

ImmersionFlex Packs A Whole Lot Into a Very Small Footprint



Overview

ImmersaFlex is an incredibly flexible machine that creates powerful convective water motions that can rapidly thaw frozen food, thoroughly wash fruits and vegetables, and scrub tough stains on other equipment. The force and duration of these motions are custom-programmed, resulting in a fully automated process that makes operation simple, no matter what the task. By utilizing different speeds and motion patterns in temperature-controlled fluids, revolutionary outcomes can be achieved.

Multiple batches of compatible items can be processed simultaneously, allowing flexible and continuous processing. What's more, if processing is underway and a basket is empty, the operator has the freedom to interrupt a cycle to load new batches of products. Completed products are unloaded as they finish cycles. Individual batches of items can be assigned to specific positions in the system and each batch can be managed with its own specialized settings, via a basket map system.

ImmersaFlex uses a brief and unique automated CIP (Clean-In-Place) process that makes sanitation assured. A press of a button and the system is washed out with detergent, rinsed, and delimed before being sanitized. Plus, since ImmersaFlex does not use manifolds or pumps, you don't need to worry about the time, labor, and sanitation issues they entail.



THAW, DEGLAZE, CLEAN, SANITIZE - DONE.

Fruit & Vegetable Washing

All types of fruits and vegetables can be washed, rinsed, and crisped.



Rapid Bagged Food Thawing

There are three primary categories for bagged frozen food thawing: proteins, sauces, and soups. Other custom categories can be added as needed.



Seafood Deglazing & Par Thawing

All types of seafood can be rapidly and precisely deglazed, assuring that only the thin protective layer of ice is removed from delicate seafoods. Since ImmersaFlex is extremely gentle, even the most fragile seafood can be deglazed.



Specialized Washing

The standard ImmersaFlex can also perform a variety of general washing tasks such as parts and cutlery washing, meat tray washing, decarbonizing, and hood filter deep cleaning. ISI also offers a model that will robotically wash high volumes of rotisserie skewers.

Total Ease of Operation

ImmersaFlex is incredibly customizable and simple to operate. With touch screen operations that walk employees through each step and controls that are customizable to your operation, ImmersaFlex is a machine that requires almost no training to operate. Whether you're processing a huge amount of produce, thawing frozen bags of protein, or gently deglazing delicate seafood, ImmersaFlex will walk employees through each step to perfect outcomes.



Helpful notifications will guide the operator through every step. Bright interior LEDs

communicate the status of the current process from across the room. Touch screen instructions are available in multiple languages.

Users can load mixed items into ImmersaFlex at the same time, thanks to its basket mapping software. Just a few taps of the touch screen and you're on your way.





IMMERSAFLEX

Worry-Free Chemical Use

ImmersaFlex is equipped with a highly advanced product treatment and chemical dispensing system. During each process - fruit and vegetable washing, for example - a fruit and vegetable wash is precisely dispensed at exactly the correct time and in the correct concentration. Once dispensing is completed, all lines are thoroughly flushed with fresh water to assure that the lines are free of any residual product treatment or chemicals.

For further food safety, any time chemical dispensing is occurring, the appropriate lines are monitored to ensure that chemical is present in the lines. If a chemical reservoir runs dry, processing is paused, and the operator is notified and walked through product replacement – this includes automatic re-priming of the lines.

In addition to presence sensing, ImmersaFlex analyzes* each product treatment for chemical color and other characteristics to ensure that it is the correct product. For example, if a dark green product is seen where a light red product should be, all processes are paused and the operator is alerted and walked through how to remove the incorrect product and replace it with the correct product. ImmersaFlex will also explain how to handle any products that were processing when the incorrect chemical event occurred.

* Feature to be included in future software release, expected in mid-2023.

IMMERSAFLEX®

Tank Filling and Temperature Control

Once a process is selected, the tank will fill with water at a precise, predetermined temperature. If a food treatment product or another chemical is required, it will be added during the tank filling process automatically.

Magnetic Tank Cover & Safety System

ImmersaFlex incorporates an easy-to-use, durable magnetic tank cover with a safety switch that is tied to an audible alarm if not properly positioned. The cover is clear to allow team members to view what is underway inside the system at any time. For safety, if the tank cover is removed during operation, the system motion is paused.

Flexible, Mixed Load, Continuous Processing

Each of the ImmersaFlex processes can have between one and five baskets, each represented on the touch screen basket map. The same product can go into all the baskets or each basket can be loaded with a different product – with completion times tracked individually. As products complete, the operator is notified at which time products can be unloaded, and new products can be loaded into the available baskets.

Automatic Tank Freshening & Water Conservation

To save water and reduce downtime, ImmersaFlex incorporates a 100% programmable “tank freshening” system. For each process the tank can be freshened and food treatment products or other chemicals will be boosted based on actual elapsed system processing time. The drain can even be programmed to open for a set number of seconds during this process to evacuate sediment from the bottom of the tank.

ImmersaFlex can wash 150 pounds of potatoes in just six minutes!

Optional Chilled Water Supply and “Add Ice” Feature

In addition to hot and cold water inlets, ImmersaFlex includes a chilled water inlet for an optional ImmersaChill* chilled water system, to supply chilled water for processes where very cold water is needed. Alternately, ImmersaFlex will notify to “Add Ice” until the correct starting temperature is achieved.

*The ImmersaChill chilled water system is expected to be available by 3Q 2023.

Add Product Feature

If there are empty baskets, operators can add new items, even when other processing is underway. By pressing “Add Product” on the touch screen, the system will rise to the “Load/Unload” position, and new products can be added for processing.

Onboard Chemical Storage

Easy-to-access product treatment and chemical storage is located on both sides of the upper system cabinet. Products sit in stainless steel compartments that are easily removable for washing. Each concealed compartment can hold either three one-gallon containers or both a one gallon and a 2.5-gallon container.

Our “Thaw on Demand” can reduce your thaw times by up to 30X!

Industrial Grade Touch Screen Control

A large, intuitive touch screen guides team members through all operations and procedures.

Ergonomic Loading and Unloading

Using an optional trolley, baskets can easily be slid in and out of the system at an optimal height and then easily transported throughout the kitchen, where products can be easily moved to and from countertops.

CIP (Clean-In-Place)

ImmersaFlex is equipped with a fully automated, mandatory CIP system for thorough, computer-controlled system rinsing, detergent wash-out, delimiting, and sanitizing. This process uses two high performance spinning, tank-cleaning jets that are mounted in the top of the tank. This process takes about seven minutes and is automatically performed before moving from one process to another and upon system shut down.

Integrated Mini-Hose Reel Sprayer

A retractable mini-hose reel sprayer is included in the chemical drawer. The sprayer is on a 48” hose and, when required, the touch screen will prompt team members to inspect the tank and use the sprayer.

Cycle Completion Notification, Ultra-Bright Tank LED Lights & Audible Alarms

ImmersaFlex uses helpful lights so you can tell what’s going on at a glance. When processing, the lights will be blue. At cycle completion, they will shine green and when ready to unload, alternate blue and green. (An optional audible alarm can also sound.) At other times, the tank will radiate a bright white light for visual inspections.



Correct Product Treatment and Chemical Sensing

ImmersaFlex analyzes* each product treatment for chemical color and other characteristics to determine that it is correct. If, for example, a dark green product treatment or chemical is seen where a light red one should be, all processes are paused and the operator is walked through how to remove the incorrect product treatment or chemical and replace it with the correct one, as well as how to handle any products that were processing.

*Future software release expected in mid-2023.



www.immersionsystems.com

ImmersionFlex, ImmersionChill, and Immersion Systems, Inc. are trademarks of Immersion Systems, Inc. ImmersionFlex, patents pending.

Immersion Systems, Inc. is in the process of completing the ImmersionFlex system's NSF and UL certifications for the United States and Canada. These certifications are set to publish in January 2023. International certifications will be completed by Q2, 2024.