



A POWERFUL LINEUP OF INNOVATION AND TECHNOLOGY





INTRODUCING **MIDDLEBY**

Headquartered in the United States with over 10,000 employees worldwide in 100 countries, **Middleby**, a publicly traded corporation, is a worldwide manufacturer of commercial kitchen equipment, residential appliances and systems for industrial food processing, packaging, and baking.

With more than 100 brands between the three business segments, Middleby designs, manufactures, markets, and services its products worldwide. 1 out of 3 restaurants in the world use our equipment! If you ate or drank something today, there's a good chance Middleby played a role in the preparation.

**30,000 installations
in over 100 countries**

**Over 500 years of
technical food processing
expertise with top tier
service and support**

**Powerful brands under
one umbrella, serving
the global market with
proven and state-of-the-
art solutions**

THIS IS INNOVATION. THIS IS MIDDLEBY.



ONE PARTNER, **SO MANY SOLUTIONS.**

At Middleby we develop the most advanced solutions for commercial, industrial and residential foodservice. Whether our customers are feeding their families or thousands of patrons, we are proud to be their trusted partner.

Our industry-leading innovation coupled with our dedicated, knowledgeable employee base allows us to best serve our customers around the world.

For a complete list of Middleby brands see:
www.middleby.com



FOOD PROCESSING

Middleby Food Processing Group partners with industrial protein and bakery processors, providing the most advanced operations solutions.

FOODSERVICE AND BEVERAGE

Middleby is the worldwide leader in commercial kitchens, offering the most advanced innovations for cooking and warming, refrigeration, and beverage solutions for top restaurant and institutional customers.

RESIDENTIAL

Middleby is the leader in the ultra-premium, residential kitchen appliance market providing the most recognizable and technologically-advanced consumer brands in use globally.



OUR BAKERY BRANDS



High Capacity Serpentine
Solution for all Bakery
Categories



Proof | Bake | Cool



Automated Bakery Equipment
& Commercial Bag Closures



Professional Mixers



German Bakery Technology



High-Capacity Bread and
Bun Conveyored Systems



Bread Dough
Make-up Machinery



Liquid Packaging Systems



Complete Biscuit and
Cracker Solutions



Professional Baking Machinery

OUR PROTEIN BRANDS



Cook | Chill | Smoke
Roast | Pasteurize



Automated Cook
Chill | Ham | Sous Vide



Transport | Grind | Mix
Brine | Massage | Emulsify



Modified Atmosphere
Packaging



Press | Massage | Tenderize
Defrost | Separate | Mould



Align | Convey | Autoload
Robotics



Mature | Dry | Smoke
Cook | Roast | Pasteurize
Chill | Defrost



Industrial Filtration



Portion | Form
Batter | Bread | Fry



Premier Vacuum & MAP
Thermoforming Solutions



Slicing Systems
Bacon | Meat | Cheese



AGV Robot
Loading | Unloading

OUR PROTEIN AND BAKERY BRANDS



Washing | Sanitizing | Drying



Fill | Deposit | Portion | Pump



Automated Logistic
Solutions



Automated Guided
Vehicles



Interleavers | Stackers
Interleaving Materials



Freeze | Chill
Steam | Proof

MEET OUR PROTEIN BRANDS

PROCESSING & PREPARATION

COZZINI

Transport | Grind | Mix
Brine | Massage | Emulsify

DANFO TECH

Press | Massage | Tenderize
Defrost | Separate | Mould

HINDS-BOCK

Fill | Deposit | Portion

FILTRATION AUTOMATION

Industrial Filtration

MP EQUIPMENT

Portion | Form
Batter | Bread | Fry

THERMAL PROCESSING

ALKAR

Cook | Chill | Smoke
Roast | Pasteurize

Armor Inox

Automated Cook
Chill | Ham | Sous Vide

maurer-atmos

Mature | Dry | Smoke
Cook | Roast | Pasteurize
Chill | Defrost

scaniaG

Freeze | Chill
Steam | Proof



SLICING, LOADING & PACKAGING

CV-TEK

Modified Atmosphere
Packaging

DRAKE

Align | Convey | Autoload
Robotics

pacproinc

Interleavers | Stackers
Interleaving Materials

RAPIDVISION PAK

Premier Vacuum & MAP
Thermoforming Solutions

THURNE

Slicing Systems
Bacon | Meat | Cheese

FACILITY AUTOMATION & EQUIPMENT SANITATION

With the implementation of on-site automation, the future of facilities, for both bakery and protein is rapidly changing and becoming more user-friendly and cost-effective.

COLUSSI ERMES

Washing | Sanitizing | Drying

Key-Log

Automated Logistic
Solutions

PROXAUT

Automated Guided Vehicles

VEMAC

AGV Robot
Loading | Unloading



TECHNOLOGY IMPACTING AN INDUSTRY

Middleby offers its customers and prospects a one-stop destination for turnkey equipment solutions.

While our equipment is powerful enough to meet the demands of the highest volume processors, we also offer scaled down systems as well as single machine solutions.

With decades of deep industry and technical expertise, we bring together food processing insight, best practices, breakthrough / disruptive equipment solutions and systems innovation. We consistently provide on-time deliveries, smooth startups, and optimized processes, all of which ultimately equate to very favorable returns on investment.

Put Middleby know-how and innovation to work for you:

- ▶ **Lower Cost** of Ownership
- ▶ **Minimized** Operating Costs
- ▶ **Maximized** Capacity Utilization
- ▶ **Reduced** Energy Consumption
- ▶ **Efficient** Waste Minimization

LET'S CUT TO THE CHASE



Middleby develops industrial scale, industry-leading protein solutions for processing, slicing, and packaging. The Middleby Corporation food processing brands manufacture high-volume equipment as well as scaled down systems that meet all your food processing needs.

ALTERNATIVE PROTEIN

From **2,000 lbs/hr**
to **12,000 lbs/hr and up**

SALAMI & DRY CURE

From **5,000 lbs/hr**
to **10,000 lbs/hr**

BACON

From **1,600 lbs/hr**
to **10,000 lbs/hr**

POULTRY

From **6,000 lbs/hr**
to **18,000 lbs/hr**

PHILLY STEAK

Up to **30,000 lbs.** processed / shift

CASE READY

From **1,000 lbs/hr**
to **4,000 lbs/hr**

SAUSAGE & HOT DOG

From **3,000 lbs/hr**
to **25,000 lbs/hr**

DELI & LUNCH MEAT

From **2,000 lbs/hr**
to **16,000 lbs/hr**

SOUS VIDE

From **200 lbs/hr**
to **20,000 lbs/hr**

PET FOOD

From **3,000 lbs/hr**
to **12,000 lbs/hr and up**

A SEAMLESS COMBINATION OF BRANDS FOR ONE FULL-LINE BREAKTHROUGH SOLUTION

CENTRALIZED PROJECT EXECUTION

The intelligent integration of equipment by experienced project engineers results in smooth production processes.

DELIVERED BY EXPERT PEOPLE

Food Technologists with decades of industry knowledge provide food processing insight.



**ACCELERATE PROCESSING
IMPROVE THROUGHPUT**



**INCREASE YIELDS
RAISE PROFITABILITY**



**EXPAND CAPACITY
MORE PRODUCTION, LESS PEOPLE**



**REDUCE COSTS
OPERATING AND CAPITAL**



**MAXIMIZE SANITATION
SAFER DESIGN, EASIER CLEANING**



**MAINTAIN CONSISTENCY
HIGHER QUALITY**



**PRACTICE SUSTAINABILITY
TAKE ENVIRONMENTAL
RESPONSIBILITY**



MIDDLEBY,
WHERE ALL
INNOVATION
LINES UP.

TOP OF THE LINE

ALTERNATIVE PROTEIN



- › Multi-dimensional, versatile forming
- › Compact footprint



**PLANTING SEEDS OF INNOVATION:
CULTIVATING TOMORROW'S
SOLUTIONS TODAY!**

ALKAR Cook / Chill / Smoke
Roast / Pasteurize
Armor Inox Automated Cook
Chill / Ham / Sous Vide
COLUSSI ERMES Washing / Sanitizing / Drying
COZZINI Transport / Grind / Mix
Brine / Massage / Emulsify
CV-TEK Modified Atmosphere
Packaging
MEQUIPMENT Portion / Form
Batter / Bread / Fry
pacproinc Interleavers / Stackers
Interleaving Materials
RAPIDVISION PAK Premier Vacuum & MAP
Thermoforming Solutions
scaniG Freeze / Chill / Steam / Proof

TOP OF THE LINE

SALAMI & DRY CURE

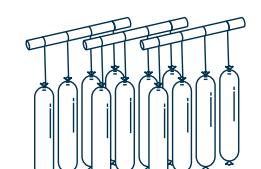


- › Seamlessly integrated processing with robotic product transfers
- › Highest yield / capacity, quality, consistency - less weight loss



UP TO
30%
ACCELERATE

Faster, fully monitored process. Save up to 30% in processing time.



INCREASE CAPACITY
75 - 250% space savings.
More product in the same footprint.

ALKAR Cook / Chill / Smoke
Roast / Pasteurize
COLUSSI ERMES Washing / Sanitizing / Drying
COZZINI Transport / Grind / Mix
Brine / Massage / Emulsify
DANFO TECH Press / Massage / Tenderize
Defrost / Separate / Mould
maurer-atmos Mature / Dry / Smoke
Cook / Roast / Pasteurize
Chill / Defrost
RAPIDVISION PAK Premier Vacuum & MAP
Thermoforming Solutions
THURNE Slicing Systems
Bacon / Meat / Cheese
VEMAC AGV Robot
Loading / Unloading

TOP OF THE LINE

SAUSAGE & HOT DOG



LESS ENERGY

Reduce energy consumption by 67%!

- › Customizable automated process for each product and facility size
- › Highest yield / capacity
- › Fastest cooking process - smoke, cook, cool, & chill

- › Consistent quality: color, flavor & texture
- › Advanced sanitary design for pasteurization, seal, label, and package



ALKAR	Cook / Chill / Smoke Roast / Pasteurize
Armor Inox	Automated Cook Chill / Ham / Sous Vide
COLUSSI ERMES	Washing / Sanitizing / Drying
COZZINI	Transport / Grind / Mix Brine / Massage / Emulsify
CV-TEK	Modified Atmosphere Packaging
DRAKE	Align / Convey / Autoload Robotics
maurer-atmos	Mature / Dry / Smoke Cook / Roast / Pasteurize Chill / Defrost
RAPIDVISION PAK SEALED FUTURE	Premier Vacuum & MAP Thermoforming Solutions

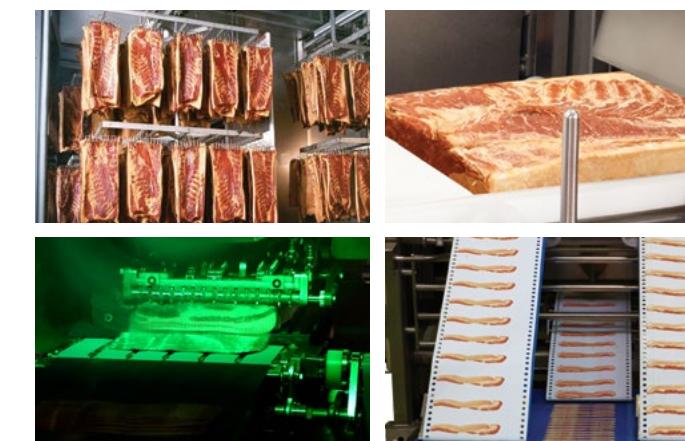
TOP OF THE LINE

BACON



SAVE WATER

- › Reduce waste water by more than 50%!
- › Save 5 million gallons per year!



- › Seamlessly integrated processing with robotic product transfers
- › Most efficient use of floor space
- › Increase yield, quality & consistency
- › High capacity: 800 bellies per hour
- › Decrease human contact & operator fatigue
- › Possible for a wide range of product applications

ALKAR	Cook / Chill / Smoke Roast / Pasteurize	pacproinc	Interleavers / Stackers Interleaving Materials
COLUSSI ERMES	Washing / Sanitizing / Drying	RAPIDVISION PAK SEALED FUTURE	Premier Vacuum & MAP Thermoforming Solutions
COZZINI	Transport / Grind / Mix Brine / Massage / Emulsify	scanica	Freeze / Chill / Steam / Proof
DANFO TECH	Press / Massage / Tenderize Defrost / Separate / Mould	THURNE	Slicing Systems Bacon / Meat / Cheese
maurer-atmos	Mature / Dry / Smoke Cook / Roast / Pasteurize Chill / Defrost	VEMAC	AGV Robot / Loading / Unloading Combing / Decombing
MP EQUIPMENT	Portion / Form / Batter / Bread / Fry		

TOP OF THE LINE

DELI & LUNCH MEAT



ALKAR

Cook / Chill / Smoke
Roast / Pasteurize

Armor Inox

Automated Cook
Chill / Ham / Sous Vide

COLUSSI ERMES

Washing / Sanitizing / Drying
Transport / Grind / Mix
Brine / Massage / Emulsify

COZZINI

Press / Massage / Tenderize
Defrost / Separate / Mould

DANFO TECH

Mature / Dry / Smoke
Cook / Roast / Pasteurize
Chill / Defrost

maurer-atmos

MEQUIPMENT

pacpro inc

RAPIDVISION PAK
SEALED FUTURE

THURNE

VEMAC

Portion / Form
Batter / Bread / Fry

Interleavers / Stackers
Interleaving Materials

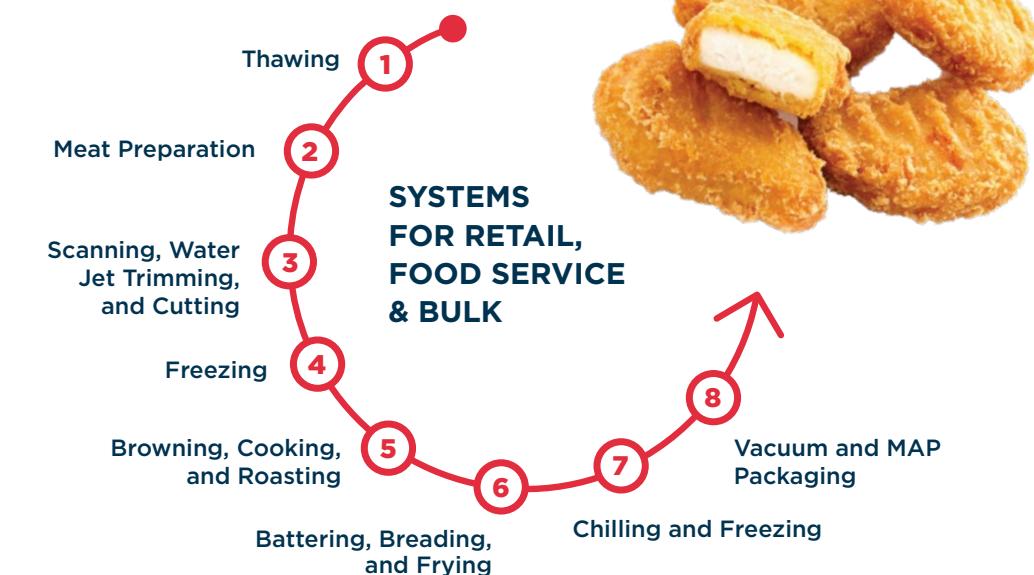
Premier Vacuum & MAP
Thermoforming Solutions

Slicing Systems
Bacon / Meat / Cheese

AGV Robot
Loading / Unloading

TOP OF THE LINE

POULTRY



- › Multi-dimensional, versatile forming
- › Highest yield / capacity
- › Increase yield, quality & consistency
- › Consistent quality: color, flavor & texture



ALKAR

Cook / Chill / Smoke
Roast / Pasteurize

COLUSSI ERMES

Washing / Sanitizing / Drying

CV TEK

Modified Atmosphere
Packaging

DANFO TECH

Press / Massage / Tenderize
Defrost / Separate / Mould

maurer-atmos

Mature / Dry / Smoke
Cook / Roast / Pasteurize
Chill / Defrost

FILTRATION AUTOMATION

Industrial Filtration

MEQUIPMENT

Portion / Form
Batter / Bread / Fry

RAPIDVISION PAK
SEALED FUTURE

Premier Vacuum & MAP
Thermoforming Solutions

SCANICG

Freeze / Chill / Steam / Proof

TOP OF THE LINE

PHILLY STEAK



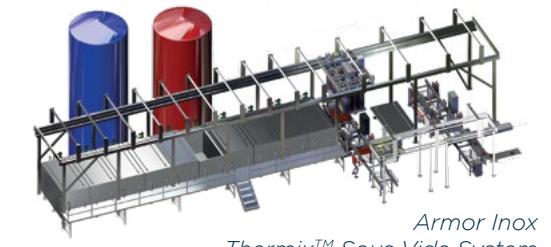
Automatic processing for optimal customer presentation, safety, sanitation, and efficiency.

- › Versatile and consistent slice thickness
- › Up to 1200 slices per minute
- › Labor & Space Savings
- › Low Maintenance & Easy to Clean
- › Stainless Steel Fanuc food-grade washdown delta robotic loading
- › Up to 30,000 lbs. processed / shift



TOP OF THE LINE

SOUS-VIDE



A full immersion cooking and chilling system allowing cooking at low and precise temperatures, designed for your product and conditions.

- › Customizable automated process for each product and facility size
- › Highest yield / capacity
- › Advanced sanitary design for pasteurization, seal, label, and package
- › Consistent quality: color, flavor & texture
- › Compact footprint

ALKAR Cook / Chill / Smoke
Roast / Pasteurize

Armor Inox Automated Cook
Chill / Ham / Sous Vide

E COLUSSI ERMES Washing / Sanitizing / Drying

COZZINI Transport / Grind / Mix
Brine / Massage / Emulsify

DANFO TECH Press / Massage / Tenderize
Defrost / Separate / Mould

HINDS-BOCK Fill / Deposit / Portion

RAPIDVISION PAK Premier Vacuum & MAP
Thermoforming Solutions

scaniaG Freeze / Chill / Steam / Proof

- COZZINI** Transport / Grind / Mix
Brine / Massage / Emulsify
- CV-TEK** Modified Atmosphere
Packaging
- DANFO TECH** Press / Massage / Tenderize
Defrost / Separate / Mould
- DRAKE** Align / Convey / Autoload / Robotics
- Key-Log** Automated Logistic Solutions
- pacproinc** Slicing / Interleavers / Stackers
Interleaving Materials
- PROXAUT** Automated Guided Vehicles
- RAPIDVISION PAK** Premier Vacuum & MAP
Thermoforming Solutions
- scaniaG** Freeze / Chill / Steam / Proof
- VEMAC** AGV Robot
Loading / Unloading

TOP OF THE LINE

CASE READY



- › Best portioning yield with fixed weight packs
- › Consistent product quality at high capacity & yield
- › Compact footprint



TOP OF THE LINE

PET FOOD

Bringing the highest quality food production to the pet industry

**Material Handling / Grinding / Mixing & Blending / Size Reduction
Molding & Shaping / Drying / Freezing / High Efficiency Baking
Packaging / Facility Automation / Equipment Sanitation**



CV-TEK Modified Atmosphere Packaging

COLUSSI ERMES Washing / Sanitizing / Drying

DANFOOTEC Press / Massage / Tenderize
Defrost / Separate / Mould

SCANICG Freeze / Chill
Steam / Proof

THURNE Slicing Systems
Bacon / Meat / Cheese

ALKAR

Cook / Chill / Smoke
Roast / Pasteurize

CV-TEK

Modified Atmosphere
Packaging

VEMAC

AGV Robot
Loading / Unloading

AUTO-BAKE SERPENTINE

Muffin, Cake and Bread
Baking Systems

maurer-atmos

Mature / Dry / Smoke
Cook / Roast / Pasteurize
Chill / Defrost

PROXAUT

Automated Guided
Vehicles

Baker THERMAL SOLUTIONS

Proof / Bake / Cool

COLUSSI ERMES

Washing / Sanitizing
Drying

COZZINI

Transport / Grind
Mix / Emulsify / Pump

SCANICG

Freeze / Chill
Steam / Proof

SPOONER VICARS

Complete Biscuit &
Cracker Solutions



PROCESSING & PREPARATION

COZZINI

DANFO^{TECH}

HINDS-BOCK

FILTRATION
AUTOMATION

MP EQUIPMENT

COZZINI

**Emulsion / Grinding / Blending / Massaging /
Slicing / Bulk / Material Handling /
SUSPENTEC® / FastHam®**



With the most comprehensive range of grinding, blending, emulsion, material handling and slicing equipment, Cozzini sets the standard for quality and many years of reliable productivity.

Cozzini's decades of food industry and technical expertise bring the kind of insight and systems know-how to build innovation into production processes and your final products. While their equipment is powerful enough to meet the demands of the highest

volume processors, Cozzini also offers scaled-down systems and single machine solutions for smaller producers who demand the same quality and consistency in their products.

Cozzini's experienced product specialists and food scientists can help you develop new products or refine your existing ones. Their knowledgeable service technicians will keep your systems running perfectly for many years to come.



Emulsion / Reduction Systems

SUSPENTEC Systems

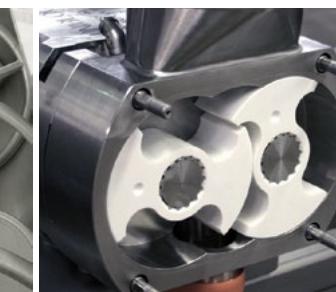
Mixing & Massaging FastHam Systems

Grinding Equipment



CPF-7 Quadcut

- › 1 to 4 sets of plates & knives for coarse, fine or ultra-fine emulsions possible
- › Wide variety of plate and knife options



Versamill 5

- › 3.5 metric ton (8000 lbs/hr) output rate for lower volume processes
- › 125 mm (5") cutting head holds 2 - 4 knife sets
- › Gravity or force fed with a pump

The **SUSPENTEC® PROCESS** injects trimmings reduced to micron-sized particles in a brine suspension to enhance flavors, improve textures and increase yields in whole muscle beef, ham, turkey, chicken, pork, or fish.

Cozzini's **CONTINUOUS SAUSAGE PRODUCTION LINES** are sized to fit your needs. Centered around a PrimeCut™ emulsion system, the system combines grinding, blending, emulsion and stuffing operations into a single, efficient process.

Our **FASTHAM® CONTINUOUS HAM PROCESS** can reduce your massaging time by 50% or more and reduce or completely eliminate curing hold-time to facilitate continuous production with program-driven massaging cycles.





+45 9816 5500
dftsales@danfotech.com
www.danfotech.com

Meat Presses / Defrost Systems / Ham Process Systems / Press Towers



Danfotech produces, installs and services a wide range of machinery & specialized equipment for the food processing industry: bacon presses, defrosting lines, massaging tumblers, ham production lines, tenderizers and loading / unloading systems built around cook tanks or ovens.

BACON PRESSES

- › Optimize slicing yields by maintaining uniformity of pressed products
- › Capable of pressing from 8 to 14 units per minute
- › Ideal to temper product from crust frozen to core temps between 23F and 16F (-5C to -9C)
- › Die set sizes and shapes based on customer requirements
- › Fully automated loading and unloading option for all presses



TUMBLER

Massaging is one of the most important processes in the preparation of processed meat products to attain the ideal color, appearance, and absorption of additives. Danfotech tumbler massagers are designed to ensure efficient, reliable, economical, and flexible production. The massage drum is intended for continuous operation with 95% vacuum. Danfotech offers tumblers in a wide range of sizes from 800 liters (28 cu. ft.) up to 12,000 liters (423.8 cu. ft.)



Danfotech is proud to introduce its new line of **Shapetec™ Servo Presses**, including the Type 10S and 14S, the only 4-direction (4D) servo presses in the world.

DEFROST SYSTEMS

The automated thawing system involves dividing frozen meat blocks and transporting them to a temperature controlled tumbler unit. Frozen blocks can be separated into single whole muscles without damaging the fibers or membranes.



- › Preserve the quality of the meat
- › No dripping or protein loss during thawing
- › Shorter processing times mean lower risk of introducing bacterial contamination
- › Transport systems can load a row of tumbler units with product to be thawed
- › Transfer thawed product directly to injection and tenderizing, tumbling or stuffing operations

**Type 14 S
Servo Flex 4D
Meat and Bacon Press**



**Type 10 S
Servo Flex 4D
Meat and Bacon Press**



**Type 8 S
Servo Flex 3D
Meat and Bacon Press**





+1 877 292-5715
sales.inquiries@hinds-bock.com
www.hinds-bock.com



Industrial food production equipment for depositing, portioning, filling and pumping everything from sauces and chunky fillings to deli salads and ready meals.



- › Single and Multi-Piston Depositors and Servo Fillers
- › Food Grade Transfer Pumps
- › Automated Production Lines:
 - / Tray filling / ready meal systems
 - / Bucket, pail and container filling and lidding
 - / Bottle and jar filling systems
 - / Horizontal packaging integrated systems
 - / Vertical packaging integrated systems
 - / Custom filling production systems



P-50 Transfer Pump



SP-1L Single Piston Depositor



6 Piston Servo Filler with Bridge & Hopper Agitator



ENGINEERING, SUPPORT AND PARTS

Hinds-Bock is proud to have an industry leading engineering department, support team, and state-of-the-art parts department.

- › Fully staffed engineering team that can design custom equipment according to your specifications. Hinds-Bock can also incorporate special modifications to their standard machines.
- › Hinds-Bock parts department is extremely efficient, typically they can ship inventoried parts the same day of the order...and they still support machines that are over 40 years old.
- › In-house technicians provide on-site installation and turn-key support for custom designed equipment and systems.



▲
Servo Pump Filling Machines with servo driven diving and traveling spout bridges for high speed production of Ready Meals



▲
Up to 200 trays per minute — Bridge and multi-piston, filling system operates over tray sealer indexing conveyors



▲
Custom food application system for industrial high volume food production

FILTRATION AUTOMATION

**THE ONLY HOT OIL FILTRATION SYSTEM SPECIFICALLY BUILT FOR COMMERCIAL FRYERS.
SAFE HIGH-VOLUME, LOW-PRESSURE OPERATION**

Filtration Automation Micron Pro Hot

Oil Filtration Solution - Environmentally friendly and globally accepted. Filters run at 80gpm high volumes to meet the needs of today's production lines and remain at 10psi or less at any given time. We do not rely on any paper medias or powder intervention that ends up in our landfills. We use a durable stainless-steel screen that can last an extended amount of time and can be recycled with a value.

The system not only filters your oil but also polishes the oil upon return to the fryer, this extends the life of the oil and delivers a more consistent level of quality. Discoloration, odors, and polar solid counts are removed which lowers the rise of FFA that has been affecting the product. CO₂ output is also lowered with this polishing process which lessens the carbon footprint in today's environment. That's why Micron Pro has become the choice of Hot Oil Filtration across the globe, we lead the industry and deliver results that prove it.

+1 682 518-3530
sales@micronpro.com
www.micronpro.com

CRUMB RECOVERY SYSTEM

The fryer discharge is a key area for oil savings. We now offer the ability to recover all the oil and remove the crumbs from the discharge of the fryer. This is all done automatically without the need for any operator intervention. Increasing safety and decreasing workload for your team!

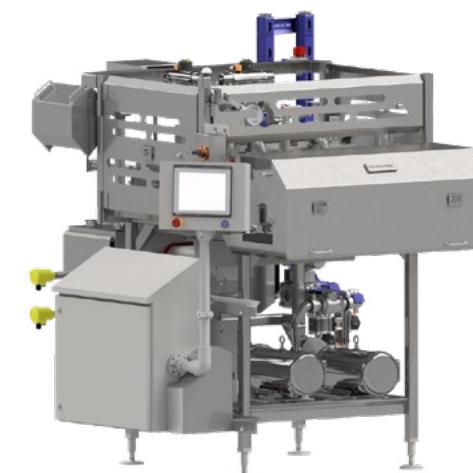
- › Fryer discharge oil recovery
- › No paper media used
- › One point collection for all crumbs
- › Dramatically increase oil savings
- › Automatic operation
- › Fast ROI
- › No more wasted oil!



SELF CLEANING FILTRATION SYSTEMS

Able to handle fryers running 18,000 lbs of breaded and battered products with no need to shut down and drain dirty oil during your production process. Another benefit of removing large amounts of debris quickly is keeping your heat exchanger fins clean. Dirty fins are a common problem with many continuous frying operations. This can lead to poor energy efficiency from your fryer, and also cold spots in your heating zones. Cold Spots in your fryer can change the consistency of your products and can be hard to detect. To avoid these common issues please contact us today.

- › Intelligent self-monitoring system
- › Automatic cleaning cycles
- › Remote access via Ethernet with 24 hour customer support





+1 770 503-7605
sales@mpequipment.com
www.mpequipment.com

**SpotOn™ Further Processing / Formers /
Frying Systems / Breaders / VCS Batter Mixers /
Portioning Equipment**



With a 50-year commitment to the further processing industry, processors depend on MP Equipment to bring them superior engineering, innovation and reliability.

MP Equipment continually provides efficient solutions to your further processing challenges.

Trust the entire line of **MPADVANTAGE™** field-proven equipment: portioning, marination, forming, batter / breading, frying and more to provide solid solutions to your unique further processing needs. Designed and built for life in the food production industry, MP Equipment features:

- Energy Efficiency
- Hygienic Design
- Rugged Stainless Steel Construction
- Easy Touchscreen Controls
- Allen Bradley PLC/HMI, recipe driven
- Full Line Integrated Controls



^
**SpotOn™
MegaJet™ Water Jet Portioner**
Large variety of cuts available



MP Batter Applicator

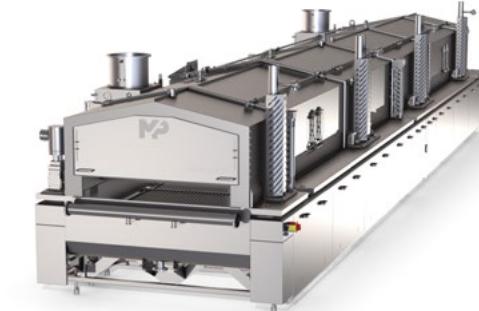
MP 115 Flat Breader



MP Quad Marination System



Triple Mode Flexible Breader
Patent Pending



MP ADVANTAGE™ Frying System
Patent Pending

FRYING SYSTEMS

MP ADVANTAGE™ Frying Systems feature a robust tank design that requires less maintenance and incorporate product transport systems that extend belt life. The HelyX™ heat exchanger maximizes thermal capacity for fryers up to 52" wide. The quick-change removable tempura belt cartridge allows flexibility for tempura and non-tempura products.

WATER CUTTING

Experience superior production and yields at the lowest cost of ownership with the industry's leading 8-cutter machine. The SpotOn™ MegaJet™ and MiniJet™ Water Cutters feature accurate, reliable and flexible water jet technology.

➤
**Patented SpotOn™
VCS Batter Mixer**



BATTER / BREADING

Accuracy is the heart of all MP coating systems, allowing processors to exceed their quality and yield specifications. Batter mixing and breading products include the patented Viscosity Controlled Batter Mixer, TCS Tempura Mixer, Batter Applicator, Flat Breader, Drum Breader and the revolutionary - both flat and barrel breaders in one.

FORMING / MULTI-FLOW®

MP formers provide unmatched quality and dependability. Featuring the optional patented Multi-Flow® system, models include the MP ADVANTAGE™ Servo Elite and Servo Simple. Heavy-duty stainless-steel frames are guaranteed for life. A wide range of tooling solutions are available.



➤
**MP800 Servo
Simple Former
(All Servo)**



THERMAL PROCESSING

ALKAR

Armor
Inox

maurer-atmos

scanico



Continuous Systems / Batch Ovens (Standard, High Temperature, Fermentation) / **Chillers** (Air, Brine, Glycol) / **Pasteurization / Drying Rooms / Controls / Smoke Generators / Renovations**



Since ALKAR's beginning in the 1950s, installations have grown to nearly 400 continuous systems and 6,000 batch units.

Unwavering dedication to customer support, engineering and manufacture of custom thermal processing solutions paved ALKAR's way to its present position as industry leader in the meat/protein thermal processing segment.



+1 608 592-3211
sales@alkar.com
www.alkar.com

HIGH PERFORMANCE BATCH OVEN & CHILLING SYSTEMS

ALKAR batch systems offer a full range of configurations and capabilities from 500 to 50,000 lbs. capacity, direct or indirect gas heat, steam coil heating, hot oil, high temperature (500° F / 260° C). Choose between high performance air or brine (recirculated liquid) chilling.

- › Rapid Air Chill Systems
- › Drying and Fermentation Rooms
- › BBQ Ovens

CONTROLS

ALKAR'S process control systems allow data collection, product tracking, and provide you with all the information necessary to comply with regulatory requirements and efficiently operate your facility. ALKAR's wireless temperature probes also track internal and environmental temperatures throughout the entire cooking and chilling process.



The only linear industrial oven in the world with the combination of microwave, convection hot air heating, and humidity control.

Reduce Cook Times up to 60%! Increase existing line capacities. Optimize product quality while increasing operational throughput with minimal maintenance. All stainless steel process belt.



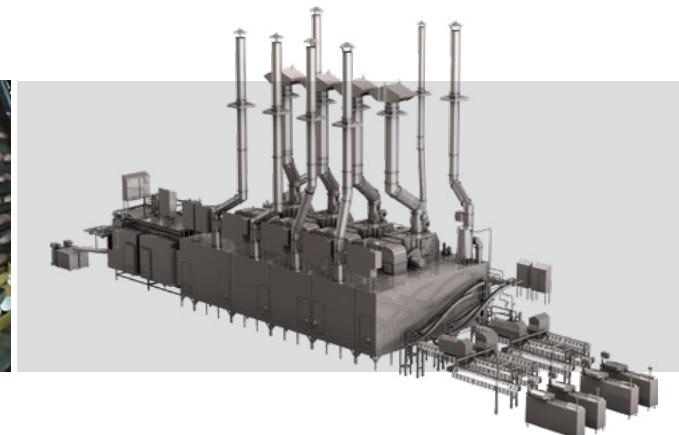
RENOVATION & AUXILIARY EQUIPMENT

ALKAR provides renovations and updates to even its earliest systems. Many systems are operating beyond 40 years. ALKAR provides a wide range of ancillary equipment:

- › Material Handling: trucks, trees, cages, racks
- › Conveyors: chain, belts, overhead rail.
- › Smoke Generators
- › Replacement Parts

PASTEURIZATION

ALKAR provides continuous and batch pasteurization systems for surface (3-5 mm depth) or deep (core) product applications. Post-pasteurization chilling units reduce temperatures for storage.





**Thermix™ Systems / Cooking and Chilling /
Product Molds / Logi-Flex™ Systems /
Camatix Pasteurization Systems
Kitchenix / Original Sous Vide Water Cooking &
Chilling for Restaurants and Caterers**



The industry has recognized Armor Inox as the worldwide proven solution for continuous, fully automated thermal processing applications of cooked meat, both deli and slicing logs, and ready meals. High output shaping and cooking/chilling technology delivers dependable, consistent flow of products at the lowest operation costs.

SHAPE, COOK, & CHILL

The Thermix™ system is a fully integrated solution to automatically shape, cook, chill and move cooked meat within the processing system. With the Armor Inox system, processors can produce from 20 to 200 metric tons per day with as little as 2

employees. The Thermix™ system combines high output with production flexibility, optimum production performances with high productivity, low operation costs with large savings of energy, and food safety with complete product traceability.



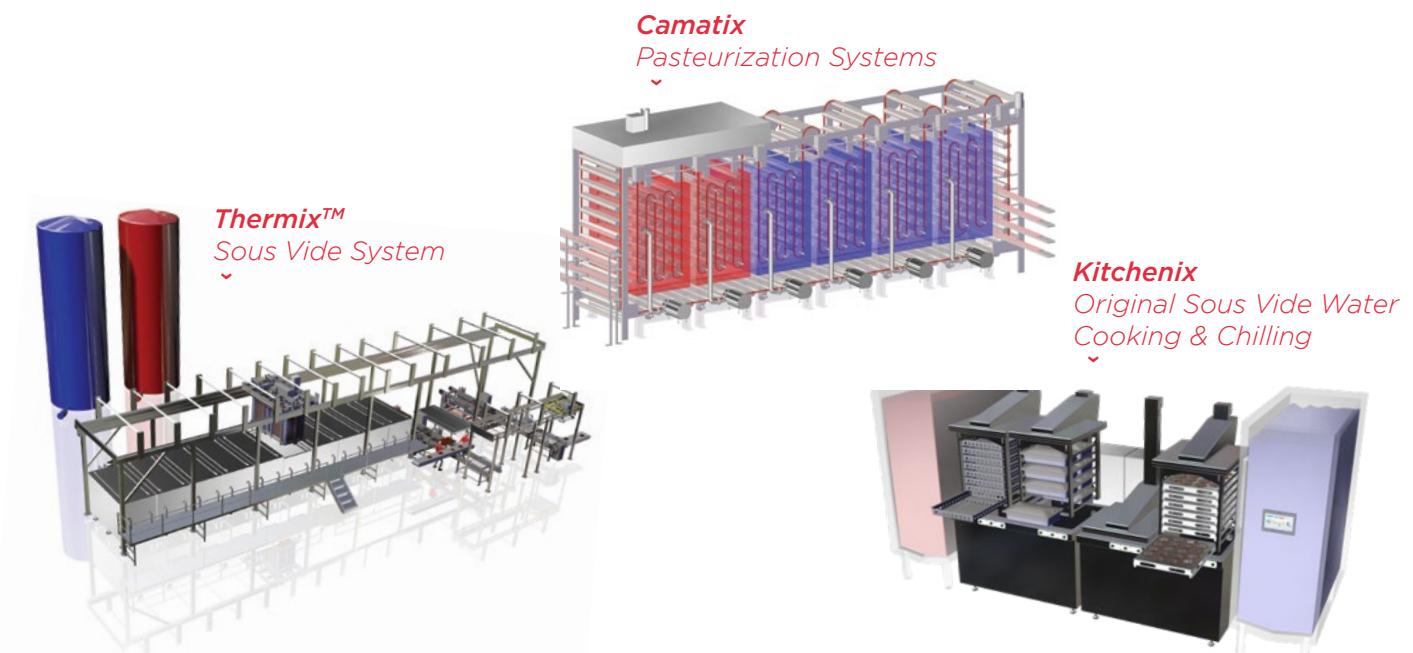
+33 (0)297 22 62 63
contact@armorinox.com
www.armorinox.com

PROCESS CONTROL WITH PRODUCT CONSISTENCY

The Thermix™ system significantly improves process control and product consistency while dramatically reducing labor cost and energy consumption.

The modular Thermix™ processing system allows total control of the product cook, cool and chill process cycles for consistent repeated results, ensuring the highest cooking yields.

The Multimolds™ technology shapes and molds product with consistent accurate dimensions for



THE ORIGINAL SOUS VIDE COOKING SYSTEM BY ARMOR INOX

A Thermix™ Sous Vide System covers a large range of possibilities for RTE foods: ready meals, cooked meat, beef, pork, chicken, fish/seafood, eggs and vegetable that can be differentiated through various processes before being packaged. Fresh, safe and natural organic products of superior quality, convenient and proven

shelf life at the lowest operating cost. The automated system works continuously at a steady pace of 1,000 to 10,000 pounds / hour with various levels of handling automation delivering constant flow.

Armor Inox has become the most recognized name in "sous vide" automated cooking and chilling

optimum product shapes, providing superior finished products and the highest slicing yields.

The Logi-Flex™ system provides a large variety of handling solutions, from molding to finished product unloading to slicers, racks or pallets...

Armor Inox offers proven solutions backed by a worldwide reputation for performance, reliability and cost effectiveness.

systems. More than 160 Thermix™ systems are in operation worldwide, with proven reliability for over 35 years. The Thermix™ System's streamlined design results in exceptionally low maintenance costs.



+49 7531 9422-0
sales@maurer-atmos.de
www.maurer-atmos.com

Fermenting / Cold-Smoking / Maturing / Drying Rooms (optionally fully automated) / **Thawing / Defrosting Rooms** (optionally fully automated) / **Hot Smoking / Cooking & Cooling / Baking & Roasting Systems in batch and semi-continuous design** (optionally fully automated) / **Smoke Generators / Related Add-Ons**



Maurer-Atmos is known for high-quality smoke and production systems and is a leading provider in the thermal processing of meat, fish and poultry products.

Maurer-Atmos is the global technology partner in the field of thermal product processing and has over

70.000 installations worldwide. Maurer-Atmos stands for efficient production systems and innovative engineering solutions. Their headquarters and production facility - Made in Germany - are located in Reichenau on Lake Constance. Across the globe, they are represented by business partners in more than 90 countries.

BATCH

- › Wide variety of batch systems to satisfy every thermal processing requirement
- › Exceptional air-flow
- › Size: 1-20 carts
- › Different kinds of smoke-generators
- › Cooling and heating power variables adaptable to customer need

AUTOMATED BATCH SYSTEMS

- › Batch systems for higher racks (up to 3,25m high)
- › Automated load / unload of the racks (by Vemac)
- › Automated handling of the racks (AGV provided by Vemac)
- › Allows fully automated and flexible production of mixed products

SEMI-CONTINUOUS SYSTEMS

- › Inline production (combination of hot and cold batch-system)
- › 100% separating between low and high risk areas
- › Different transport systems as floor transport, overhead rail and rollers

SMOKE GENERATORS

- › Broad variety of external and internal smoke generators such as
 - › Sawdust
 - › Woodchip
 - › Friction
 - › Clean smoke



Increased Capacity	75-250%
Shorter Process Time	Up to 30%
Space Savings	75-250%
Improved Yield	1%
Taste and Quality	Improved

INDUSTRIAL ROOMS FOR FERMENTING, COLD-SMOKING, MATURING AND DRYING

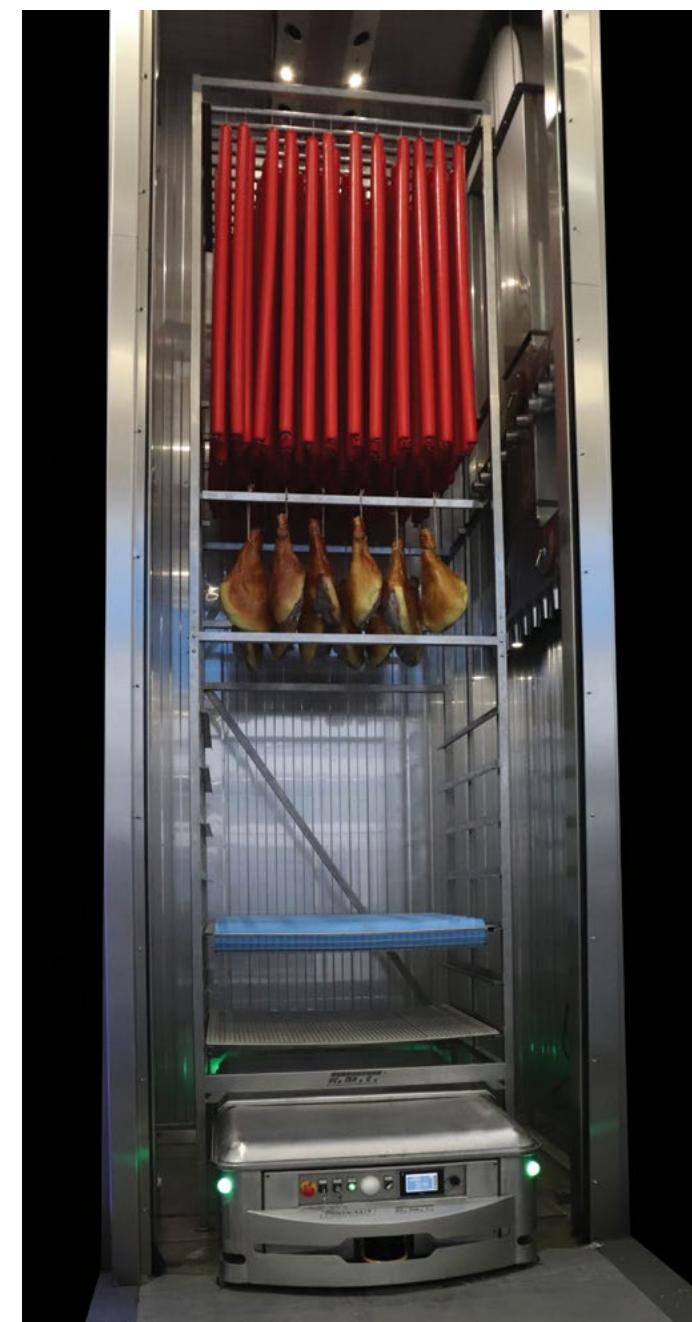
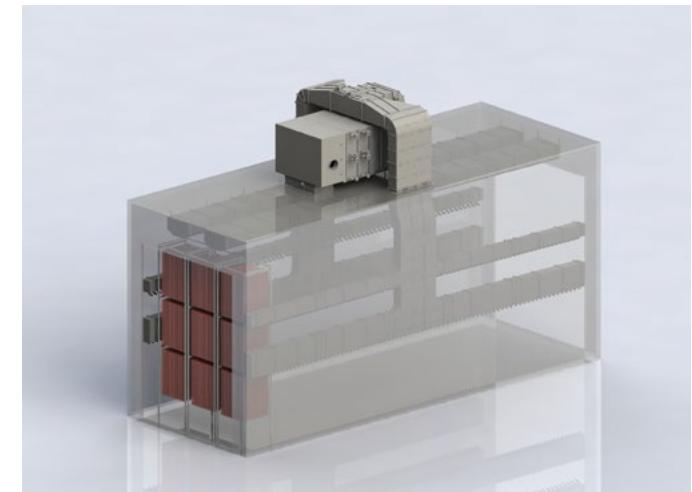
Continuously fast, consistent and reproducible processes:

This unique system is able to perform the maturing and drying process without any breaks. Due to the control of relative humidity and temperature for inlet and outlet air, it is possible to dry products without any variation.

With our industrial systems for fermenting, cold-smoking, accelerated maturing and drying, our customers can achieve greater capacity in the same footprint with 6-meter-high racks at a load capacity of up to 1800 kg of fresh meat per rack. The optimum utilization of floor space and room height results in a capacity increase of up to 250%.

This system saves up to 40% of the process time by regulating the relative humidity and temperature for the supply and exhaust air. So, it is possible to dry products without fluctuations. The system is able to move the air continuously (100% of the time), without rest periods.

This in turn means a complete uniformity of the products that is about a 1% deviation in the entire processing room. Our customers produce reproducible goods without surface crust.



scanico

+45 96 20 30 50
scanico@scanico.com
www.scanico.com

Spiral Systems / Freezers / Coolers / Steamers and Pasteurizers



Scanico offers continuous spiral system for cooking, smoking and cooling bacon

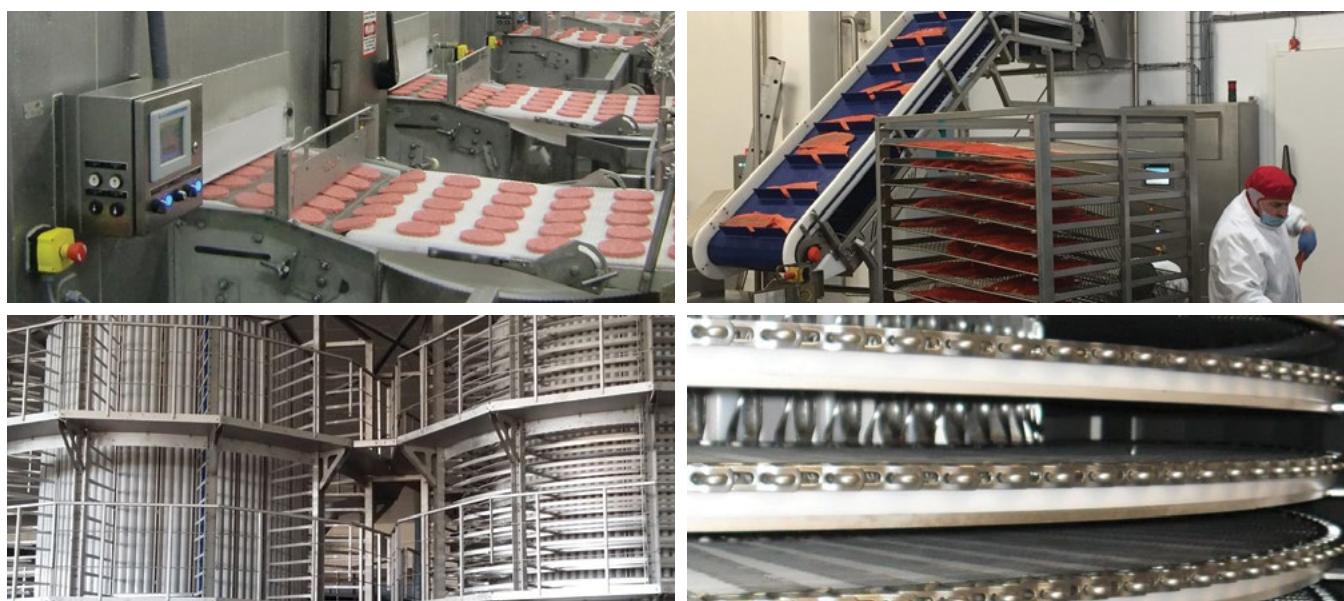
With more than 600 installations in 68 countries, Scanico offers freezing and cooling solutions for the protein industry in strong collaboration with our customers and other Middleby Brands. With every installation, our dedicated service personnel will ensure proper training from daily operation to routine maintenance backed by local Middleby service staff.

INNOVATIONS

- › Improved hygienic design with fully welded enclosure providing sanitary environment for efficient freezing
- › Continuous bacon smoking line: Cooking, Smoking and Cooling

KEY LINE BENEFITS

- › Smoking with traditional smoke and/or liquid smoke
- › Optimized yield with controlled temperature humidity in all zones (back to "green weight")
- › Continuous in-line production with homogeneous product quality
- › Reduction in manpower due to less handling compared to combing/decombing
- › Smaller foot print
- › Option for direct pressing after chill down process
- › Option for heat recovery system
- › Total Middleby solution with trimming, smoking, cooling, pressing and slicing.



SPIRAL SYSTEMS

Scanico manufactures spiral systems for different purposes within the food processing industry including: IQF freezing, cooling, steaming and pasteurizing. The use of stainless steel and foodstuff approved plastic for all surfaces with direct product contact ensures the highest hygiene standard.

In addition to standard non-stacking spiral systems, Scanico can supply the unique Single Stacking Spiral with the following advantages:

- › Flexible configuration to suit space available
- › Less belt supports for better product hygiene
- › Unique drives system
- › One of the most compact spirals on the market
- › The most energy efficient spiral on the market
- › Capacity range up to 40 tiers



TWINIMP-IMPINGEMENT FREEZERS

With Scanico TwinImp impingement technology, the freezing and cooling times are equal to cryogenic methods at lower operating costs. The advantages is:

- › Increased yield
- › Super product quality and appearance
- › A higher degree of food safety
- › Lower production costs

The Scanico TwinImp impingement technology is ideal for crust freezing, freezing of thin products and for most cooling applications.



SLICING, LOADING & PACKAGING

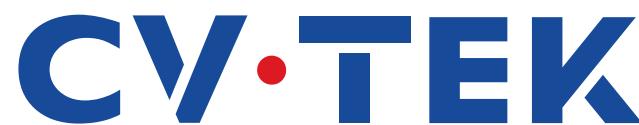
CV·TEK

DRAKE

pacproinc

RAPIDVISION PAK
SEALED FUTURE

THURNE



+1 847 741-3500
sales@cv-tek.com
www.cv-tek.com

Modified Atmosphere Packaging / Case Ready / Poultry, Cheese, and Produce / Bulk Packaging / Packaging Materials

CV-TEK machines are built from the ground up with superior engineering, better value, more features, increased selection of options, faster delivery, and excellent after-sales support. CV-TEK has many successful installations on six continents.

Multi-station units incorporate all the features customers have requested while providing the safest, most sanitary and well thought out Modified Atmosphere Packaging machine of its kind. Available in 2, 3, 4 or more stations allowing unprecedented flexibility with higher

packaging speeds. Each module includes its own infeed as well as outfeed belt. Start with 2 or 3 stations and easily add additional modules in minutes as they interface and communicate by simply connecting a water-tight cable. Custom options include high and low oxygen systems and PLC programs.

The packaging solutions you need for IQF, Cheese, Meat, Nuts, Produce, Poultry, and Seafood as well as Resins, Powders and other Industrials.



HYGIENIC DESIGN

- › Clean-in-place system for internal cleaning
- › External wash down capability
- › Stainless steel snorkels

FLEXIBILITY

- › Specific option packages for meat, poultry, nuts, grains and industrial goods
- › PLC controls with flexibility of pre-set controls

CUSTOM OPTIONS

- › Custom PLC programs available
- › High and low Oxygen systems available



SEAL INTEGRITY

- › Digital temperature controls with hot bar system
- › Seal bar profiles minimize leakers
- › Standard bag stretchers eliminate wrinkles, ensuring leak-free seals

REPRODUCIBLE RESULTS

- › Heat seal manifold with positive vacuum gas seal design
- › PLC controls with digital vacuum and gas flush controls with low level gas alarm
- › Accumulator tank for accelerated speed of operation



Master PACKer X5

FreshVac® **MasterPACKerCenterSEAL®**

- › High Velocity "Quick Draw" Snorkel for superior vacuum and gas flush control
- › "On the Fly" changeover from High to Low O2
- › Exact system control through servo controlled motors and timing belts
- › Dual Gas Accumulator Tanks for High and Low O2
- › Dual impulse seal bar for perfect seals
- › Infeed conveyor with servo controlled linear actuators for fast and controlled feeding of trays
- › Patented ECO+ Film Management system designed to use Eco friendly 2 mil film
- › Capable of full integration with robotic pick and place systems



**MHSP
multi-line**



V-44





Cylindrical Product Alignment / Conveying / Inspection / 98% Fill Rate / Autoloading / Robotics

Globally leading the way in preparation for packaging with all configurations of systems that align, convey and load virtually any type of cylindrical product.

Drake high performance loaders are custom designed to your product specifications with an alignment unit and loading head. Maximum yields are achieved, while maintaining product integrity and aesthetics. Using patented

technology, product is indexed and aligned into individual buckets to convey to the loading head for placement into packaging. Touch screen controls allow the easy addition of new recipes and rapid adjustments to various areas of the loader to accommodate variety.

The minimization of human contact and easy cleaning procedures result in state-of-the-art-sanitation.



ALIGNMENT OPTIONS

Launcher

Quickly load fragile products such as cooked sausages and fresh cheese sticks. Unscrambler belts are used to sort and launch product. Models enable flexible film and box loading. Product diameter range - 14 to 32mm in 1, 2, 3, or 4 lanes.



CF-1200 >

Singulator

Fragile, curved natural casing product falls onto a narrow V-Belt to be arranged into flights on the conveyor. Primarily used to feed robotic loading heads. Product diameter range - 17 to 44mm in 1 or 2 lanes.

Collator

Frankfurters, sausages, vienna sausages, snack sticks, pickles, corn dogs, and other products fall into flights with the aid of stirrer paddles. Product diameter range - 12 to 32mm in 1 or 2 lanes.

Centrifugal Feeder

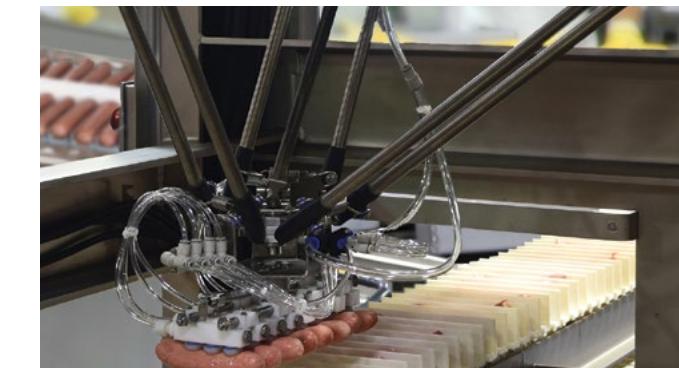
A variety of cylindrical product types are collected on a circular disc, mounted on an angle. This rotates at variable speeds to place product into flights. Product diameter range - 15 to 30mm in 1 lane per CF.

+1 540 569-4368
sales@drakeloader.com
www.drakeloader.com



Sani-Chain Collator with Lower, Easy Access Removable Flights

- › Complete disassembly
- › Extremely easy to clean
- › Effortless reach and operation



LOADING HEAD OPTIONS

Mechanical Placement

Versatile loading heads offer quick changeover times to precisely deliver product into a variety of pocket configurations. A CLX or SWP head mechanically places product into packaging dies.

Robotic Placement

Adjusts to the flow of product through one easy-to-operate control platform and touchscreen for the entire system. High speed end of arm tooling gently

picks and places into packaging equipment. Drake custom food grade robotics were developed to increase capacity and maneuverability while remaining easy to program and maintain.

FANUC Authorized Systems Integrator and Rockwell® Automation Machine Builder Partner.

Packaging Solutions for Packaging Machines, Trays, Boxes, Cans Jars, Bags.





+1 610 489-8601
sales@pacproinc.com
www.pacproinc.com

Interleaving / Stacking / Card Dispensing / Interleaving Materials



Pacproinc manufactures standard and customized automation solutions for dispensing paper or film substrates under, around, and between food portions for the purpose of portion control, separation, quick prep, hygienic handling, freeze release, and traceability.

Customers benefit from significant packaging savings, reduced labor, increased throughput and improved food safety while being able to offer their end users a value added

INTERLEAVING

High Volume 300 Series Interleavers cut paper from a roll and dispenses a sheet under portions at speeds in excess of 300 cycles per minute. Machine widths from 6" to 32" and capabilities from 1 to 7 lanes. These interleavers can be paired with over 6 different stacking modules depending on the application.

food service and retail packaging format for foodservice fresh bacon, retail fresh bacon, pre-cooked bacon, fresh and frozen hamburgers, beef analog burgers, sausage patties, grab n' go deli, deli sub-kits, Philly steak, and cheese.

Our focus on total automation means that accuracy is as important as speed and Pacproinc manufactures the highest speed, most accurate interleavers, card dispensers and stackers available anywhere.

Low Volume 100 Series Interleavers cut paper directly from a roll and introduce the sheet under portions at 100 cycles per minute. Machine widths from 152mm to 305mm and capable of single or dual lane. These interleavers can be paired with three different stacking modules depending on the application.

CARD DISPENSING

The **ProLeaver Card Dispenser** is the fastest, most versatile and most accurate card dispenser for bacon L-boards on the market.

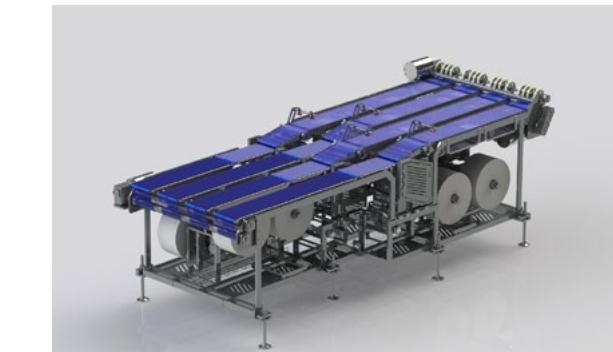
The patented design ensures better separation, fewer jams, and greater throughput as well as uptime. The system accuracy reduces the requirement for manual portion position correction "styling" downstream and enables the Pacproinc card folder and turner to further reduce retail bacon labor requirements.

Whether you need to run flap leading, flap trailing, no flap, clear cards, carrier boards or custom shapes the ProLeaver Card Dispenser will meet your needs.

STACKING

The **ProStax CBS4 Cooked Bacon Stacker** is a modular solution for automating the manual process of counting and stacking sheets of pre-cooked foodservice bacon.

The system is available in 2, 3, and 4 lane variants and employs a patented system to keep the bacon from sliding off of the paper regardless of cook level or how dry the product is. After stacking, the system combines all of the finished stacks into a single lane of flow for easy automatic loading into the packaging machine.



The **ProLeaver CBI4 Cooked Bacon Interleaver** is a modular paper dispensing system designed to accurately place the correct number of pre-cooked foodservice bacon slices on paper prior to stacking. This system can run programmable paper length at speeds up to 60 sheets/minute/ lane. Each lane runs independent of the others and all lanes can be equipped with a 2nd unwind to extend your run time.

RAPIDVISIONPAK

SEALED FUTURE

Premier Vacuum & MAP Thermoforming Solutions

**Vacuum and Modified Atmosphere Packaging /
Meat and Poultry Applications / Cheese Applications /
Disposable Sterile Medical Device Packaging /
Hardware and Consumer Goods Packaging**



Remarkable innovation paves the way to a rich mix of technological breakthroughs.

Over three decades RapidVisionPak has developed the most effective and efficient operation of horizontal form-fill-seal packaging equipment. Beginning in 1991, RapidVisionPak revolutionized packaging

PATENTED

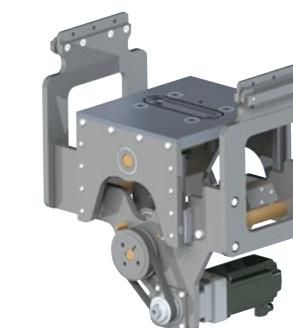
BELT/CLIP FILM ADVANCE

- No stretching as found with industry standard chain systems
- Ultra sanitary - no lubrication required or chain tracks to fill with debris
- No costly chain replacement



LIFT SYSTEMS

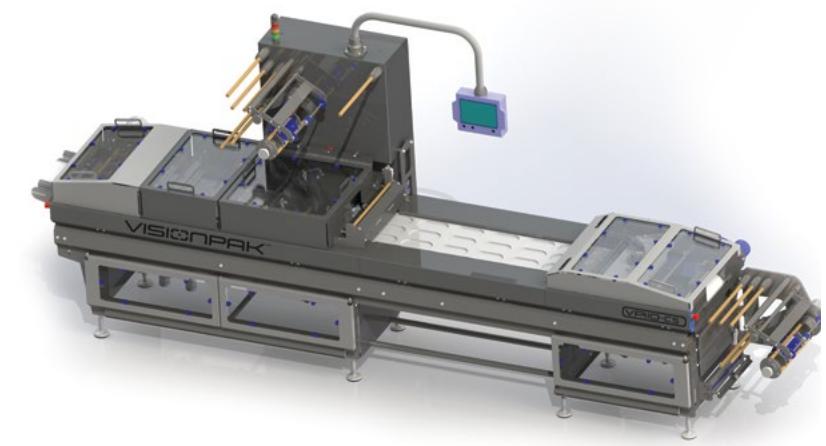
- Compact lift design maximizes performance in a small footprint
- Servo drive system with integrated electronic self-referencing and self-diagnostics
- Quick removal tooling for efficient product changeover



+1 847 741-3500
sales@rapidpak.com
www.rapidpak.com

INNOVATIVE PACKAGING SOLUTIONS FOR

- › **Meat and poultry applications**
Including whole muscle, processed and RTE portions. Retail and institutional. Vacuum and modified atmosphere
- › **Cheese applications**
Including bulk, sliced, shredded, string, unit of use portions and more. Vacuum and modified atmosphere
- › **Assorted food applications**
including pastas, ready-meals, institutional, etc.
- › **Sterile medical disposables**
- › **Hardware and consumer goods**



5-POINTS OF DIFFERENTIATION

- 1 Servo Motor Everything
- 2 Industry's lowest cost of ownership
- 3 Industry's leading sanitary design
- 4 Industry's fastest, easiest changeovers
- 5 Industry's leading ergonomic design with ease-of-use features throughout

PACKAGING SOLUTIONS

Innovative packaging equipment which incorporates technological solutions to food packaging industry challenges. Our customers benefit from forward thinking design concepts and equipment that meet application needs while deploying world class safety and sanitation standards.



RapidVisionPak features smooth and quiet operation and its design eliminates flat surfaces and hidden cavities.



UK +44 (0)1603 700755
US +1 773 478-9700
info@thurne.com
www.thurne.com



Thurne High Performance Retail Bacon Slicing Line

Case Ready Meat Portioning Systems / Bacon Slicing Systems / Cheese Slicing Systems / Processed Meat Slicing Systems

With more than 50 years of experience in the bacon, meat and cheese slicing industries, Thurne is renowned for innovative slicing and portioning systems that increase yield and productivity in processing plants around the world.

Thurne's fully integrated slicing and portioning systems include slicers and portioners, process weighers, card dispensers and conveyor

systems that are optimized to achieve maximum performance and presentation. Outstanding slice consistency and quality greatly enhances consumer appeal. High levels of first time on-weights enable reduced rework and lower manning levels.

Equipment conforms to stringent AMI and European safety standards, including CE certification.

In MEAT PORTIONING, Thurne's PortionX case ready meat portioner delivers high production volumes of clearly defined - pack ready - shingled groups and high-quality layout steaks.

Innovative product conditioning and scanning technology ensures consistent handling of variable product to optimize the performance for superb weight control.



The new generation of Thurne BACON SLICERS covers all common retail and food service pack formats, including carded, layout and stand-up drafts. A selection of predictive and vision options enables the slicers to deliver consistent performance, combining high throughput, maximum first time on weights, and low giveaway.

Thurne is revolutionizing PRECOOKED BACON SLICING with IBS4600, the world's first slicer to incorporate four independent feeds and blades with vision technology, offering unparalleled consistency in cooked slice presentation and quality.



In PROCESSED MEAT AND CHEESE SLICING, Polyslicer 1000 ensures high versatility in a wide range of product applications and pack formats, including the option to expand capabilities by retrofitting interleaver and variety conveyors to meet changes in demand.



FACILITY AUTOMATION & EQUIPMENT SANITATION

€ COLUSSI ERMES

Key-Log

PROXAUT

VEMAC



+39 0434 86309
+1 858 384 2222
info@colussiermes.com
www.colussiermes.com

Salami / Crate / Pallet / Bin / Rack Washing & Crate Washer with Spin-Dryer

COLUSSI ERMES IS GLOBAL LEADER IN THE DESIGN AND PRODUCTION OF WASHING MACHINES FOR THE FOOD INDUSTRY, WITH OVER 6000 MACHINES BUILT AND SUPPLIED WORLDWIDE.

Experience, research and know-how have allowed the company to specialize not only in the bakery industry but also in the meat, dairy, confectionery, fruit & vegetables, poultry and fishery sectors as well as in more complex fields such as the pharmaceutical, hospital, logistics and automotive industry.

Innovative design, rounded shapes, accurate details, high efficiency and ongoing research for perfection in order to achieve the absolute hygiene.

Colussi Ermes addresses a constantly changing market. Our machines ensure high-reliability and flexibility while achieving excellent washing results – in compliance with the existing hygiene standards.

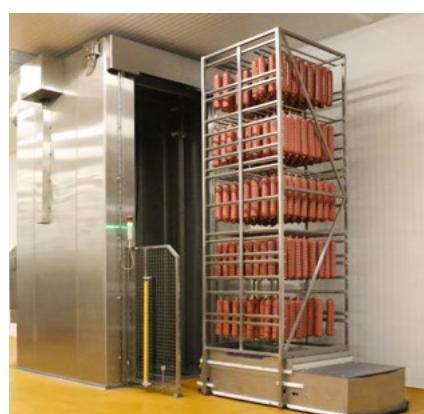
Colussi Ermes' mission consists of determining the real requirements and expectations of every single customer and proposing innovative solutions.



SALAMI WASHING

AUTOMATIC AND HIGHLY VERSATILE SYSTEM, DESIGNED AD HOC FOR THE MEAT INDUSTRY.

These systems are ideal for washing and blowing salami, speck, bresaola and other cured meats on racks and frames, or frames suspended from overhead rails. Our units ensure effective yet delicate washing, optimising production processes in full compliance with the most stringent hygiene standards removing all residues.



TUNNEL CRATE WASHING

Automatic and highly versatile systems for great range of capacities.

The crate washing systems are fully automated and designed according to extremely high quality protocols, as well as being designed and constructed specifically to customer requirements to increase efficiency and productivity.



PALLET WASHING

Flexible hourly washing capacity, from a minimum of 20 to a maximum of 300 pallets/hour.

The pallet washing systems are fully automated and allow to remove even the most stubborn residues. All units are manufactured according to extremely high quality protocols.

CRATE WASHER WITH SPIN-DRYER

A machine able to combine large drying capacity with a minimum footprint.

High capacities – up to 6,400 crates/h – along with perfect drying and the possibility to handle different crate sizes and types, set apart Colussi Ermes new generation centrifugal dryers from the rest.



RACK WASHING

This system has been carefully engineered to remove all types of residue or dirt.

The rack washing systems with hygienic design are carefully engineered to wash different kind of equipment. The washing capacity is very flexible: from a min of 20 to a max of 120 racks/h.



BIN WASHING

Automatic, highly versatile systems to wash bin with various shapes and types.

Flexible washing capacity, from a minimum of 20 to a maximum of 120 racks/h. Available in the cabin version with a single door or double “pass-through” doors, or continuous tunnel version.





+39 059 535665
info@key-log.com
www.key-log.com

Pallet transport line / Boxes transport line /
Painted steel and stainless steel systems /
Cartesian palletizer



Key-Log is a leading company in industrial automation, roller conveyors, pallets transport and plastic boxes and/or cardboard boxes of various sizes.

Key-Log's experienced founders offer customers industrial automation, customized according to their specific needs. Care is taken in every aspect of production, from design to delivery.

Solutions are tailor-made to every need and driven by research and development to create machines.

INDUSTRIAL AUTOMATION CUSTOMIZED TO YOUR PRODUCTION NEEDS

FOCUS ON INNOVATION

Industrial automation is synonymous with innovation: Key-Log's team is able to offer tailor-made solutions for every need. Research and development guide the creation of the machines.

ATTENTION TO THE DETAIL

Key-Log begins the process with extensive consultation, taking time to understand current and future needs of each facility.



INNOVATION IS OUR STRENGTH

A young company whose founders have decades of experience. We ensure innovative, high quality products and services, delivered according to the customer's schedule.



A QUALIFIED & EFFICIENT TEAM

The Key-Log team is ready to handle all types of orders thanks to our skilled designers and technicians. Beginning with a feasibility assessment, each need is addressed step by step to after-sales assistance, available both remotely and at the customer location.



DESIGN OF GOODS HANDLING

Flexibility and problem solving allow us to identify ideal solutions. Engineers, with many years of experience in the industrial automation sector, track each order to ensure an alignment with the objectives and the project completion within the established timeline.



Automated Guided Vehicles

With an assessment of your production line by our team, these innovative vehicles are capable of effectively improving plant productivity and safety. All aspects of equipment manufacture are addressed by our engineers from mechanical

and electrical design, to software, to system management. Utmost care is taken to adhere to the highest, current safety regulations. Consultants remain available throughout installation and the production life of the vehicle.



Proxaut AGVs can be divided into two major categories with unique options based on their applications. These can be highly customized or a standard model. All are powered by high performance, low maintenance lithium batteries.

AGV SHUTTLE SERIES

Maximum net capacity of up to 170 tonnes. New configurations of the entire production cycle are possible along with system flexibility versus a traditional fixed transport system.

With the adoption of an AGV loading plan these benefits are possible:

- › Multiple point product line interface
- › Stand-alone robotics or packaging lines
- › Versatile product offering potential
- › Labor reduction or available for other tasks

AGV LIFTERS SERIES

A variety of capacities are available up to a maximum net capacity of 6000 kg, based on the quantities and type of load to be handled. They perform the task of picking up and depositing the goods to be handled, replacing the traditional forklift.

This group includes AGVs commonly known as very narrow aisle (VNA) AGVs and are available in two different models; with telescopic forks or a trilateral attachment, for applications up to 13 meters in height.

Driving system technology can be one of the following or a combination.

LASER GUIDANCE

Multiple advantages in terms of path versatility, guiding precision and therefore overall performance. The heart of the system is based on the vehicle's on-board computer and the related control software (Supervisor) developed by PROXAUT. The laser scanner provides the on-board computer with the X and Y coordinates and the direction in which the vehicle is moving.



INERTIAL GUIDANCE

Course correction odometry system. At a certain defined distance along the path, passive markers or magnets are installed on the floor, which confirm the positioning of the vehicle and allow it to correct its trajectory if necessary. It is also possible to define complex and intersecting paths, with a minimized impact on the final installation.

WIRE GUIDANCE

Excellent performance in situations where the laser or the inertial system struggle to operate, such as high humidity, low temperatures, thermal variations, outdoor applications or obstacles in reading the beam. The guidance system involves the positioning on the floor of conductive wires with low frequency signals.





+39 059 536683
vemac@vemacautomazioni.it
www.vemacautomazioni.it

Automated Dry Cure Products / Handling / Lines / Molding / Transfer Transport / Sorting / Loading / Palletizing



MAXI MOULD

The patented maxi mould is designed and manufactured for the industrial and automated production of raw prosciutto portions for slicing. The system consists of a series of superimposed moulds, each composed of rectangular tubes, welded together to form a shelf. An axial-stroke pusher is installed under each tube to press the

prosciutti placed inside the tubes of the mould pictured below. The prosciutti are pressed so that each portion has a uniform cross-section with a determined length. Two prosciutti may be placed in each tube and may be pressed together (single bar) or separately.

Sequence of Operation

- ① Robot unstacks maxi mould to empty
- ② Chain handles maxi mould
- ③ Press prosciutto into the maxi mould
- ④ Robot stacks full maxi mould to be pressed
- ⑤ Washing machine for maxi mould
- ⑥ Press machine for totem



PROCESSING LINES FOR SALAMI AND DRY CURED PRODUCTS

New technologies for old traditions. Supported by the trust of our customers, we have revolutionized the process, introducing the latest generation of robot AGV (Automated Guided Vehicles) and handling systems.

Full automation of the entire system, from salami-making to packaging: Component preparation.

Vemac's Fully Automatic Functions:

- › Pick-up and orderly positioning of the salamis on sticks
- › Loading and unloading of these sticks onto racks ranging from 4 to 5½ meters high
- › Movement of the racks with robotized vehicles
- › Unloading of the salamis and feeding of the packaging line

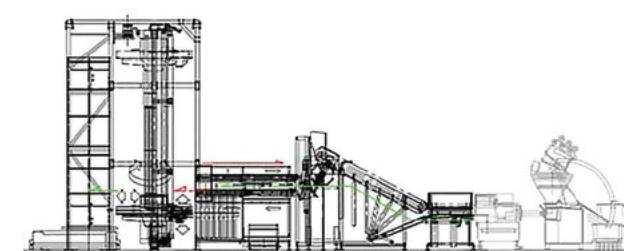
STRENGTHS

- › Fully automatic product loading up to 5,5 m high
- › Flexible solution for loading both small, medium and large diameter products
- › Products consistency provided by equal spacing for optimum air circulation



AUTOMATIC FULL LINE COMBING AND DECOMBING

- › Reduced human contact and labor
- › Compact AGV product & rack transfer
- › Accurate loading and unloading





MIDDLEBY

EQUIPMENT THAT RUNS ON INNOVATION

**EVERGROWING
SOLUTIONS FOR
A FAST GROWING
INDUSTRY.**

PROTEIN INNOVATION CENTER

EXPERIENCE TOMORROW'S
TECHNOLOGY, TODAY.

The future of innovation, rooted in decades of expertise.

The home to a new series of production lines and industry changing equipment introductions. The innovative culture of Middleby is fostered in over 53,000 square foot havens for development with technical performance and product testing. Food scientists and specialized engineers are readily available.



Protein Innovation Center

Cozzini, LLC
2567 Greenleaf Avenue
Elk Grove Village, IL, USA 60007
Conveniently located near Chicago O'Hare International Airport
+1 773 478-9700
protein_innovation@cozzini.com

Bakery Innovation Center

808 Stewart Ave.
Plano, TX, USA 75074
+1 972 509-8728
bic@middlebybakerygroup.com

Bakery Innovation Center India

Spooner Vicars BIC Jigani
Anekal Taluk Plot No. 45
Jigani Industrial Area Bangalore
562 106 India

HEAR IT FROM OUR CLIENTS

RapidVisionPak

"Machines perform very well and deliver an excellent final package to our markets. RapidVisionPak is our packaging machine of choice."

Julian Sander
Division Manager Machinery
Rieckermann
Bangkok, Thailand

Maurer-Atmos

"We are known for our naturally smoked Western Australian Christmas Ham, which we successfully produce every winter season with Maurer smokehouses. Since 2005 we have had a 10-trolley smokehouse with which we produce ham, sausages and our Italian specialties such as Coppa, Pancetta and various types of salami."

John del Basso
Owner
Del Basso Smallgoods
Perth, Australia

Thurne

"We looked for the most technically advanced slicer with the best technical support, in order to not only increase output and boost yield, but also to improve our slicing quality. Thurne provided that option and has become a very important part of our operation."

Cody Lane
President
Pederson's Natural Farms
Hamilton, TX, USA

Alkar / Armor Inox / Cozzini Danfotech / Thurne

"Fair, fast, reasonable, and brilliant. They've helped us grow, prosper and literally reinvent our company!!!"

John Richardson
Chairman of the Board
Sugar Creek
Cincinnati, OH, USA

MP Equipment

"Confidence in our relationship with MP Equipment over the years has allowed Monogram to continuously improve our systems based on shared experiences with our batter / bread and fry lines."

Matt Davis
Sr. Project Engineer
Monogram Food
Bristol, IN, USA

Alkar / Armor Inox / Cozzini Drake

"We completed the project as scheduled, in an aggressive time frame... Production ramp-up has been smooth and as expected - we look forward to doing business with them again."

Renato Cantu
Director de Proyectos Especiales
Grupo Lala
Mexico City, Mexico

Drake

"One thing I can say emphatically is that Drake is customer focused and will do what it takes to make the customer happy..."

Kevin Salva
President
Zweigle's Inc.
Rochester, NY, USA



RAISE THE BAR, LOWER THE FOOTPRINT.

At Middleby, we are committed to making a positive impact in the communities in which we live and work. We realize that the way we conduct business today impacts both current and future generations to come.

We have made it priority to balance the management of people, profits, and our planet.

Our financial investments and product innovation efforts are focused on solutions that reduce energy consumption, lessen water usage and food waste, minimize emissions and carbon footprint, and enhance safety in the workplace and at home. We have built these sustainability objectives into our development and innovation processes, which is core to our culture.

Middleby's commitment to the SDGs focuses on topics most material to our industry and issues where we can have the most impact.

At Middleby, we develop innovative, industry-leading food processing equipment designed to reduce pollution, conserve energy, and minimize waste.

Our sustainability efforts are most aligned with the following United Nations Sustainable Development Goals:



AT MIDDLEBY, WE ARE COMMITTED TO MAKING A POSITIVE IMPACT ON OUR COMMUNITIES AND FOR THE PLANET.

OUR BRANDS ARE TRANSFORMING THE FOOD PROCESSING INDUSTRY THROUGH THE USE OF SUSTAINABLE TECHNOLOGIES TO IMPROVE EFFICIENCY, CONSERVE WATER & ENERGY AND ENHANCE EMPLOYEE AND FOOD SAFETY.

LESS WASTE MORE IMPACT.

EMPLOYEES

We take seriously our responsibilities to protect, support and prepare workers for successful careers, and to advocate on their behalf. We believe in opportunity for all and are steadfast in our commitment to equal employment opportunity.



ETHICS

Middleby is committed to doing the right thing, conducting ourselves in a legal, ethical and trustworthy manner, upholding our regulatory obligations and complying with our business policies.



**AT MIDDLEBY,
OUR SUSTAINABILITY
COMMITMENTS
ARE BUILT AROUND
FOUR KEY AREAS:**



ENGAGEMENT

Middleby understands that it takes all of us working together to truly have an impact. We gladly partner with organizations to improve lives and society as a whole, by engaging in activities such as community service and philanthropy.

ENVIRONMENT

Middleby recognizes a shared responsibility to protect our planet. We endeavor every day to reduce the environmental impact of our business through preservation, conservation and waste reduction practices.



**REDUCE
GREENHOUSE
GAS EMISSIONS**



**MINIMIZE
WASTE**



**MINIMIZE
ENERGY
CONSUMPTION**



**OPTIMIZE
WATER
CONSUMPTION**

**WE HAVE MADE IT
PRIORITY TO BALANCE THE
MANAGEMENT OF PEOPLE,
PROFITS, AND OUR PLANET.
FOR A BETTER OVERVIEW
ON OUR INITIATIVES,
REQUEST A COPY OF OUR
SUSTAINABILITY BROCHURE.**

Large scale food processing facilities have traditionally been energy heavy and labor intensive. The Middleby brands are changing the food processing landscape with sustainable technologies, often cross-pollinated with our other business segments, to improve efficiency, conserve water and energy, and enhance employee and food safety.

PROCESSING & PREPARATION

COZZINI

Transport / Grind
Mix / Brine /
Massage / Emulsify

DANFO TECH

Press / Massage
Tenderize / Defrost
Separate / Mould

HINDS-BOCK

Fill / Deposit
Portion / Pump

FILTRATION AUTOMATION

Industrial Filtration

M EQUIPMENT

Portion / Form
Batter / Bread / Fry

THERMAL PROCESSING

ALKAR

Cook / Chill / Smoke
Roast / Pasteurize

Armor Inox

Automated Cook
Chill / Ham
Sous Vide

maurer-atmos

Mature / Dry / Smoke
Cook / Roast / Pasteurize
Chill / Defrost

SCANICG

Freeze / Chill
Steam / Proof

SLICING, LOADING & PACKAGING

CV-TEK

Modified Atmosphere
Packaging

DRAKE

Align / Convey
Autoload / Robotics

pacproinc

Interleavers / Stackers
Interleaving Materials

RAPIDVISION PAK

Premier Vacuum & MAP
Thermoforming Solutions

THURNE

Slicing Systems
Bacon / Meat / Cheese

FACILITY AUTOMATION & EQUIPMENT SANITATION

COLUSSI ERMES

Washing / Sanitizing
Drying

Key-Log

Automated Logistic
Solutions

PROXAVT

Automated Guided
Vehicles

VEMAC

AGV Robot
Loading / Unloading

INDUSTRIAL BAKING

AUTO-BAKE SERPENTINE

High Capacity Serpentine
Solution for all Bakery
Categories

Baker THERMAL SOLUTIONS

Proof / Bake / Cool

Burford

Automated Bakery
Equipment & Commercial
Bag Closures

ESCHER mixers

Professional Mixers

G/BT BÄCKEREI TECHNOLOGIE

German Bakery Technology

Glimek

Bread Dough
Make-up Machinery

HINDS-BOCK

Fill / Deposit
Portion / Pump

INLINE FILLING SYSTEMS

Liquid Packaging Systems

STEWART SYSTEMS

High-Capacity Bread and
Bun Conveyored Systems

pacproinc

Interleavers / Stackers
Interleaving Materials

SCANICG

Freeze / Chill
Steam / Proof

SPOONER VICARS

Complete Biscuit and
Cracker Solutions

SVEBA DAHLEN

Professional Baking
Machinery





**ONE PARTNER,
MANY SOLUTIONS.**

**MIDDLEBY WORLDWIDE (MWW)
SALES, PARTS AND SERVICES OFFICES**

China	+86 21 6769 0808	Middle East	+971 567673942
Germany	+49 1734 540593	Philippines	+63 9271741753
India	+91 89 71 89 34 44	Poland	+48 602 688 100
Italy	+39 0434-86309	South America	+55 11 3915 8100
Latin America	+52 81 8262 6000	Spain / France	+34 690 69 14 70

Scandinavia	+46 33151500
United Kingdom	+44 1603 700755
USA	+1 773 478 9700

OUR BAKERY BRANDS



High Capacity Serpentine
Solution for all Bakery
Categories



German Bakery Technology



High-Capacity Bread and
Bun Conveyored Systems



Proof / Bake / Cool



Automated Bakery Equipment
& Commercial Bag Closures



Professional Mixers



Bread Dough
Make-up Machinery



Liquid Packaging Systems



Complete Biscuit and
Cracker Solutions



Professional Baking Machinery

OUR PROTEIN BRANDS



Cook / Chill / Smoke
Roast / Pasteurize



Automated Cook
Chill / Ham / Sous Vide



Press / Massage / Tenderize
Defrost / Separate / Mould



Align / Convey / Autoload
Robotics



Portion / Form
Batter / Bread / Fry



Premier Vacuum & MAP
Thermoforming Solutions



Transport / Grind / Mix
Brine / Massage / Emulsify



Mature / Dry / Smoke
Cook / Roast / Pasteurize
Chill / Defrost



Modified Atmosphere
Packaging



Industrial Filtration



Slicing Systems
Bacon / Meat / Cheese



AGV Robot
Loading / Unloading



Washing / Sanitizing / Drying



Interleavers / Stackers
Interleaving Materials



Fill / Deposit / Portion / Pump



Automated Logistic
Solutions



Automated Guided
Vehicles



Freeze / Chill
Steam / Proof



OUR PROTEIN AND BAKERY BRANDS



Washing / Sanitizing / Drying



Fill / Deposit / Portion / Pump



Automated Logistic
Solutions



Automated Guided
Vehicles



Interleavers / Stackers
Interleaving Materials



Freeze / Chill
Steam / Proof



We don't just
build equipment.

We build
breakthrough
solutions.