

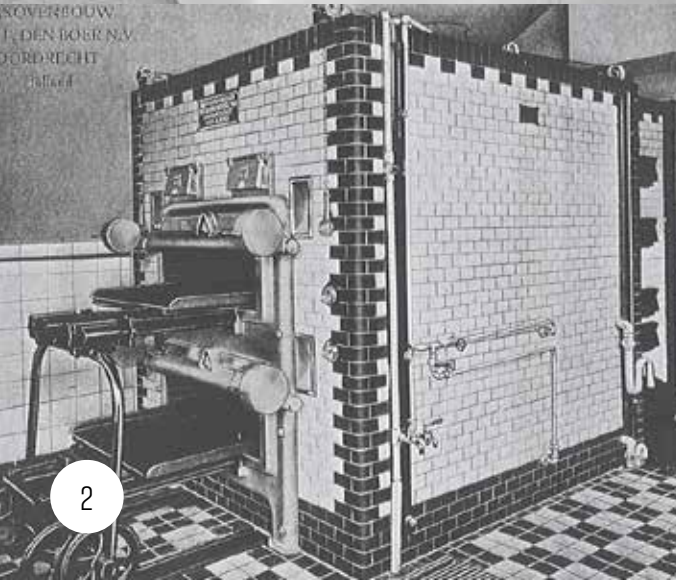


# AMF DEN BOER **PRODUCT & SYSTEM PORTFOLIO**



A Markel Food Group Company





## OVER 130 YEARS OF OVEN EXPERTISE

**Since 1890, AMF Den Boer has led the way in thermal baking technology, growing from a Dutch oven builder to a global leader in industrial bakery solutions.**

Founded in Rotterdam in 1890 as H.P. Den Boer, our company pioneered coal-fired and later gas-fired baking ovens, including the early steel ovens used aboard ships. Through decades of innovation and strategic partnerships, the company evolved under names like Winkler-Den Boer and Rademaker Den Boer. Since 2016, AMF Den Boer has been part of AMF Bakery Systems, with the brand officially relaunched in 2019. Today, we continue to build on more than a century of engineering heritage.

- Founded in 1890 in Rotterdam
- Pioneers in coal and gas-fired ovens
- Over 130 years of continuous innovation
- Part of AMF since 2016



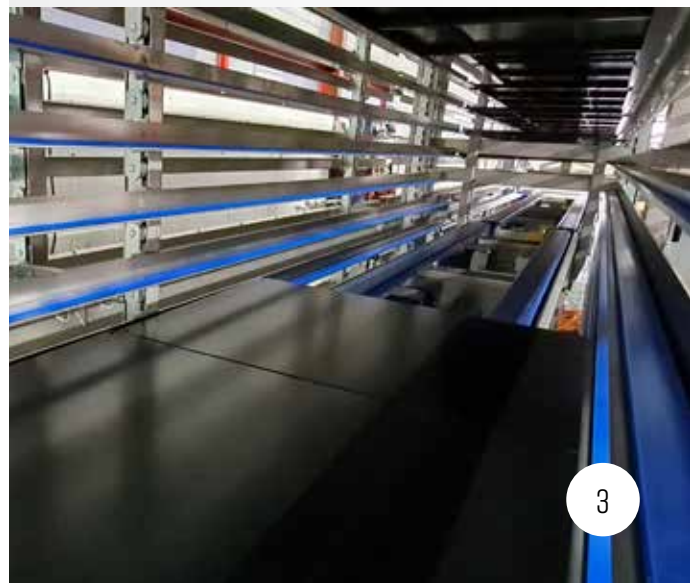
## STEP CABINET / PATERNOSTER

# FLEXIBLE PROOFING & COOLING IN ONE SYSTEM

**This compact solution offers flexible use as a proofer, cooler, or buffer - ideal for bakeries with limited space but high output demands.**

The Step Cabinet is a space-saving system that holds large numbers of baking trays in a controlled environment. Depending on your needs, it can function as a proofer, cooler, or buffering unit. With a complete stainless-steel frame, easy-access design, and climate control integration, it ensures stable production with minimal footprint. Advanced software and mechanical safety features make it a reliable and future-ready addition to any industrial bakery.

- Compact design for minimal footprint
- Multi-functional: proofing, cooling, buffering
- Stainless steel construction
- Easy maintenance access
- Built-in safety with spring-loaded conveyors
- Flexible tray handling with low-friction guides and push systems
- Ready for climate control and encasing integration







## SPIRAL PROOFER

# EFFICIENT PROOFING WITH MINIMAL FOOTPRINT

**Our spiral proofer combines compact design with high sanitation standards. Ideal for space-constrained bakeries, it ensures optimal proofing conditions with minimal energy use and maximum cleanability.**

The Spiral Proofer features a patented monopiece cage bar and open-channel design to ensure easy cleaning and maintenance. It's built for high performance with modular components and low-tension belting that reduces friction and energy consumption. This system adapts to your product and layout, providing flexible infeed/discharge configurations for optimal use of space. Stainless steel encasing and optional climate control complete the solution. Whether you're scaling up or optimizing your existing line, this proofer is a reliable choice.

- Patented hygienic cage bar design
- Low-tension belt for energy efficiency
- Faster installation time due pre-assembled design
- Compact spiral layout for space savings
- Optional climate control and belt washing system



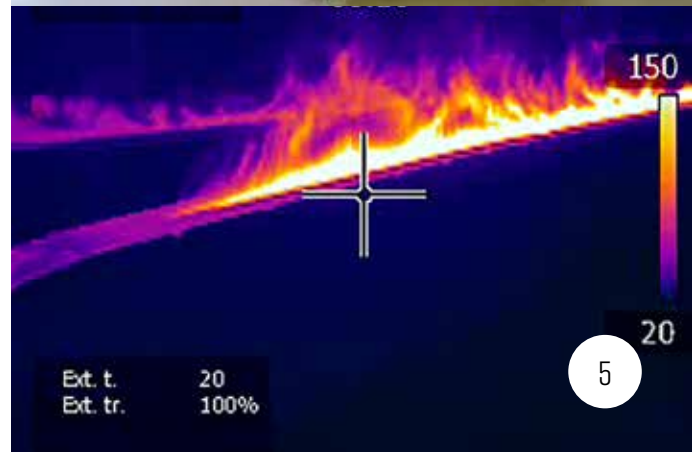
MULTIBAKE VITA | HYDROGEN

## CLEAN HYDROGEN BAKING FOR MODERN BAKERIES

**The Multibake® VITA offers clean, fully hydrogen baking technology for bakeries aiming to reduce emissions and improve energy efficiency, without compromising on product quality or flexibility.**

Designed for bakeries looking to decarbonize, the Multibake® VITA uses electric heat to provide consistent and precise baking conditions. This tunnel oven delivers excellent baking results while eliminating gas usage and reducing CO2 emissions. Ideal for facilities looking to meet sustainability goals, the VITA offers modular design and clean operation. It's compatible with a variety of bakery products and offers improved control over the baking process for optimal output and quality.

- 100% hydrogen
- Zero CO2 emissions
- Silent and clean baking process
- High control and precision







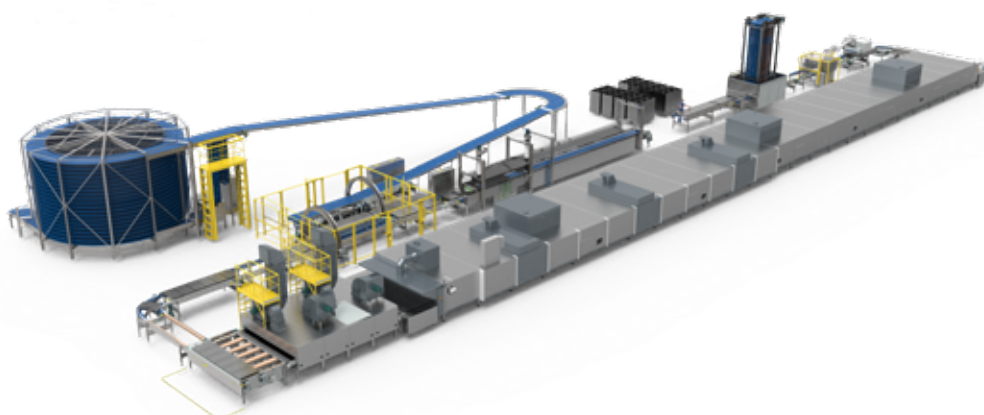
MULTIBAKE D

## DIRECT GAS-FIRED TUNNEL OVEN

**The Multibake® D is a robust, direct-fired tunnel oven designed to deliver fast, even baking for a wide variety of bread and pastry products with adjustable convection control.**

Engineered for high-performance bakeries, the Multibake® D offers direct gas-fired baking with adjustable burners across multiple zones for maximum control over heat transfer. The oven ensures a perfectly even bake thanks to smart airflow design and customizable burner settings. Its modular construction allows for easy installation and future expansion. Whether you bake buns, artisan loaves, or laminated products, this oven delivers reliability, consistency, and energy efficiency at scale.

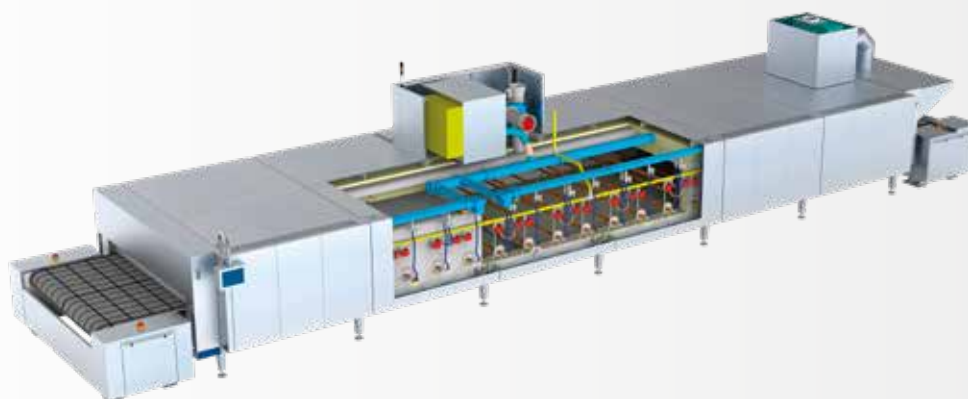
- Direct gas-fired heat transfer
- Zoned modulating burner control
- Modular and expandable design
- Ideal for diverse product ranges
- Efficient airflow management



# AMF DEN BOER ► BAKING



- Independable adjustable heat transfer from bottom and top per controllable baking zone
- Moisture monitoring and steam injection as an option
- Automatic gap detection
- A convection unit providing air movement between the burners is optional available. This unit leading towards extra heat transfer and better color control and makes faster bake possible
- Diffusor pipes surrounding the top burners provides a gentle bake by radiation of the tubes
- The heat transfer from the combustion gases of the burners towards the product is direct without any transfer losse. This has a positive influence on product development





MULTIBAKE I

## IMPINGEMENT BAKING FOR CRISP RESULTS

**The Multibake® I combines high-velocity air jets and precision control for efficient, even baking – perfect for products requiring a crisp finish and fast throughput.**

Multibake® I is an impingement oven that delivers rapid, consistent baking results using focused air jets from both top and bottom. The system is ideal for products such as thin-crust pizza, flatbreads, and other items needing high heat transfer and short baking times. Its zoned temperature control and adjustable air velocity offer great flexibility. Built with robust materials and hygienic design features, the oven minimizes maintenance and maximizes uptime in high-speed production lines.

- High-speed impingement baking
- Ideal for flatbreads and pizzas
- Crisp crust with even bake
- Fast heat transfer with air jets
- Adjustable zones and airflow control



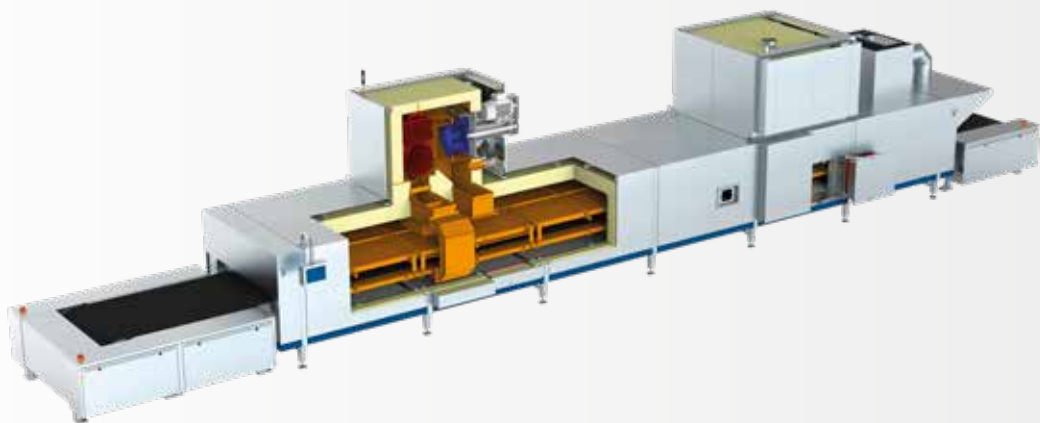


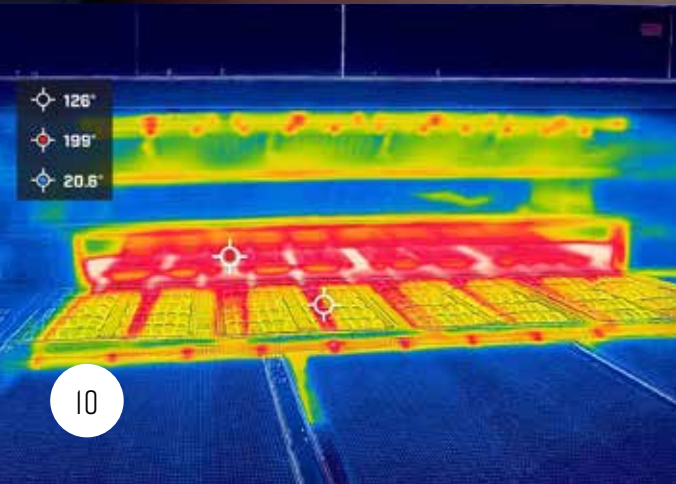
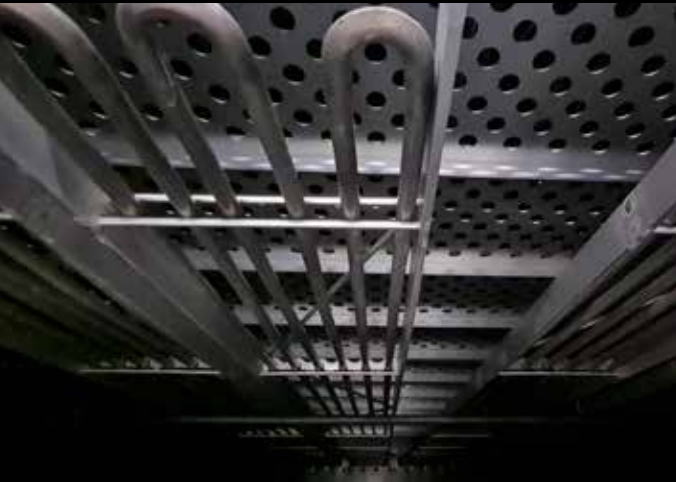
# AMF DEN BOER ► BAKING



## BURNER (MULTIBAKE I)

ASPECT	DESCRIPTION
Output	150-300 kW per burner module
Airflow	16800 m <sup>3</sup> /h per heating zone
Energy sources	Natural gas, propane, oil or electric
Heat exchanger (electric)	220 kW electric unit
Heat exchanger (gas)	300 kW gas unit using the returning flame principle
Burner tube	Constructed from Avesta 253 MA
Hairpin tubes	Made of AISI 309 stainless steel
Heat exchanger design	Optimized for low thermal stress and one-directional expansion
Front insulation	Microporous insulation material
Circulation fan	Horizontal orientation for extended lifespan and easier maintenance





## MULTIBAKE E

# ELECTRIC BAKING WITH PROVEN PERFORMANCE

**The Multibake® E is an electrically heated tunnel oven that provides clean baking with stable heat control, offering flexibility and high-quality results for a wide range of products.**

Built for bakeries pursuing energy efficiency, the Multibake® E delivers electric-powered baking with excellent repeatability and performance. The oven features fast response times, modularity, and flexible zone control. It provides uniform heat distribution without combustion emissions, making it ideal for sensitive baking environments or regions with strict energy regulations. With stainless-steel construction and reliable components, the Multibake® E helps reduce operational costs while ensuring consistent, high-quality baking results.

- Fully electric tunnel oven
- Uniform heat distribution
- Combustion-free baking
- Modular and flexible design
- Low maintenance and energy efficient







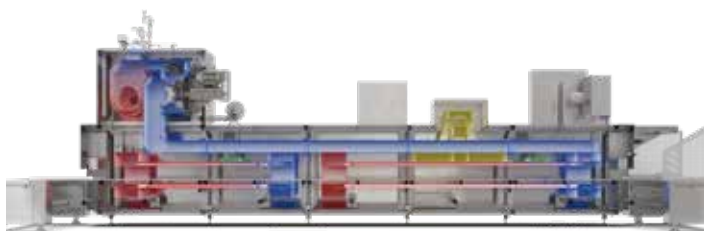
## MULTIBAKE R

# RADIANT BAKING FOR COLOR & CONTROL

**The Multibake® R uses radiant heat to deliver an even, controlled bake-enhancing crust color and product consistency across a wide variety of baked goods.**

Built for bakers who demand precision and quality, the Multibake® R oven offers direct radiant heat with advanced zone control. The system allows bakers to fine-tune the baking profile, enhancing color, texture, and shape. Its flexible configuration can include multiple heating combinations and integrates seamlessly into high-capacity lines. With low maintenance and high performance, the Multibake® R is a versatile choice for consistent quality in premium baked products.

- Radiant heat transfer
- Enhanced crust color and consistency
- Precise temperature zoning
- Low maintenance, high reliability
- Customizable configurations



## MULTIBAKE HT

# HIGH-TEMPERATURE BAKING WITH INFRARED PRECISION

**The Multibake® D-HT uses infrared burners to deliver high heat intensity up to 500°C, ideal for fast baking of pizzas, flatbreads, wraps, and specialty products.**

This direct-fired tunnel oven features metal fiber infrared burners that provide powerful and efficient heat transfer. The system allows for rapid baking with excellent control over color, texture, and energy use. It's particularly suited for flat products like pizzas, wraps, and thins. With modular configuration and robust construction, the D-HT enables flexible integration in production lines, and it ensures efficient cleaning and low energy waste with focused, high-temperature output.

- Infrared burners up to 500°C
- Ideal for flatbreads and pizzas
- Precise temperature modulation
- Compact and efficient heat zones
- Lower energy use and fast bake cycles







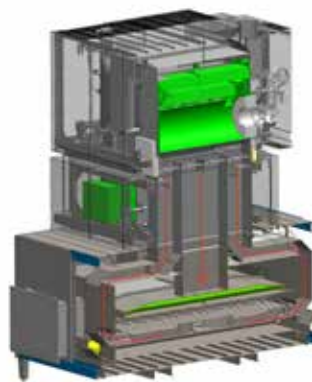
## MULTIBAKE HYBRID

# HYBRID BAKING WITH GAS & RADIATION

**The Multibake® H oven offers a hybrid baking solution using a mix of convection and radiant heat for optimal crust formation, color, and product texture.**

Multibake® H is a hybrid tunnel oven that combines radiant and direct gas fired or electrical heating technologies for high precision and flexibility in baking. The oven allows independent control of each zone, enabling bakers to fine-tune product texture and color. This configuration is ideal for products like crusty rolls, baguettes, and artisan loaves. The modular design allows for scalable installations while maintaining high performance and sanitation standards. Built for energy efficiency and robust output, it's the perfect solution for complex baking profiles.

- Hybrid radiant, electric, direct gas fired and impingement baking
- Zoned temperature control
- Ideal for artisan and crusty products
- Modular and scalable design
- Energy-efficient performance





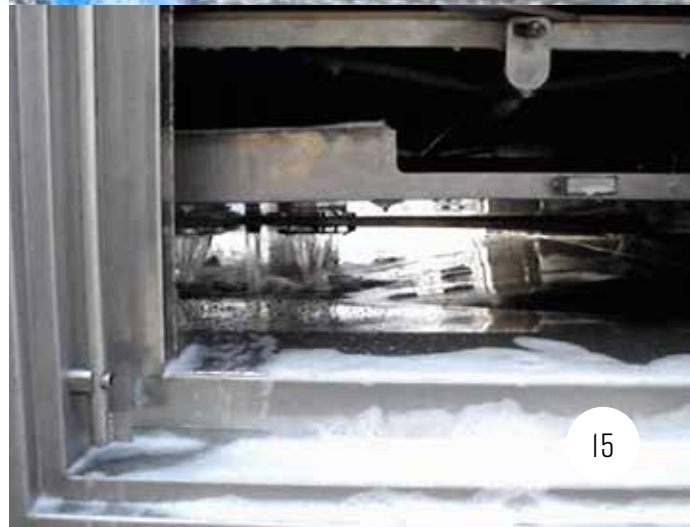
HOSE DOWN | CLEANING OF OVENS

## DESIGNED FOR WASH-DOWN ENVIRONMENTS

**Our hose-down design meets the highest hygiene standards with full stainless-steel execution and sealed components-perfect for environments requiring routine high-pressure cleaning.**

The AMF Den Boer hose-down execution is designed to meet rigorous sanitation requirements, particularly in environments with open product handling. These systems feature fully enclosed and sealed stainless-steel housings, IP-rated electrical components, and easy-access panels. Built to withstand high-pressure water and cleaning agents, they offer enhanced food safety without compromising equipment performance. Ideal for hygiene-critical zones, this execution supports regulatory compliance and easy maintenance.

- Full stainless-steel construction
- IP-rated for water resistance
- High-pressure hose-down compatible
- Enclosed, sealed design
- Enhanced food safety and compliance





## IMPINGEMENT COOLER

# HIGH-SPEED COOLING IN COMPACT FOOTPRINT

**The impingement cooler uses high-velocity air jets for rapid product cooling, minimizing floor space and energy use while maintaining consistent results.**

The AMF impingement cooler delivers fast and efficient product cooling using focused air jets with speeds exceeding 10 m/s. This stainless-steel system provides precise control of temperature and airflow, ensuring uniform cooling even with varying tray weights. Its compact design makes it ideal for bakeries with limited space. With frequency-controlled fans and integrated safety features, it offers high performance and energy efficiency in a hygienic, low-maintenance setup.

- Air jet cooling >10 m/s
- Compact stainless-steel design
- Low energy consumption
- Frequency-controlled airflow
- Uniform cooling across products and trays





## STEP CABINET

# COMPACT COOLING WITH STEPWISE PRECISION

**The Step Cabinet Cooler provides controlled, compact cooling of baking trays using vertical storage and programmable settings to ensure gentle, consistent product handling.**

AMF Den Boer's Step Cabinet Cooler is designed to cool trays in a compact vertical system while maintaining full control of climate and airflow. This unit allows for efficient buffer storage and cooling, helping to streamline production between baking and downstream handling. Built in stainless steel with easy maintenance access and flexible configuration, the cooler integrates seamlessly into automated bakery lines. Ideal for space-constrained operations, it improves throughput without sacrificing cooling quality.

- Space-saving vertical design
- Accurate climate control
- Integrated tray buffer function
- Easy maintenance access
- Stainless-steel construction







## AMBIENT PRODUCT COOLING

# EFFICIENT COOLING WITH BELT TECHNOLOGY

**Our belt cooling system offers continuous cooling for baked goods on a moving conveyor, ensuring optimal product temperature and line efficiency.**

The AMF Den Boer belt cooling system enables continuous, uniform cooling of baked products post-oven. Products travel across a belt in a controlled environment where airflow, speed, and ambient conditions are tailored to product requirements. The modular system fits seamlessly into automated production lines and is constructed from hygienic, easy-to-clean materials. With optional temperature zones and compact footprint, it's a smart solution for energy-efficient, high-throughput operations.

- Continuous inline cooling
- Modular and hygienic design
- Adjustable airflow and belt speed
- Fits any bakery layout
- Energy-efficient performance

## SPIRAL COOLER

# HIGH-CAPACITY COOLING IN SPIRAL CONFIGURATION

**The spiral cooler offers large-capacity cooling within a compact footprint, perfect for space-limited bakeries needing consistent results with minimal downtime.**

AMF's Spiral Cooler uses a spiral tower design to maximize cooling space and minimize floor area. Products circulate vertically through carefully controlled airflow for consistent, efficient cooling. Designed for 24/7 operation, the system features stainless-steel construction, automated cleaning options, and minimal maintenance. Whether cooling bread, rolls, or specialty items, the spiral cooler integrates easily into modern bakery production lines.

- Spiral design for space efficiency
- High throughput capacity
- Uniform airflow cooling
- Stainless-steel hygienic build
- Compatible with cleaning systems







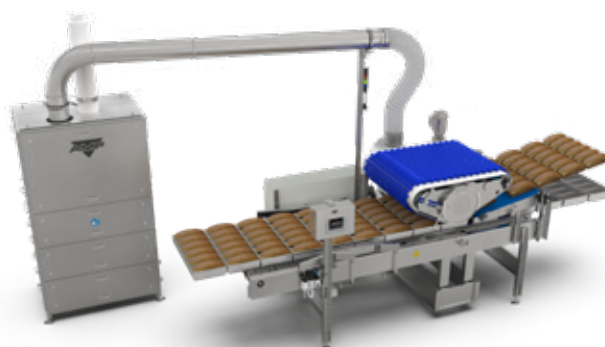
## DEPANNER

# FLEXIBLE DEPANNING FOR EVERY PRODUCT

**AMF Den Boer offers a wide range of depanning technologies - from vacuum and needle to nibbling and turning systems-ensuring gentle, reliable removal for any baked product.**

Whether your products are soft, delicate, sticky, or robust, AMF's depanning systems offer tailored solutions to suit each need. Our portfolio includes pick & place vacuum depanners, continuous belt depanners, nibbling systems for irregular shapes, and needle depanners for pinpoint extraction. With high-speed capability, gentle handling, and hygienic design, these systems ensure consistent depanning across all product types. Optional turn-and-flip mechanisms allow for orientation changes before downstream transport. Each depanner is engineered to integrate seamlessly into automated lines.

- Vacuum, needle, nibbling and belt depanning
- Gentle handling of sensitive products
- Suitable for a wide range of baked goods
- Turn & flip options available
- Seamless integration into bakery lines









# AMF DEN BOER ► HANDLING & CONVEYING



## ROBOT APPLICATIONS

# ROBOTIC PAN STACKING & UNSTACKING

**The AMF robotic system automates pan stacking and unstacking using a high-speed 4-axis robot with magnetic grippers - ensuring efficient, gentle handling and seamless integration.**

This robotic pan handling system features the Fanuc M-410iC/185 robot arm, capable of lifting multiple pans at once with precision and speed. Magnetic end effectors ensure secure grip and smooth placement. A dedicated safety cell and smart control interface support autonomous operation or use as a buffering system. Fully integrated with AMF's central control system, the robot enables efficient tray changeovers and reduced labor. Built with carbon steel framing and optional AGV compatibility, it is designed for safe, hygienic operation in high-speed bakery lines.

- Fanuc M-410iC/185 robotic arm
- Magnetic gripper for multiple trays
- Stack, unstack, or buffer functionality
- Safety enclosure with muting light screens
- AGV-compatible and low maintenance





## GANTRY STORAGE SYSTEM

# AUTOMATED TRAY HANDLING WITH GANTRY SYSTEM

**The gantry system provides fast, accurate tray loading and unloading using servo-driven linear motion and customizable end-of-arm tooling for high-speed production lines.**

AMF's gantry tray handling system offers reliable automation for transferring trays into and out of racks at speeds up to 750 trays per hour. Powered by Güdel linear servo drive technology, the gantry ensures smooth, precise motion across multiple stacking levels. Customizable tooling - grippers, magnets, or pneumatics - accommodates diverse tray types. Its compact footprint, stainless-steel structure, and safety fencing make it a durable solution for space-conscious bakeries requiring high throughput and sanitation compliance.

- Up to 750 trays/hour
- High-precision linear servo drive
- Modular EOAT: gripper, magnet, pneumatic
- Compact layout with safety fencing
- Stainless-steel construction



# AMF DEN BOER ► HANDLING & CONVEYING



## CONVEYING SYSTEMS

# SMART CONVEYING FOR SEAMLESS FLOW

**AMF conveying systems synchronize every step in the baking process-reducing waste, controlling speed, and maintaining production flow with modular, hygienic conveyor solutions.**

AMF's conveying portfolio includes cam conveyors, flat-top chains (straight and curved), and pneumatic transfer units. Each module is engineered for low maintenance and high reliability, supporting controlled start/stop, tray orientation changes, and precise tray positioning. Using materials like Intralox, SEW, and stainless steel, these conveyors minimize friction and noise. Our smart synchronization and recovery logic ensures minimal downtime and optimal throughput, while modularity enables easy reconfiguration for line upgrades.

- Cam, chain, and curve conveyors
- Square transfer units for 90° turns
- Gentle tray handling and buffering
- Synchronized with baking line logic
- Low noise, low maintenance





# AMF DEN BOER ► PAN HANDLING

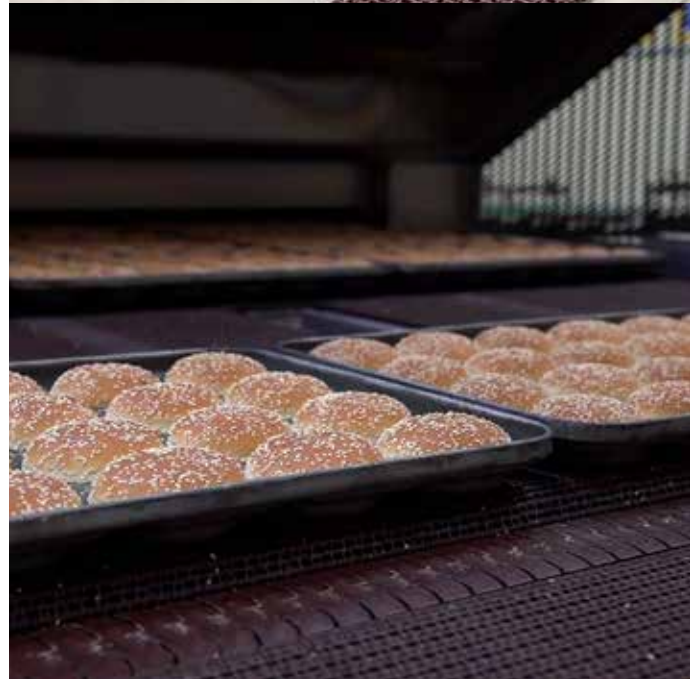
## OVEN LOADER & UNLOADER

# PRECISE LOADING & UNLOADING OF TRAYS

**Our modular loader and unloader systems ensure smooth tray transitions in and out of ovens-maximizing control, minimizing waste, and supporting high-speed operations.**

The loader uses a modular belt conveyor and pushbar to position trays evenly before baking. Frequency-controlled motors and encoders ensure exact timing and spacing. The unloader captures trays post-bake, forms them into a single row, and lifts them away using a flat-top chain. Designed for oven integration and tray overflow management, both systems are made from hygienic materials and tailored for minimal floor impact. Safety fencing is optional for zero-access environments.

- Tray positioning with pushbar system
- High-speed unloading and gap control
- Modular belt and flat-top chain designs
- Optional zero-access safety
- Full integration with oven controls



# AMF DEN BOER ► PAN HANDLING



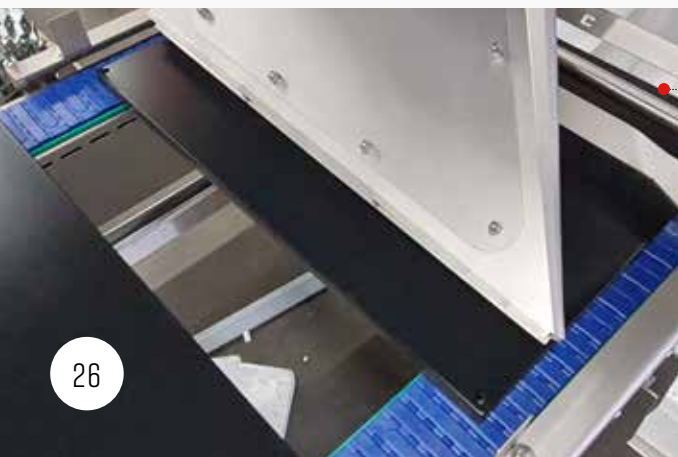
BUFFER & ELEVATOR & PAN CLEANING

## RELIABLE BUFFERING IN A COMPACT DESIGN

**AMF's Step Cabinet Buffer temporarily holds baking trays in a controlled environment, balancing the flow between production steps with minimal footprint and flexible configurations.**

The Step Cabinet Buffer is a vertical tray handling system designed to store and buffer baking trays between key process stages. With stainless-steel construction, spring-loaded conveyors, and a smart chain drive system, it ensures gentle tray handling and stable product flow. Maintenance access is easy, and the unit's programmable controls optimize timing and performance for various line setups.

- Proofer, cooler, or buffer functionality
- Low-friction tray handling
- Spring-loaded conveyors for added safety
- Small footprint, big capacity
- Stainless steel with easy access
- Pan cleaner; high velocity air blower to remove dry crumbs from pans





## SUSTAINABLE OVEN SERVICE

# DIGITAL INSIGHTS FOR SUSTAINABLE BAKING

**AMF's Sustainable Oven Service combines real-time data analytics, AI, and expert guidance to optimize oven performance, reduce emissions, and lower energy costs.**

The Sustainable Oven Service (SOS) connects your oven to the AMF cloud and unlocks smart diagnostics and performance insights. Using encrypted data transfer, algorithms analyze oven behavior, provide live KPIs, and generate expert recommendations. From energy usage to temperature accuracy, bakers receive actionable data for tuning performance and improving consistency. This service can save up to 20% in natural gas and emissions, and it's available for new or retrofitted ovens as a subscription.

- Save up to 20% gas and CO<sub>2</sub>
- Live KPIs and startup predictions
- AI-driven recommendations
- Secure cloud connectivity
- Compatible with any tunnel oven



### Resulting in:

- ✓ Up to 20% savings on natural gas
- ✓ Reduced CO<sub>2</sub> emissions up to 20%
- ✓ Reduced waste
- ✓ Improved product quality and consistency
- ✓ Valuable insights into your oven's baking behavior





## SCORPION PROFILING SYSTEM

# OVEN PROFILING FOR TOTAL PROCESS INSIGHT

**The Scorpion system captures detailed thermal profiles across your oven's width and length, helping optimize performance, ensure food safety, and support continuous improvement.**

The Scorpion measures four key baking parameters-temperature, humidity, airflow, and heat flux-to generate real-time process insights. It supports kill-step validation, bake curve analysis, and statistical process control, giving bakers actionable data to fine-tune their ovens. Ideal for process audits and product optimization, the Scorpion is compatible with baking and proofing systems, enhancing consistency and energy efficiency across operations.

- Measures temperature, airflow, humidity, heat flux
- Enables kill-step validation
- Generates bake curve S-curves
- Supports statistical process control
- Works in ovens and proofers





## PARTS & DURABILITY

# RELIABLE PARTS FOR LONG-TERM PERFORMANCE

**AMF Den Boer delivers durable, OEM-certified spare parts that ensure long-term reliability and performance. With global availability and expert support, we keep your bakery line running smoothly and efficiently.**

To maintain the performance and longevity of your baking systems, AMF Den Boer offers a full range of high-quality replacement parts. From belts and chains to motors and wear components, our parts are engineered to fit perfectly, backed by OEM specifications and tested for durability. We offer fast global delivery from regional warehouses and proactive service programs to prevent unplanned downtime. Using original AMF parts ensures maximum uptime, safety, and efficiency throughout your bakery's lifecycle.

- OEM spare parts with global availability
- Tested for performance and longevity
- Rapid delivery from regional hubs
- Preventive maintenance planning
- Expert parts support team



## AMF DEN BOER ► PARTS & SERVICE



### CUSTOMER CARE & SERVICE

## GLOBAL SERVICE. LOCAL SUPPORT.

**AMF Den Boer's Customer Care team provides around-the-clock service, remote support, and local expertise to maximize uptime, reduce costs, and improve bakery line performance.**

From installation to lifecycle support, AMF Den Boer delivers reliable service to bakeries worldwide. Our Customer Care program includes remote diagnostics, 24/7 support, and on-site assistance from trained specialists. We offer tailored maintenance plans, operator training, and line audits to help you optimize performance and prevent breakdowns. With regional teams across the globe and a commitment to quick response times, we support your operations wherever you are.

- 24/7 remote and on-site support
- Predictive maintenance & audits
- Operator and technician training
- Local service teams worldwide
- Lifecycle support for maximum uptime







## LIFETIME SUPPORT. ANYTIME. ANYWHERE.

AMF's customer care team provides a range of parts, repair, service agreements, and training solutions to empower your bakery teams and keep your production lines running at optimal efficiency for the enduring success of your bakery.

- ▶ Reduce Downtime with Service Plans
- ▶ Connect in Real-Time via VirtualCare
- ▶ Access AMFMethod™ Training Tutorials

### Contact your regional customer care team:

North America	+01-804-342-9700
Latin America	+52-229-915-3501
Europe, M.East, Africa	+31-183-627-555
Greater Asia	+65-8128-4044
China	+86-150-2244-2472

Or request support via email with a 24-hour response time during working hours at [support@amfbakery.com](mailto:support@amfbakery.com). You can also download the **MyAMF Mobile App** from your App Store today to quickly connect with your customer care team and related support tools.



*Your baking partner for  
improved efficiency,  
consistency, and  
profitability.*

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