

A photograph of a complex industrial tote handling system. The system consists of multiple stainless steel frames, each with a flat top surface and a perforated metal base. These frames are arranged in a line, likely for transporting and sorting totes in a food processing plant. The background is slightly blurred, showing more of the facility's infrastructure. A large, semi-transparent teal graphic element is overlaid on the left side of the image, partially obscuring the machinery.

**total**  
SOLUTIONS

A Proud Member  
of the **FPS Family**

# TOTE HANDLING SYSTEMS

*Crafting Pure Food  
Processing Solutions*

## WHO WE ARE

### About TSL

TSL is a proud member of the FPS Food Process Solutions Corp. FPS global family. We are based in Auckland, New Zealand and serve the Australasia region. We pride ourselves in communicating closely with our clients taking projects from conception to completion. Our in house team of skilled professionals are capable of handling a wide array of multi level industry projects that include mechanical and electrical design, manufacturing, fabrication and installation.

## OUR VISION

### To Protect Food Quality and Safety

We bring decades of engineering experience and FPS's global commitment to Revolutionizing Hygienic Standards to the food processing sector. We listen to our customer's needs and work collaboratively to bring innovation and creative solutions to every project. Through innovative and hygienic design, we will protect the pristine quality of your food.

## OUR MISSION

### Crafting Pure Food Processing Solutions

From our hygienic designs, to our material and component selections, from our engineers, to our welders and fabricators, from our project managers, to our installation teams; our food processing equipment is designed with one focus to deliver innovative food processing solutions for safe food production. We will protect and guard the quality of your food.



# INGENUITY + ENGINEERING EXCELLENCE

## OVERVIEW

Our tote handling systems have been developed specifically for the food industry such as fruit, vegetable, seafood, meat, poultry, and other food processing facilities. Throughout the raw material handling area, process floor, and packaging area, our tote handling systems are hygienically designed to deliver the product into the production line safely and efficiently.

Some of our solutions include dumpers, flippers, elevators, de-stackers, washers, and storage systems.

We customize the size, capacity, and automation of each tote handling solution based on our client's specific needs and container design. Only food grade materials are selected to allow for ease of sanitation and safe food handling.



# TOTE DUMPING + LIFTING SOLUTIONS



**SINGLE STAGE  
TOTE DUMPER**



**BARREL DUMPER -  
TOWER STYLE LIFT  
+ DUMP**



**CAPTIVE  
STYLE  
TOTE  
DUMPER**



**FLOOR  
LOAD  
BARREL  
DUMPER**

**WE DESIGN SOLUTIONS FOR ANY SIZE OR STYLE OF BIN, TOTE, PAN, TRAY, BARREL OR BUCKET THAT REQUIRES DUMPING OR LIFTING.**

## *Hygienic Design*

Stainless Steel components are selected for full washdown service and ease of sanitation. Fully welded construction and precision TIG welds eliminate harborage areas.

## *Customizable Solutions*

Customized equipment to fit any size barrel, bin or tote. Tower height requirements can be accommodated for any height. An easy to use control panel is designed to start and stop your tote dumping equipment at the push of a button.

## *Hydraulic or Electric Power*

Our dumpers utilize either hydraulic cylinders and power units or electric motors to effect the lifting and dumping depending on the application. Stainless Steel components are used for the process area.

## *FM Elimination*

We offer two types of tote dumpers to eliminate FM carry over from the pallet two stage and captive style dumpers. For captive style dumpers a separate set of cylinders is used to raise the floor of the dumper capturing the top of the tote under a lip ensuring that only the product inside the tote flows to the production line.

## *Multiple Tote Heights*

Our retaining bar adjusts every 2 inches to accommodate a variety of different container heights. An automatic adjusting system is available as an option.

## *Robust Frames*

Our robust stainless steel support frame is designed to handle loads up to 3000 pounds. Precision continuous TIG welding ensures the frame is free from cracks or crevasses eliminating harborage areas.

### Manual wash box

A roller conveyor is coupled with an enclosed spray wash cabinet. Curtains on the in feed and outfeed prevent water leakage. A single pump supplies pressurized water to a series of spray nozzles arranged in a staggered pattern, thoroughly washing the inside and outside of the totes.

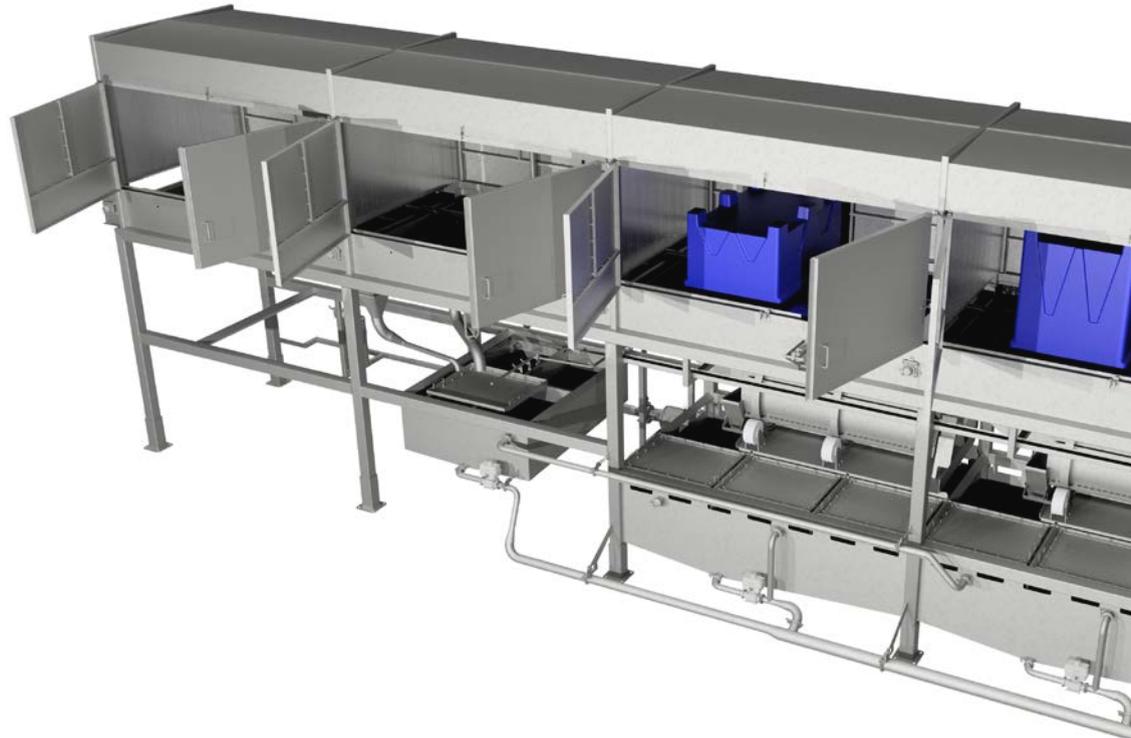
### Semi + fully automatic conveyor driven tunnel washers

Featuring 3 or 4 stage washing including initial high pressure spraywash, sanitizing chemical wash, high pressure rinse, and a final application of sanitizer if required. Separate pumps and collection tank zones allow for re use of water and chemicals.

### Water Conservation

For heavily soiled totes with large particulate, a screening reel or tri rod angle screen can be added at the first stage high pressure wash to recover and re use wash water in a recirculation loop reducing water consumption.

# TOTE WASHING SYSTEMS



## CUSTOMIZABLE SOLUTIONS

TSL makes a full range of tote washers from manual, semi-automatic, and automatic tunnel style for washing and sanitizing of pans, lugs, bins, trays, totes, Xactics, and barrels.

# TOTE HANDLING SYSTEMS



## CUSTOMIZABLE SOLUTIONS

Regardless of how you need to move, dump, flip, wash or store your totes, our experienced team can build a solution that meets your needs. We often combine several pieces of equipment to form an overall tote handling system. Our robust stainless-steel products are hygienically designed, and fully welded to eliminate harbourage areas.

### Tote stacker + de-stacker

Our tote handling system can be customized to accept totes of various sizes. Totes can be loaded into the system 4 or 5 totes high. The system de-stacks the full totes into individual totes, flips the tote, washes the tote and re-stacks the empty totes ready to be loaded back onto the truck. The system comes complete with a control system that allows the operator to adjust dump speed depending on production requirements. Weigh scales can also be added to the system to assist with automatic adjustment of plant feed.

### Pan Flippers

TSL has developed a high-speed dumping system for various lugs or pans used in the berry process industry. The control system allows for automatically setting of dump speed as fast as a tote every 3.5 seconds (17 totes per minute). Totes are ejected upside down and typically travel to an automatic tote washer that can also be supplied for a complete pan dump and wash system.

### Tote storage

Totes are received by the infeed tote shuttle, the tote travels to the appropriate storage row on a linear rail system and is released into the gravity feed laneway. Built in speed controllers are installed within the lanes to minimize flow speed and eliminate tote damage. FIFO flow philosophy is used. A pneumatic gate will control tote delivery to the discharge shuttle. Elevators are incorporated for large scale, multi level tote storage systems.

### Add Back System

Add back systems are routinely used in packaging lines to allow for an effective off load and re load of product should production line rates and equipment downtime require a storage buffer. Our hygienically designed turn key system includes a tote dumper, hopper with live load bottom belt conveyor and a delivery conveyor or incline conveyor to packaging.

# TOTE HANDLING SYSTEMS TO MEET EVERY NEED



## INNOVATIVE CONVEYOR SOLUTIONS FOR:

- Plastic Modular Belting
- Rubber + Fabric Belting
- Wire Mesh Belting
- Incline + Decline Applications
- Radius Conveyors, Custom Curves
- Spiral Applications
- Trough Conveyors
- Fluid Removal System (FRS)
- Homogeneous, Solid Urethane Belting
- Dewatering Conveyors
- Vibratory Conveyors
- Tote Handling Conveyors
- Ozone Wash Conveyors
- Merge, Divert + Sort Applications
- Heavy Duty Cut Conveyors
- Case Handling Conveyors
- Stacked Trim Table + Pack-Off Conveyors



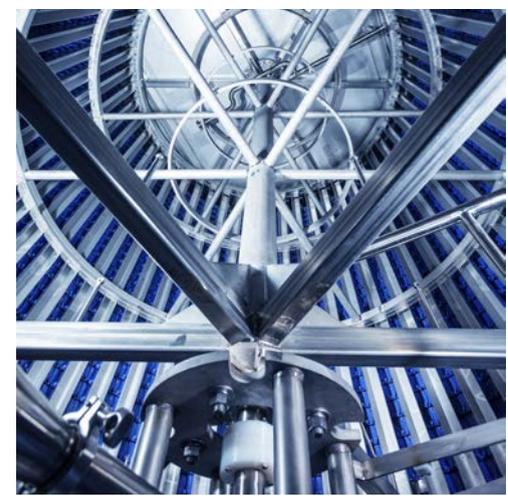
We work with each food processor to determine exactly what kind of solution is required to solve their problem. Through a detailed scope development process and active listening, we determine the best application for your processing needs. Leveraging our hygienic design engineering experience we challenge our team to innovate and solve problems others cannot.



All design, draughting and engineering work is carried out in house by qualified and experienced staff with help of our Global team at CMP and FPS wherever required. TSL workshop facilities includes MIG and TIG welders, guillotine, brake press, punch presses, punch and shear, rolling machines, drill presses, turning and more.



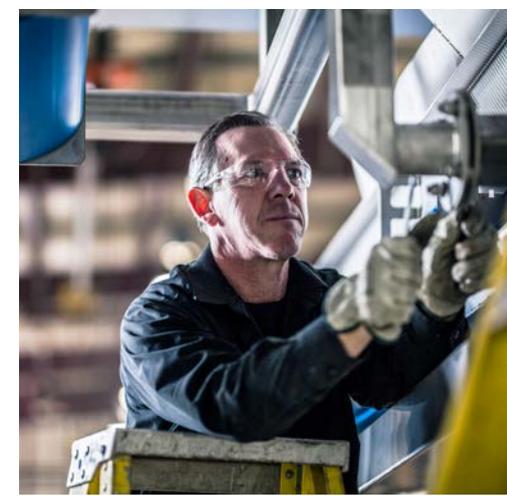
You can have confidence that everything we design, manufacture and install is carried out using sound engineering practices and internal quality control procedures.



As a subsidiary of FPS Food Process Solutions Corp, we are part of a global enterprise dedicated to manufacturing the safest food processing equipment in the world. We source our materials from only the highest quality producers and hold our staff accountable for being part of the food safety movement.



Total Solutions always strive to identify new and innovative solutions to meet our client's needs. We pride ourselves in partnering with our clients to create solutions. Using Total Solutions vast knowledge base means we have confidence to deliver the most effective solution for your needs from conception to completion.



Our large installation team travels across the globe to ensure the installation of your equipment is completed with quality precision and accuracy. We work alongside you during commissioning and do not leave your facility until you are satisfied with your equipment installation and the service you've received.



# TSL SOLUTIONS

- **SPIRAL SYSTEMS**

Direct Drive and Side Drive Technology Solutions

- **TOTE HANDLING SYSTEMS**

Dumpers, elevators, washers, storage systems

- **BATCH AND CONTINUOUS COOKERS**

Atmospheric steam, high pressure steam, hot water

- **BATCH AND CONTINUOUS CHILLERS**

Fresh water, brine

- **FLUID REMOVAL SYSTEMS**

Belt conveyor, vibratory conveyor, suction plenum systems

- **SEAFOOD PROCESSING SYSTEMS**

Complete process lines for lobster, crab, mussels, and other shellfish.

- **FRUIT PROCESSING SYSTEMS**

Complete line cranberries, blueberries

- **ADD BACK SYSTEMS**

Tote dumping and even flow of frozen product back into the packaging line

- **PROCESS TANKS AND STORAGE TANKS**

Wide range of single wall and jacketed tanks to 20,000 gallons capacity

- **SANITARY CATWALKS, MEZZANINES**

Sanitary Catwalks, platforms, support structures and mezzanines

## total + FPS FOOD PROCESS SOLUTIONS SOLUTIONS

### THE WORLD'S MOST HYGIENIC END-TO-END SOLUTIONS

TSL provides engineered equipment solutions to meet the many challenges of feeding and discharging product for IQF freezer tunnels, impingement tunnels, spiral freezers, carton freezers and other freezer solutions manufactured by our parent company FPS.

Together we can incorporate all of the required equipment into a turn key end to end solution including engineering, manufacture, controls and installation to optimize the freezing process with an integrated solution specific to our customers' needs.



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