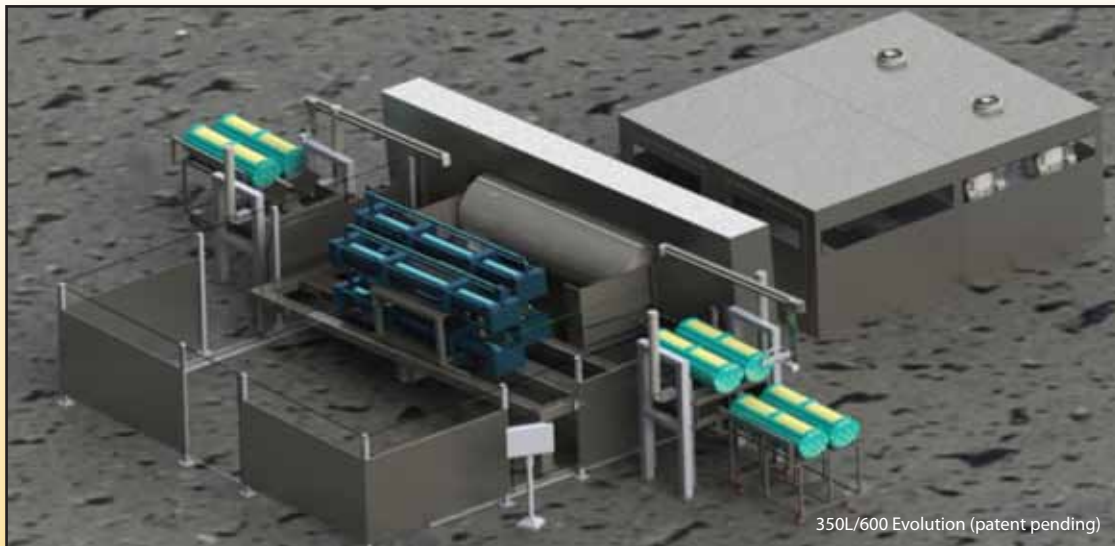




*A Forward Thinking Machine*

## **Evolution Series Overview**



Fresher Evolution HPP has integrated admired designs with its own improvements, bringing A Forward Thinking Machine to High Pressure Processing (HPP).

Fresher Evolution HPP entered the manufacturing space of High Pressure Processing machines after several years working with many of the current HPP machines and their respective manufacturers. Over those years our team noted the designs that were admired, the designs that could be improved, and the new ideas that could be engineered into a whole new platform should someone ever be ambitious enough to enter this market.

At Fresher Evolution HPP our Best of Breed Design affords our customers something the HPP equipment industry has never experienced: specialized service. Our primary components for Controls, High Pressure Valves and Tubing, and Powers Systems can be sourced locally through established supply and service channels. This will greatly reduce lead times, costs, and improve production uptime.

The sales and marketing partners of Fresher Evolution HPP have been researching our market for years to understand the needs, improvements, and future of this growing industry. Our teams are required to stay at the forefront of HPP applications. We can only achieve this with input from you, which is always welcomed.

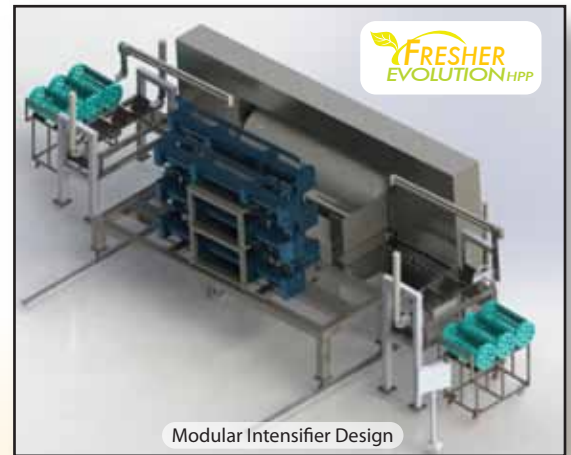
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# A Forward Thinking Machine

Fresher Evolution HPP's design and manufacturing team brings together proven solutions from leading worldwide companies in the fields of High Pressure Valves and Tubing, Hydraulic Solutions, Controls and Automation, Intensifiers, ASME U3 Design and Compliance, ASME U3 component manufacturing to build the Evolution Series, a truly forward thinking machine for the food industry:

- AutoFrettage Vessel
- Sloped Platform
- Integrated Plug, Tubing, and Intensifiers
- Basket Anti-Rotational Feature
- Hydro Static Variable Speed and Hydraulic Power
- Modular Growth
- Real Time Open Database



Our patent pending Fresher Evolution HPP series is made up of three different length vessels in order to meet our customers' needs, from small companies with niche markets, to the massive production of international companies. Every machine provides multiple intensifiers depending on its size and the configuration. The intensifiers are stacked on top of each other with minimal vibration and noise level. With the ability to quickly change the seal packages without disassembling the entire intensifier, coupled with longer time intervals between scheduled preventative maintenance, makes this machine very efficient.

<i><b>Evolution Features</b></i>	<i><b>Evolution Benefits</b></i>
AutoFrettage Vessel	NSF 3A compliant stainless steel liner and exterior shell, the middle layer is solid forged steel and the outer shell is solid forged steel that has been press fit with the middle layer. The result: a vessel that is extremely durable and designed to achieve several hundred thousand cycles in its lifetime.
Sloped Platform	Slight degree of tilt on the frame and vessel so that nature can assist in removing the air inside the vessel. Air is always predictable and rises to the highest point.
Integrated Plug, Tubing, and Intensifiers	Reduce the need for high pressure tubing and fittings between the vessel and intensifiers. Greatly reduce bends and fittings which cause leaks and costly downtime.
Basket Anti-Rotational Feature	Ensures our baskets do not flip or rotate during processing, preventing your product from ending up on the floor.
Hydro Static Variable Speed Hydraulic Power	Optimized 100 HP bi-directional pump(s) and motor(s) for each intensifier, constant circulation filtration, and intelligent monitoring, creates a very efficient and reliable hydraulic design that ultimately produces more product with less maintenance.
Modular Growth	Invest based upon your current production needs then increase capacity as your business grows by adding additional intensifiers.
Real Time Open Database	Validation software is integrated with the control systems to provide immediate traceability of processed product, real time performance reporting, and ERP/MRP plug and play.

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# The Fresher Evolution HPP Series patent pending

## 175L/600 Evolution

The 175L/600 Evolution is production scale equipment with a 175L net useful volume. Vessel diameter of 15.3" is standardized across all 3 platforms. The entry level version includes 1 intensifier with the modular growth option that matches your capacity needs without investing in a new machine.

## 350L/600 Evolution

The 350L/600 Evolution is the commercial equipment for industrial production. Due to its volume and vessel diameter (350 L and 15.3" respectively), it is our most economical entry point. Standard equipment is installed with 3 horizontal pressure intensifiers, which can work independently one from another, and can be expanded to a total of 6 horizontal pressure intensifiers.

## 525L/600 Evolution

The 525L/600 Evolution is the biggest and most productive machine in our series. The breakthrough of this machine is its volume of 525L with 15.3" diameter. The compact design, equipped with 4 intensifiers at a minimum, makes it the most productive machine to meet the high demands of food producers in the market.

### DIMENSIONS

Machine	∅ Inside mm. (inch)	Capacity liters (US liq. gallons)	Chamber length mm. (inch)	Total machine length mm. (inch)	Machine width mm. (inch)	Machine height mm. (inch)
175L/600 Evolution	386 (15.3)	175 (46.2)	1510 (59.5)	7020 (276.5)	2260 (89)	2770 (109)
350L/600 Evolution	386 (15.3)	350 (92.46)	3010 (118.5)	8520 (335.5)	2260 (89)	2770 (109)
525L/600 Evolution	386 (15.3)	525 (138.7)	4510 (177.5)	10020 (394.5)	2260 (89)	2770 (109)

### OUTPUTS

Machine	N of Intensifier standard version	Vessel filling ratio	Output** Kg/hour (pounds/hour)
175L/600 Evolution	1	70%	778 (1715)
350L/600 Evolution	3	70%	1181 (2604)
525L/600 Evolution	4	70%	2570 (5666)

\*\*Output: for pre-packed products processed at 600 MPa / 87,000 psi during 180 seconds depending on product size and packaging.



Basket Cart

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# Superior Service Commitment

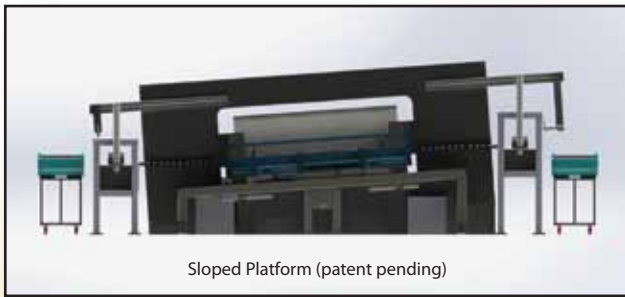
*The Fresher Evolution HPP Advantage is committed to serving our customers!*

Fresher Evolution HPP recognizes equipment requires local service specialists for each major component of the machine. We are not designing proprietary parts. This ensures readily available replacement options. Our engineers researched and recognize leaders in power systems, intensifiers, programming and controls, sensors, and high pressure valves and tubing. These industry leaders have established service programs across North America. Our equipment is also designed with open architecture to allow secured remote access to all programming.

## Safety and Maintenance

*Fresher Evolution HPP is at the forefront of providing a safe HPP experience!*

Safety of Fresher Evolution HPP starts with the Vessel, Plugs and Frame. The Vessel and Plugs are ASME U3 components, the Frame is not a required ASME component. All three of the Fresher Evolution HPP



Sloped Platform (patent pending)

components have been designed by an ASME U3 inspector with over 1,800 inspections worldwide. The air relief design maximizes the amount of air removal in the vessel prior to pressurization. There are pressure sensors and decompression valves on both plugs, safety monitoring of maximum pressures, and controls to ensure the vessel is depressurized prior to the platform moving out of the frame.

Fresher Evolution HPP standard designs follow the guidelines of the NSF 3-A and NEMA 4x on all models. These designations allow food processing companies to place the Fresher Evolution HPP machines directly inside the food processing facility.

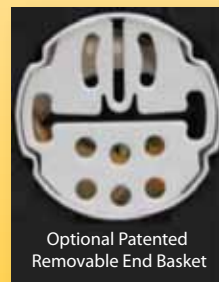
## Pre and Post Packaging Processing

*Our patent pending Fresher Evolution HPP machines are designed for ease of use and efficiency!*

An automatic loading/unloading system for the 175L comes standard equipped to handle two cycles and can be upgraded to handle four cycles. The 350L and 525L come standard equipped to handle a single cycle and can be upgraded to handle two cycles.



Evolution Standard Basket with Traceability Bar Coding



Optional Patented Removable End Basket



Tolling Pallets for Evolution Standard and Removable End Baskets

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