

The World's Most Hygienic Freezers

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IQF freezers

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+hygiene
+innovation
+partnerships
+efficiency
+service
+quality

WHO WE ARE About FPS

FPS Food Process Solutions is a global leader in turn-key food freezing and cooling equipment. We provide innovative systems to ensure the highest efficiencies and to meet the most stringent sanitary demands. These factors transform into superior food quality, lowered total cost of ownership and maximized profits.









IQF Tunnels

Our range of Individual Quick Freeze (IQF) tunnels implement a combination of pneumatic and mechanical fluidization techniques for product separation. This ensures careful freezing for a wide variety of food products. For special applications, we offer a perforated Intralox acetal belt solution which ensures enhanced IQF performance for even the most difficult products. The combination of our IQF technologies and our hygienic design fundamentals ensures you have a high performance tunnel freezer with the highest in food safety standards.

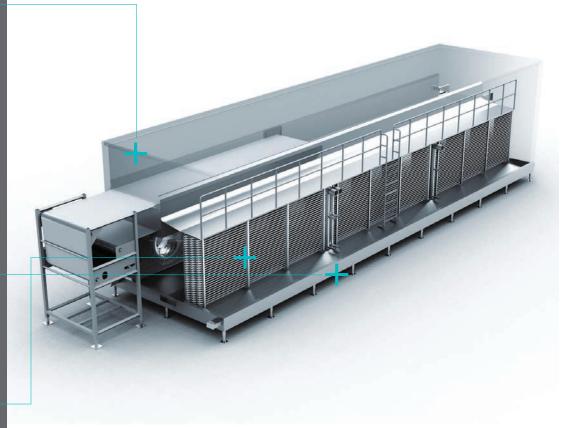
Our robust fully welded enclosure is manufactured using heavy gauge stainless steel and high-density polyurethane insulation. This construction eliminates dangerous bacteria harborage points and the ongoing task of inspecting and caulking panel joints.

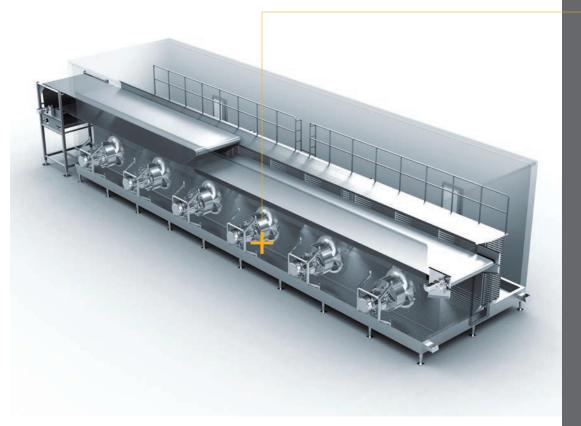
Our flexible panel joints have continuous TIG welds to ensure smooth food safe surfaces and to allow for expansion and contraction during temperature changes.



For extended operation without shutdown, our synchronized sequential hot gas defrost system ensures seamless operation without impacting freezer performance and product quality. With precise airflow control, product always sees the same air temperature and velocity ensuring consistency throughout production.

Our freezers can be raised for access for cleaning and inspection under the freezer. With specialized telescoping legs and articulating mounting plates the freezer can match all existing plant floors.





EXTERIOR

The importance of hygienic design pushed us to think outside the box-literally. A specially engineered, welded wall and floor system incorporates an embedded support structure, allowing motors and gearboxes to be mounted on the outside of the enclosure. This not only protects components from the harsh internal environment, extending their service life, it eliminates many ancillary components such as conduit and junction boxes which greatly improves cleanability. This revolutionary design reduces the total cost of ownership by improving uptime while cutting maintenance and energy costs.

INTERIOR

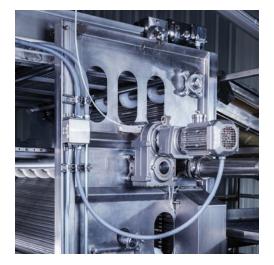
Our focus on hygiene can be seen in the details of FPS's assembly techniques, such as seamless welding to eliminate bolted support structures. removing hollow or angle shaped supports that are difficult to clean and elevating the internal structure off the floor to prevent debris getting trapped under support pads. We also strive to minimize total surface area and components inside the freezer. This creates easier and safer access for maintenance and inspection while improving airflow and cleaning performance. These small details create big savings for our customers.

+Advanced Airflow + Circulation Fans

The one-piece radial fans are designed for ease of cleaning and minimal maintenance. With options for aluminum or stainless steel construction, we can design for varying levels of chemical regimens. Equipped with VFDs, the high pressure fans located below the product zone allow precise control of air velocity ensuring excellent product separation with minimal blow-over and low energy consumption. Mechanical agitation further enhances the flow of product through the freezer.

+ Recirculating Clean-In-Place (CIP)

Our integrated CIP with compact skid provides repeatable and consistent full freezer cleaning with minimal consumables, manpower and energy. The dishwasher concept with recirculation and pasteurization maximizes freezer hygiene.



Integrated Infeed Station

Incorporates a steam and water spray box and high-pressure drying system to remove ice and water from the belt during production. A CMP Fluid Removal System (FRS) can be integrated to increase product dewatering.



Fully Welded Stainless Steel Floor

Our bathtub design floor is insulated with polyurethane and shaped with compound slopes for effective drainage and to prevent water pooling. A non-slip surface provides safe access inside the unit. The floor structure integrates solid studs for welding to internal support structure.



High Performance Evaporator Coils

Our custom designed evaporators are offered in a range of fin materials including aluminum, stainless steel or anti-microbial Cupronickel. We match stainless steel tube to chosen refrigerant whether NH4, Freon or CO2. Variable fin spacing and heavy duty fins allow for frost accumulation and durability.



Internal Support Structure

With SS304 stainless steel construction, internal structure is designed to reduce horizontal flat surfaces and utilizes round non-hollow structures to prevent water pooling. CIP piping is integrated as part of the support structure reducing surfaces requiring cleaning and energy to cool excess material.



Optimized Hygienic Design

Achieved through focus on details. Smooth TIG welding, sloped surfaces, minimal lap joints and bolting, with spacers used when required. Hollow structures are completely eliminated with our innovatively designed frame. Unnecessary surfaces and components are eliminated from inside the equipment.



IntelliSolutions Control Panel

Our PLC-based touch screen controls are easily navigated with customizable access levels and recipe programming. With various diagnostic tools and trend logging, problems can be easily addressed which can be furthered with our remote monitoring and troubleshooting services.



FPS RECIRCULATING CIP SYSTEM WITH PASTEURIZATION

- + Dishwasher cleaning concept
- + Recirculation with filtering and automatic water heating
- + Multiple cleaning zones with individual scrubbing and soaking times
- + Compact skid with filter, heating and high volume pump
- + Balancing trough with rough filter and return pump
- + Full freezer pasteurization option

ADVANTAGES OF THE FPS CIP SYSTEM

- + Ability to clean with higher temperatures and more aggressive chemicals than manual cleaning
- + Maximum water impact with minimal consumption and time
- + Cleaning can start when production ends without defrosting saving valuable time
- + Efficient use of energy and chemicals reduces costs
- + Consistent and repeatable results with minimal labor improving safety
- + Full freezer cleaning and pasteurization ensures no bacterial contamination of food

Key Benefits of the



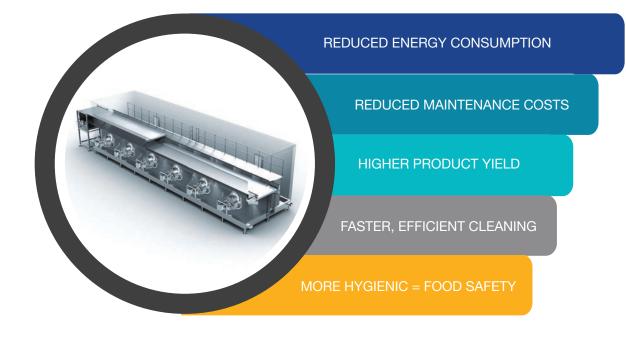
END-TO-END SOLUTIONS

We offer a one-stop-shop solution to meet our customers' needs. CMP and FPS provide the best in class turn-key food freezing and cooling equipment and complementary end-to-end solutions that ensure our customers' products are managed through every step of the production process. In addition, our process line specialists welcome the opportunity to provide layout assistance and equipment recommendations for the entire end-to-end system.

Our end-to-end solutions are designed to orientate and space product while meeting production rate. All components are seamlessly incorporated into the process line leveraging innovative hygienic design, integrated controls, and precision manufacturing with a custom engineering approach to meet our customers' needs.

Our process line specialists welcome the opportunity to provide layout assistance for the entire end-to-end system in order to incorporate the required equipment solutions into our customers' plant constraints.

FPS set a mission from Day One. To make a difference in paving a new standard in hygienic freezers through creative design and innovative solutions. FPS will lead the way in raising the bar.



The World's Most Hygienic End-to-End Solutions

(CMP)

IQF TUNNEL FREEZER END-TO- END SOLUTIONS

Our feed solutions for IQF tunnel freezers are designed to maximize the efficiency of the tunnel and increase product quality. Our patented FRS dewatering system removes water from the surface of the product to improve tunnel capacity. Our glazing system at the outlet of the freezer offers concise control of percent glaze pick up.

We can seamlessly incorporate controls of all end-to-end solutions including the IQF tunnel into the same panel offering integrated system performance. All our solutions are hygienically designed and include tote dumpers, sanitary conveyors, ozone wash conveyors, FRS fluid removal systems, bias discharge shakers, glazing conveyors, vibratory grading systems, and sanitary incline conveyors to the scale deck.

+ quick response arge parts inventory knowledgeable staff payment options

FLEXIBLE PAYMENT OPTIONS

In-house Expertise, Mutual Benefits

Given the high capital investment required, FPS can help facilitate preferred payment options such as Standard Progress Payment, Long-term Equipment Finance & Leasing, Irrevocable Letters of Credit and LC Discounting. This unique "one shop stop" service provides customers ease of mind in navigating various payment options to best fit their financial needs - all to ensure the lowest total cost of ownership. That is the FPS promise.

GLOBAL PARTS & SERVICE CENTERS Whatever the Need, We Have You Covered

Experience tells you the importance of efficient and responsive service - FPS has you covered. Our 24-hour support hotline puts you in direct contact with a real-world technician, not just an answering service. With the largest freezer service team and spare parts inventory in the industry, FPS support can assist in getting your equipment back in production with minimal disruption.

"We believe that through collaboration, we create value. When you enter into a partnership with us, you join our family. Together, we promise to set new standards."

partnerships

Through Partnership and Collaboration, We Build Success

Jeffrey Chang, President **FPS Food Process Solutions**



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