QFP 215L-600
High Pressure Processing System

Features and benefits

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

Large pressure vessel diameter improves fill ratio leading to a higher product throughput

High capacity pressure system reduces total operation cost through shortened cycle time and maximized product throughput

Availability of Avure's world-class food technologists helps food processors utilize HPP as a competitive advantage in their own marketplace

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

Food safety and product quality

High pressure processing (HPP) can help create value added food products which are safer, fresher, longer-lasting and free of chemical additives. HPP effectively inactivates foodborne pathogens and spoilage microorganisms throughout the entire product, not just on the surface, regardless of product size or shape.

A passion for development

The 215L ULTRA from Avure, is a huge leap forward in the commercial application and accessibility of HPP technology. The dual-pump configuration uses a new generation of powerful pressure intensifiers. Pressurization, decompression, even system opening and closing occur faster than ever before. Multiple HPP units can be centrally monitored with a sophisticated pc-based controller. Our pressure vessel's larger diameter gives more usable space for bigger packages and greater volumes. The 215L ULTRA shortens cycle times to maximize product throughput. Designed for longer life, lower maintenance and improved operation, the 215L ULTRA reduces the overall cost for HPP technology.

Avure delivers more than safe and reliable HPP systems; we are a complete solutions provider. Our technical team, directing the entire installation project, can include automated material handling systems customized to fit into your production line. After intensive training in operations, maintenance and inventory planning, we partner with users to manage ongoing parts and service needs. And our world-class food science and microbiology lab services aid in the development, design, and regulatory approval of your new products. Add our in-house food scientist and microbiology lab services aid in the development, design, and regulatory approval of new products.

AVURE™
TECHNOLOGIES

PRODUCT SPECIFICATION
QUINTUS® Type QFP 215L-600 ULTRA

Production rate/Cycle time
The 215L can process up to 150 kg per cycle, depending on product size and packaging. Excluding hold time, the complete cycle time is approximately 4.5 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
215 litre (56.8 gal)

Internal diameter
390 mm (15.3")

Internal height
1,800 mm (70.8")

Total vessel and frame weight on foundation
37,000 kg (81,571 lbs)

Height from upper floor to hook (for loading/ unloading of the basket)
3.7 m (12.3')

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

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)

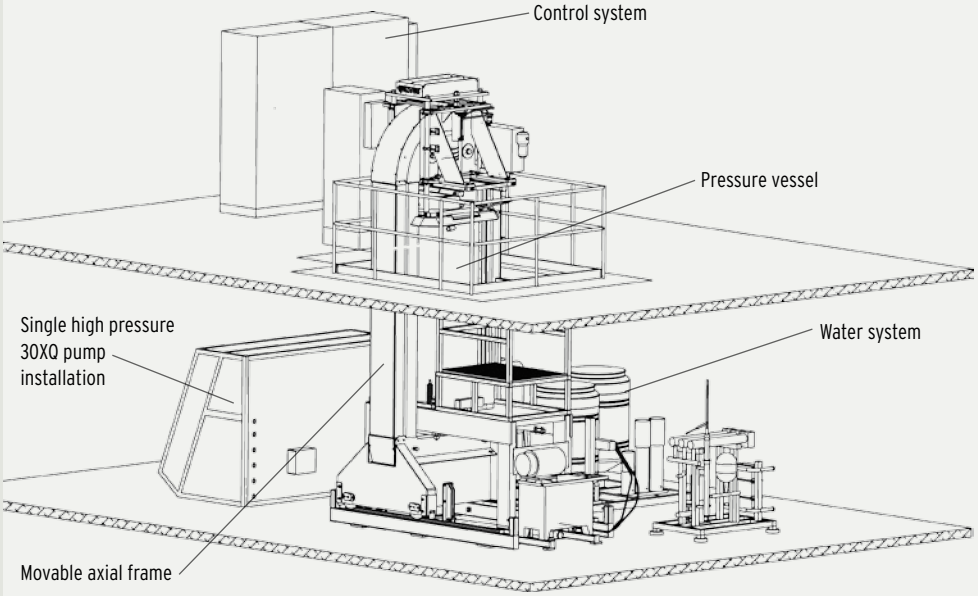
Vessel temperature control module (optional) dimensions, LxWxH
1.2 x 0.8 x 1.6 m (48 x 32 x 61")
420 kg (926 lbs)

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)



Ready-to-eat meat


Guacamole salsa

Pressure vessel design advantage

The core of HPP 215L ULTRA 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 axial frame. 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.

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