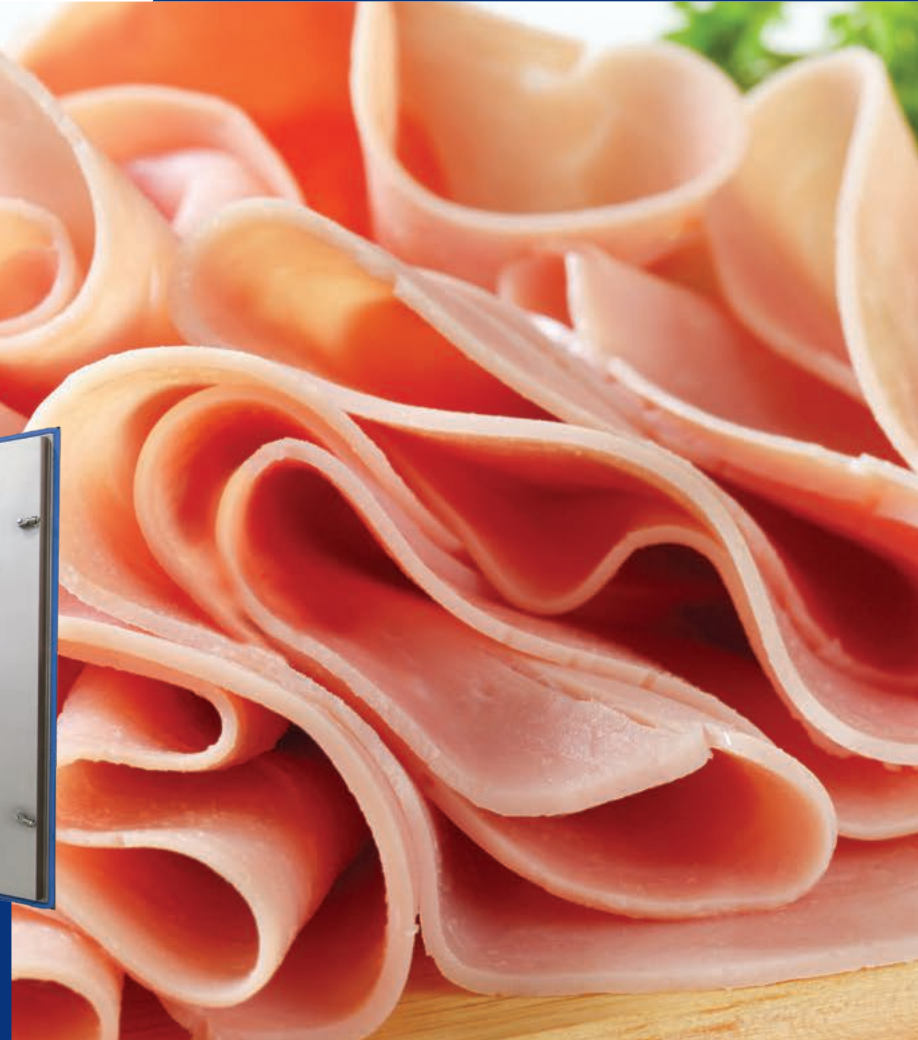


CONTINUOUS AIR CHILLING & FREEZING

SOLUTIONS



Ultra-hygienic Freezing & Chilling
Solutions for Ready-to-eat Foods


MARLEN
A DURAVANT COMPANY

PRECISE RESULTS

ULTRA-HYGIENIC.
RIGHTSIZED.

Marlen advances chilling and freezing solutions by incorporating the latest in ultra-hygienic sanitary design, servo motor technology, smart controls system with icon-based operator interfaces, and safety features. Marlen's unique coil design, horizontal airflow, and steam sterilization are at the core of the design, delivering unmatched uniformity and food safety, while maximizing productivity per square foot. These advanced freezing systems are innovatively compact, minimizing energy utility requirements, reducing operating costs, and boosting overall efficiency.

The control system instantly adjusts to operator recipes with precise results, so you can yield those juicy, crispy, tender, premium products. This translates to better efficiency and uniformity and safer food. Marlen Continuous Air Chillers and Freezers – **Better Process...Better Food®**.

EQUIPMENT SPECIFICATIONS:

- Operating temperature: -40° F (-40° C) for freezing, 18° F (-7° C) for chilling, or as high as 180° F (82° C) for steam sanitation
- Refrigeration: ammonia, freon, or glycol
- Residence times: vary by application (10 min to 2.5 hours)
- Capacity: standard size models range from 225 lbs (100 kg) / hr to 20,000 lbs (9,000 kgs) / hr
- Services utilities require refrigeration, steam, electric, water, drain, extraction, and EWON remote connectivity
- Safety compliance met for CE. UL Panel and local regulations; manufactured in the USA.



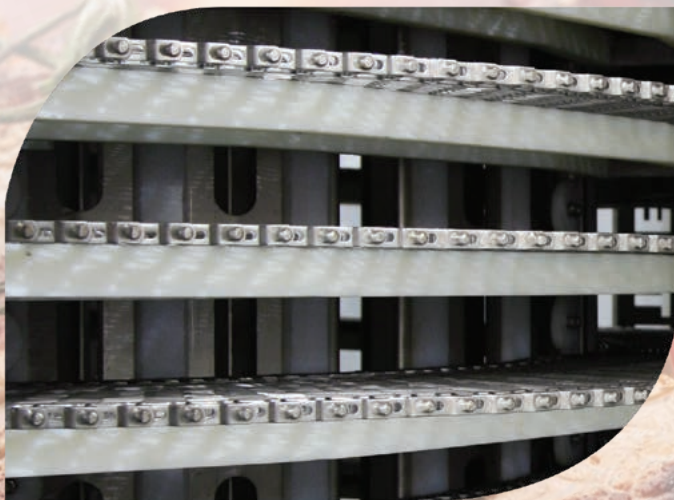


ADVANCED DESIGN FEATURES & BENEFITS

- Fully welded, 304 and 316 stainless materials for increased lifespan and pathogen resistance
- Streamlined internal supports profile for optimum airflow and post-sanitation inspection
- Externally-mounted fan motors for reduced heat load and easier access for maintenance
- Optional servo motors monitor rotation at 1,000 times per second, providing instant torque for consistently accurate speeds. Servo assures tightest tolerance under the extreme weights of full product load.
- Customer-driven intuitive icon-based HMI for recipe selection, maintenance, and sanitation; multi-language options. Single operator required for processing and sanitation.
- Remote monitoring, login for maintenance, and data logging capabilities for the ever-evolving IoT and Manufacturing 4.0
- Optional no-leak patented sealed electrical boxes withstand 1,350 psi direct spray to edge of silicon seal; hygienic cable management system; IP69K-rated stainless steel 8-port block with push-lock plugs and I/O indicators
- Fully integrated CIP uses combination of high-volume rinse, recirculated chemical wash, belt-brush contact, and steam sterilization
- On-the-fly defrost for select models allows for longer production runs with less downtime



ENGINEER SIMULATED HEAT TRANSFER STUDIES HAVE BEEN USED TO OPTIMIZE THROUGHPUT CAPACITY AND THE CONSISTENCY OF YOUR FINISHED FOOD PRODUCTS.





SPIRAL AIR CHILLING & FREEZING FOR RTE:

- Ideal applications include unpackaged ready-to-eat food products, such as convenience foods and deli products, otherwise at risk for cross-contamination during chilling and freezing
- Horizontal airflow pattern provides controlled product cooling and freezing, reduces airborne particulates caused by forced air
- Mechanical refrigeration allows for lower operating cost than expensive cryogenic gas refrigerant
- Scalable model concept with plug-and-play utilities, fast delivery, and configurable interior options to suit your specific products (e.g. number of belt tiers, usable width)

VERTICAL CRUST FREEZING FOR SLICING:

- Continuous solution for optimizing the surface of a deli product 2-4 mm deep at 25° F (-4° C) to 21° F (-6° C) which eliminates slithers, folds, and ensures slice stackability
- Multiple high-velocity variable speed fans (10,000 CFM each) force air in a 360-degree horizontal pattern for higher, more efficient air temperatures than achievable via static air freezers
- Evaporation from the product is halted once the surface temperature is below 20° F (-6° C), producing an air knife that envelops the product
- Unique vertical design minimizes footprint

DIRECT STEAM INJECTION (DSI) FOR STERILIZATION:

- All internal structures are fully welded to handle the heat. The outer shell of the evaporator is designed so as not to harbor bacteria.
- The freezer and its contents can be raised to a temperature of 180° F (82° C) for 35 minutes. The belt is static during this process.
- The fans operate to draw energy through the box, establishing complete exposure to 180° F (82° C) wet steam, for effective sterilization



ULTRA-HYGIENIC DESIGN



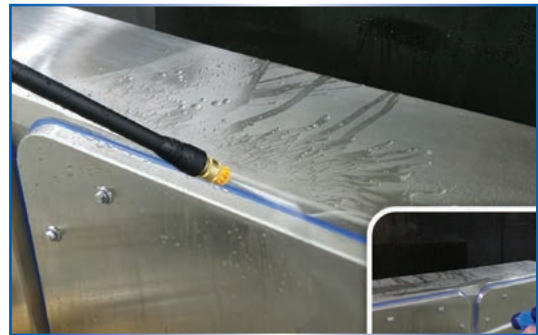
8-PORT STAINLESS STEEL BLOCK



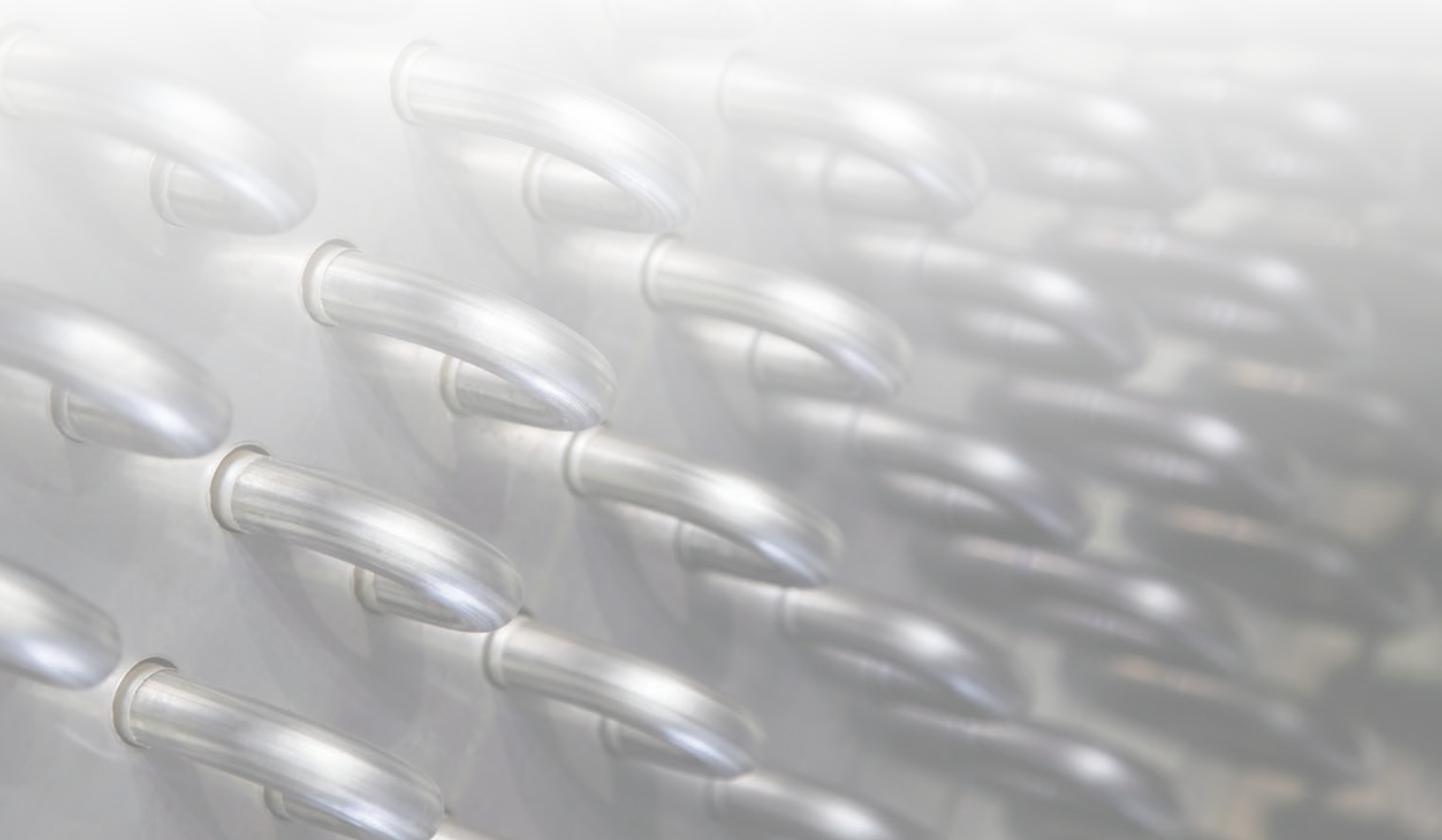
ICON-BASED HIGHLY INTUITIVE HMI



HYGIENIC CABLE MANAGEMENT



PATENTED NO-LEAK SEALED
ELECTRICAL BOX





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