

# Frozen Food Handling

with Cold Room Applications



*Bulk Food Handling*

*Container Handling*

*Case & Pallet Handling*



**NERCON**

[www.nerconconveyors.com](http://www.nerconconveyors.com)

# Bulk Food Handling



*Hopper Conveyor System*

Experience matters in frozen food handling. A high degree of knowledge is crucial to the success of new conveyor lines and equipment because of the special engineering and equipment requirements in a 32°F to -40°F manufacturing environment.

Nercon's line layout and engineering concepts focus on:

- Worker ergonomics
- Reducing cold room man hours
- Maximizing throughput
- Maximizing energy efficiency
- Minimizing waste



*Reversing auger in pull-out full access position.*



*Hoppers, conveyors and devices are bead blasted, stainless steel, sanitary construction.*

This system was engineered for handling frozen food in a -20°F manufacturing environment. The system provides the manufacturing process of breaking up clusters of frozen bulk product, then mixing the ingredients to prepare for saleable packaging.

Adaptable to accept six different ingredients with various take-away routes, the system also utilizes reversing augers beneath the hoppers which allows discharge from two independent points. The added feature of multiple discharge options and mixing flexibility allows the capacity for additional product volume.

Nercon has provided engineered equipment and conveyors not only in the frozen bulk ingredient market, but also has expertise with meat products and shredded and block cheese. In addition to the special hopper system highlighted above, Nercon has supplied sanitary design belt conveyors such as inclines, trough belts, noser belts and scoop elevators to handle bulk products.



# Container Handling

Nercon is a preferred supplier to top frozen dairy product manufacturers, having engineered sanitary packaging lines that convey round and rectangular cartons, pails, cases and bundles as well as special ice cream packages like “sqrounds” and “squails”.

Equipment engineered and manufactured for cold environments includes:

- Accumulators
- Pressureless single filers
- Alpine systems
- Servo diverters
- Lift stations
- Elevators

Many other types of industries have been served by Nercon equipment utilized in refrigerated rooms, including frozen appetizers, pastries, dinners, side dishes and meat entrees. Nercon has handled packaging types from wrapped and unwrapped trays, bags, cartons and sleeved products.



*Nercon's engineering team provides packaging line layouts, line efficiency studies, project management, mechanical and electrical engineering, installation and site management.*



*This divert gate balances the flow of ice cream bundles between two lines.*



*This secondary packaging line utilizes Acetal chain for reduced maintenance in cold environments.*



*This pressureless single filer effectively aligns frozen food trays along the long axis of the package.*



*This mat-style system features multiple spurs using overhead servo merges to combine form-and-fill packages of frozen appetizers.*



*Plastic belt systems provide ease of layout in this six-pack ice cream bundle handling application.*

# Case & Pallet Handling



*Nercon's competence is engineering and manufacturing conveyor systems and equipment that are the best fit solutions for the application.*

Conveying food in temperatures at or below freezing presents unique challenges to food manufacturers. Nercon works with the project team to design systems that reduce downtime, improve fulfillment speeds and make overall work environments more suitable to floor personnel.

Nercon's extensive fabrication capabilities combined with large assembly facilities provided over 1000 feet of cold-room engineered, heavy-duty case conveyors for the meat processing plant shown in this photo.

Plastic belt conveyor expertise includes horizontal and vertical diverts, curve inclines, merging and cleated inclines. Case handling equipment includes case elevators, vertical conveyors, and serpentine case accumulators.



*The angled roller belt diverting system above used activated rollers to divert cases without the use of gates or pushers. Designed for operation in 0°F environment, the system featured a smart scanner that was controlled to direct the cases to 1 of 3 palletizer diverting paths.*



*This system was designed to single file shrink wrapped bundles of ice cream in a 0°F operating temperature. It features a drop-out take away conveyor for misoriented bundles.*



*Specially engineered for a 35°F environment, this stainless steel, dual strand, pallet handling system was fully automated and designed to replace manual operations.*