pump)  
2.0 x 1.6 x 1.4 m (83.3 x 61.3 x 53")  
3,270 kg (7,200 lbs)

#### Water module dimensions, LxWxH

2.0 x 2.0 x 2.0 m (80 x 80 x 80")  
3,000 kg (6,600 lbs)

#### Vessel temperature control module (optional) dimensions, LxWxH

1.2 x 0.8 x 1.6 m (48 x 32 x 61")  
420 kg (926 lbs)

#### Recommended input water temperature range

4°-16° C (39°-60° F)

#### Cooling water supply for dual pump configuration

84 l/min (22 gal/min) at 16° C water temperature

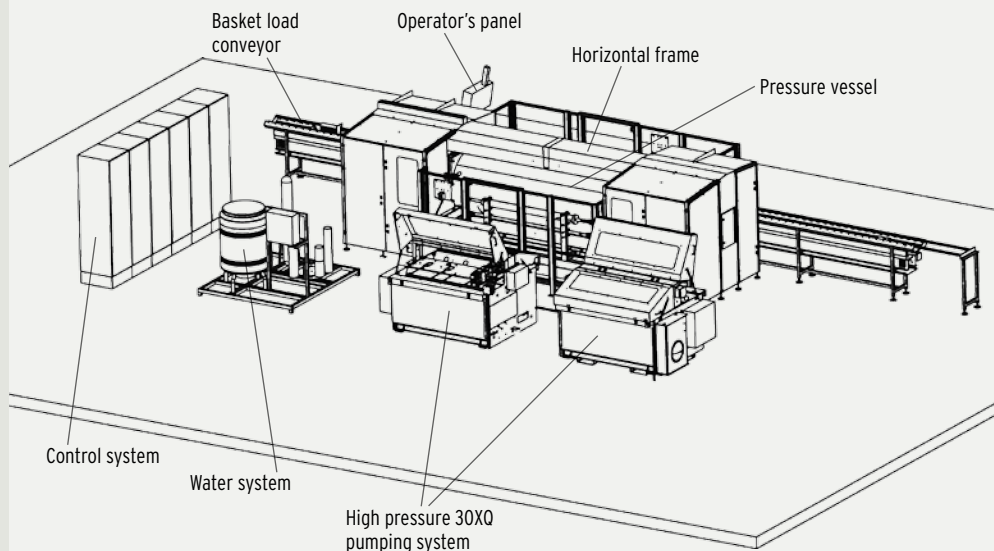
#### Power requirements, dual pump configuration

390 kVA, 445 amp power supply for 3-phase, 480V, 60 Hz  
370 KVA, 534 amp power supply for 3-phase, 400V, 50 Hz

#### Air supply

Minimum 5 bar (72 psi) oil-free air with capacity of 24m³/hr (880 ft³/hr)

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



Ready-to-eat meat



Guacamole salsa

#### Pressure vessel design advantage

The core of Avure's HPP 350L 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 closure along with translation of the cylinder itself. 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)

**Avure Technologies Inc**  
Americas Sales  
22408 66th Avenue South  
Kent, WA 98032, U.S.A.  
Phone: +1 800 610 1798  
Fax: +1 253 981 6229

**Avure Technologies Inc**  
Americas Service  
3721 Corporate Drive  
Columbus, OH 43231, U.S.A.  
Phone: +1 614 891 2732  
Fax: +1 614 891 4568

**Avure Technologies AB**  
Europe/Asia Sales and Service  
Quintusvägen 2  
SE 721 66 Västerås, Sweden  
Phone: +46 21 327000  
Fax: +46 21 141817

