

SUCCESSFUL SNACKS START HERE



READING BAKERY SYSTEMS



Collaboration. Innovation. Technology. Expertise.

All the ingredients for successful snacks



Staying ahead in an industry that never stands still

Snack food manufacturers need processing solutions that adapt with their ever-changing products. Equipment today needs to do more than just perform with little maintenance or downtime. It needs to provide value through customization and adaptability.

Reading Bakery Systems understands the dynamic nature of the global baked snack food industry. We work side-by-side with our customers to meet their process and product challenges with innovative thinking and high quality systems and components.

Our experienced people apply decades of manufacturing and food engineering expertise to help customers create successful baked snack products.

We serve our customers as a proud member of the Markel Food Group. With the combined resources of AMF Bakery Systems, Reading Bakery Systems, Tromp Group and Solbern, the Markel Food Group offers a wide portfolio of innovative and reliable production solutions for snack foods, breads and buns, pizza, pastries, pies, and other food products, as well as food product folding and container filling solutions.



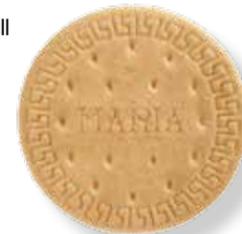
A broad array of baking solutions

Reading Bakery Systems offers Thomas L. Green and Reading Pretzel high production processing lines capable of producing a wide range of snack products, innovative Exact Mixing continuous mixing solutions that support and expand the product varieties served, and Reading Thermal's SCORPION® 2 Data Logging Measurement System that ensures oven optimization and solves process problems.



Succeeding side by side

Working in close collaboration with customers, our engineering and manufacturing teams create systems that are safer, more flexible, and more efficient than ever before. And our sales and technical service groups engage and support our customers with solutions that will keep them competitive in a very challenging food market.



The science of success

At our Science & Innovation Center, a dedicated R&D facility, you can work with our team to develop new snack products; validate new ingredients; test new machinery; research innovations in mixing, forming, baking and drying; and produce market samples for testing.



Science and Innovation Center

A unique place to communicate, collaborate and innovate

At our fully equipped, licensed food processing facility, a unique spirit of collaboration blurs the line between our team and yours. Goals and challenges are shared, and problems worked out together. That way you gain the confidence that you are bringing the right product to market and taking advantage of the latest technologies to make your commercial scale operation as efficient as possible.

Here at this dedicated R&D facility, you can collaborate discreetly with our experienced engineers to develop new processes; validate new ingredients; conduct shelf-life studies; test new machinery and processing techniques; research profitable innovations in mixing, forming, baking and drying; and produce market samples for evaluation and testing.

With a complete process line for making baked snacks and many other food products, the Science & Innovation Center allows you to test a variety of batch and continuous mixing concepts as well as forming processes. For flexibility and easy product changeovers, we offer a PRISM OVEN that is capable of baking a wide variety of products.

In addition, you will have access to the Reading Thermal SCORPION® 2 Data Logging Measurement System to help measure and record conditions in the processing oven. The Center also includes private customer conferencing areas, and a Quality Control Lab with analytical equipment to examine the samples that are produced.



The Science & Innovation Center includes all the process equipment needed to duplicate conditions you might encounter in full-scale production. It's the best possible way to ensure a successful manufacturing process and gain the confidence of all members of your development team.



Pretzel & Snack Systems:

Flexible, efficient, turnkey production lines for extruded pretzels and snacks

System outputs from 400-1000 kg/hr of finished product



Continuous Mixing

Continuous Mixing offers the most consistent dough to your production line, producing consistent products all day, every day.

Dough Handling

The completely automated Dough Handling System precisely portions, conditions and transports dough to the Low Pressure Extruder.



Extrusion

Our flexible Low Pressure Extruders allow for the creation of pretzel shapes, sticks and other extruded snack products on one production line.



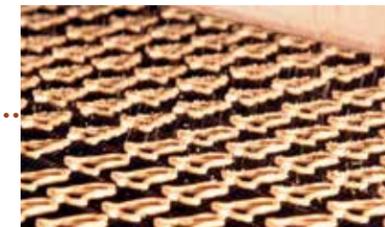
Guillotine Cutting

The single-blade design provides precise, consistent cutting and product separation of sticks and nuggets across the width of the line.



Omega I Dispenser

The Omega I Dispenser delivers salt and other granular material at reliable rates across the line and over time.



Baking & Drying

The flexible SPECTRUM OVEN® provides a variety of heat transfer combinations within a modular design, which enables the production of different products by simply adjusting the heat transfer profile.



Pretzel Cooker

Designed to evenly and accurately cook pretzel products, the Pretzel Cooker ensures consistent texture, pH and color prior to the baking process.



Multi-Crisp Baked Snack Systems:

A flexible system to create snack crisps from potato, wheat, multi-grain or corn masa flour doughs

System outputs from 250 -1000 kg/hr of finished product



Continuous Mixing

A specialized liquid injection system and revolutionary mixer shaft design evenly distribute moisture throughout the dough, and create consistent, appealing product textures.



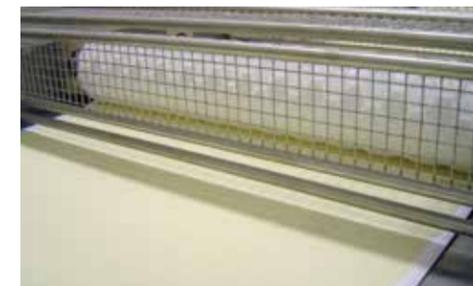
Dough Handling

The dough transport conveyor ensures that the dough makes it from the mixer to the 2-Roll Sheeter hopper on a first-in, first-out basis.



2-Roll Sheeting

The single-reduction, 2-Roll Sheeter produces a continuous dough sheet discharged directly onto the Rotary Cutter infeed conveyor.



Rotary Cutting

The die roll on the Rotary Cutter separates the dough sheet into distinct shapes.



Baking & Drying

The single-pass SPECTRUM OVEN® is a proven convection baking system suitable for balanced baking and developing interesting textures in multi-crisp products. An optional Multi-Pass Dryer provides faster oven speeds, greater production throughput, and more process control.



Cracker Systems:

Durable, reliable and sanitary Thomas L. Green production systems

System outputs from 500-5500 kg/hr



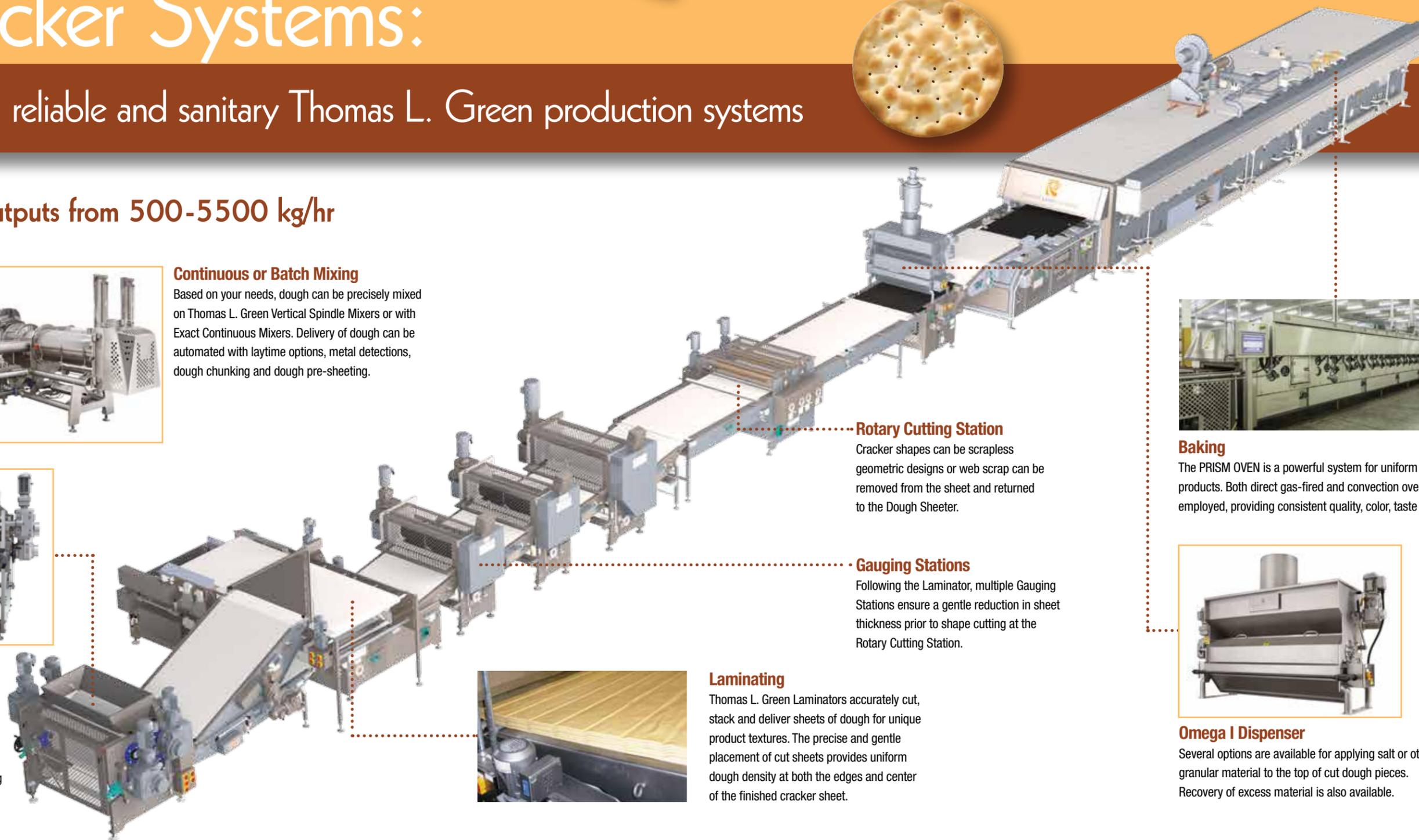
Continuous or Batch Mixing

Based on your needs, dough can be precisely mixed on Thomas L. Green Vertical Spindle Mixers or with Exact Continuous Mixers. Delivery of dough can be automated with laytime options, metal detections, dough chunking and dough pre-sheeting.



Sheeting

The process begins with a Primary Sheeter producing a hole-free sheet at a uniform density, which is critical to automated packaging systems after the oven.



Rotary Cutting Station

Cracker shapes can be scrapless geometric designs or web scrap can be removed from the sheet and returned to the Dough Sheeter.

Gauging Stations

Following the Laminator, multiple Gauging Stations ensure a gentle reduction in sheet thickness prior to shape cutting at the Rotary Cutting Station.

Laminating

Thomas L. Green Laminators accurately cut, stack and deliver sheets of dough for unique product textures. The precise and gentle placement of cut sheets provides uniform dough density at both the edges and center of the finished cracker sheet.



Baking

The PRISM OVEN is a powerful system for uniform baking of cracker products. Both direct gas-fired and convection oven modules are employed, providing consistent quality, color, taste and texture.



Omega I Dispenser

Several options are available for applying salt or other granular material to the top of cut dough pieces. Recovery of excess material is also available.



Hard and Soft Biscuit Systems:

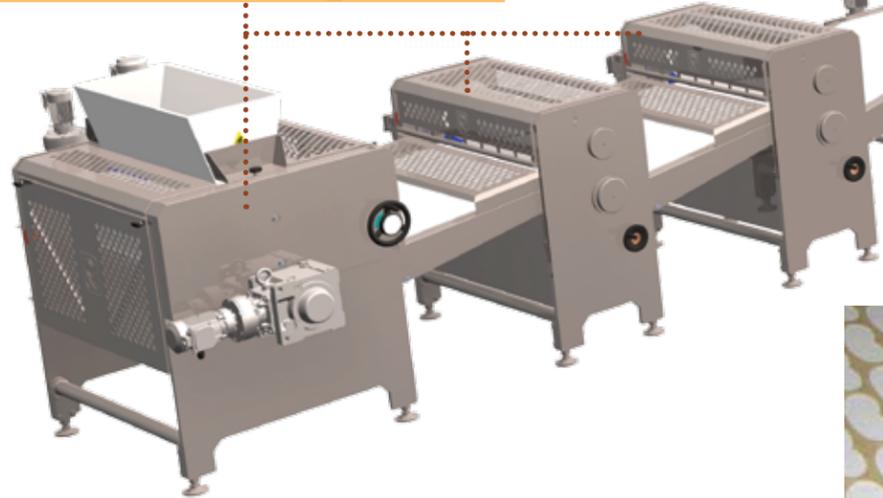
Flexible, reliable and efficient Thomas L. Green biscuit production systems

System outputs from 500-2500 kg/hr



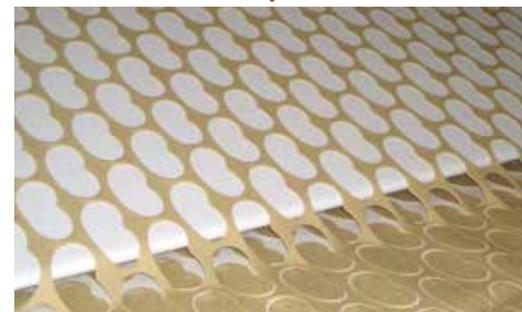
Forming Equipment – Hard Biscuits

The Thomas L. Green 3-Roll Sheeter generates a consistent dough sheet ready for further thickness reduction. The Gauging Stations ensure a gentle reduction in sheet thickness prior to shape forming.



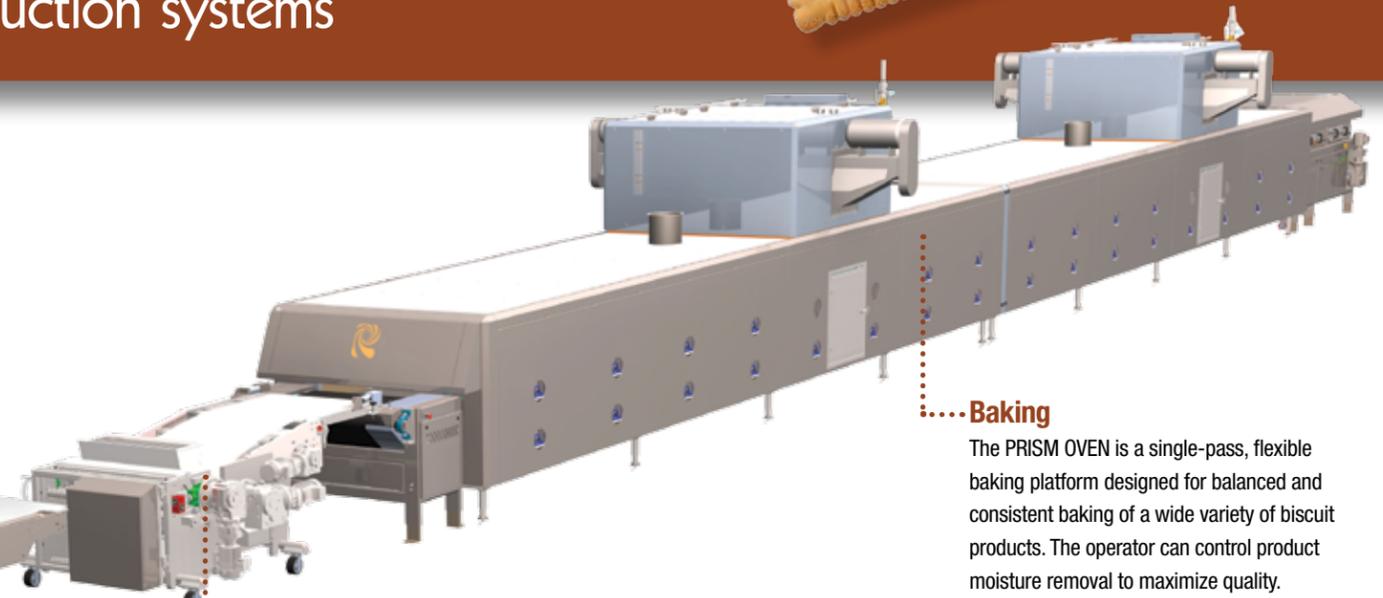
Forming Equipment – Soft Biscuits

The Rotary Molder efficiently produces high-definition, three-dimensional biscuits, cookies, sandwich cookies, bars and pet treats. The interchangeable die roll is made of engraved brass and can be supplied with segmented rings for multiple shapes.



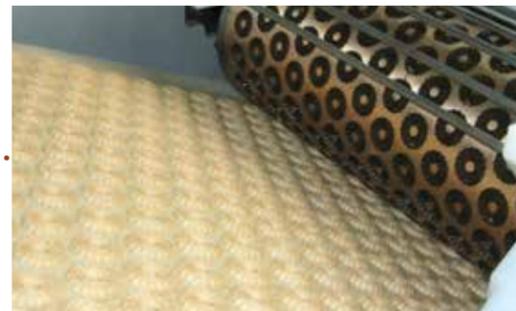
Rotary Cutting Station

Scrapless geometric shapes and distinct biscuit shapes can be formed by the Rotary Cutting Station. All Rotary Cutter die rolls are easily and quickly changed for increased product flexibility and decreased production downtime.



Baking

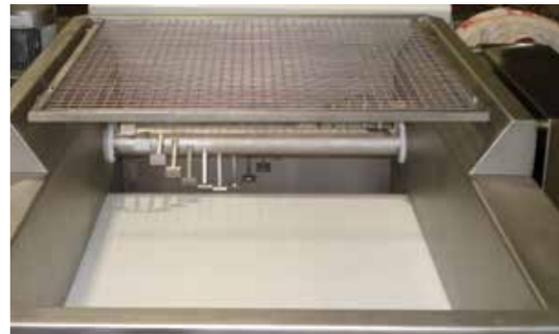
The PRISM OVEN is a single-pass, flexible baking platform designed for balanced and consistent baking of a wide variety of biscuit products. The operator can control product moisture removal to maximize quality.



Wirecut Cookie Systems:

Reliable, efficient and cost-effective Thomas L. Green cookie production systems

System outputs from 200-3600 kg/hr



Dough Handling Equipment

When using an automated handling system, the dough is transported from the batch or continuous mixer into a dough handling conveyor with a kibbler or sheeter attachment. This prepares the dough for the Wirecut Machine.



Forming Equipment

The Wirecut Machine creates a variety of cookies, biscuits and bar products. It's designed to provide piece-weight accuracy and reliability, and is best for non-descript shapes.



Baking

The PRISM OVEN is a single-pass, flexible baking platform designed for balanced and consistent baking of a wide variety of biscuit and cookie products. The operator can control product moisture removal to maximize quality.



Exact Continuous Mixing Systems:

Provide a consistent, uniform dough stream to your production line

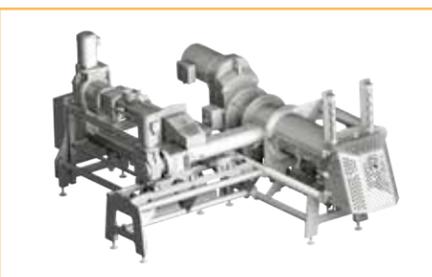
System outputs from 200 -10,000 kg/hr



The **EX Continuous Mixer** produces low absorption dough for products such as pretzels, bagels, cookies and crackers, as well as high absorption dough for bread, buns and pizza.



The **FX Continuous Mixer** is a high intensity mixer that produces dough typically used for wheat, potato, corn masa flour and multi-grain snack products.



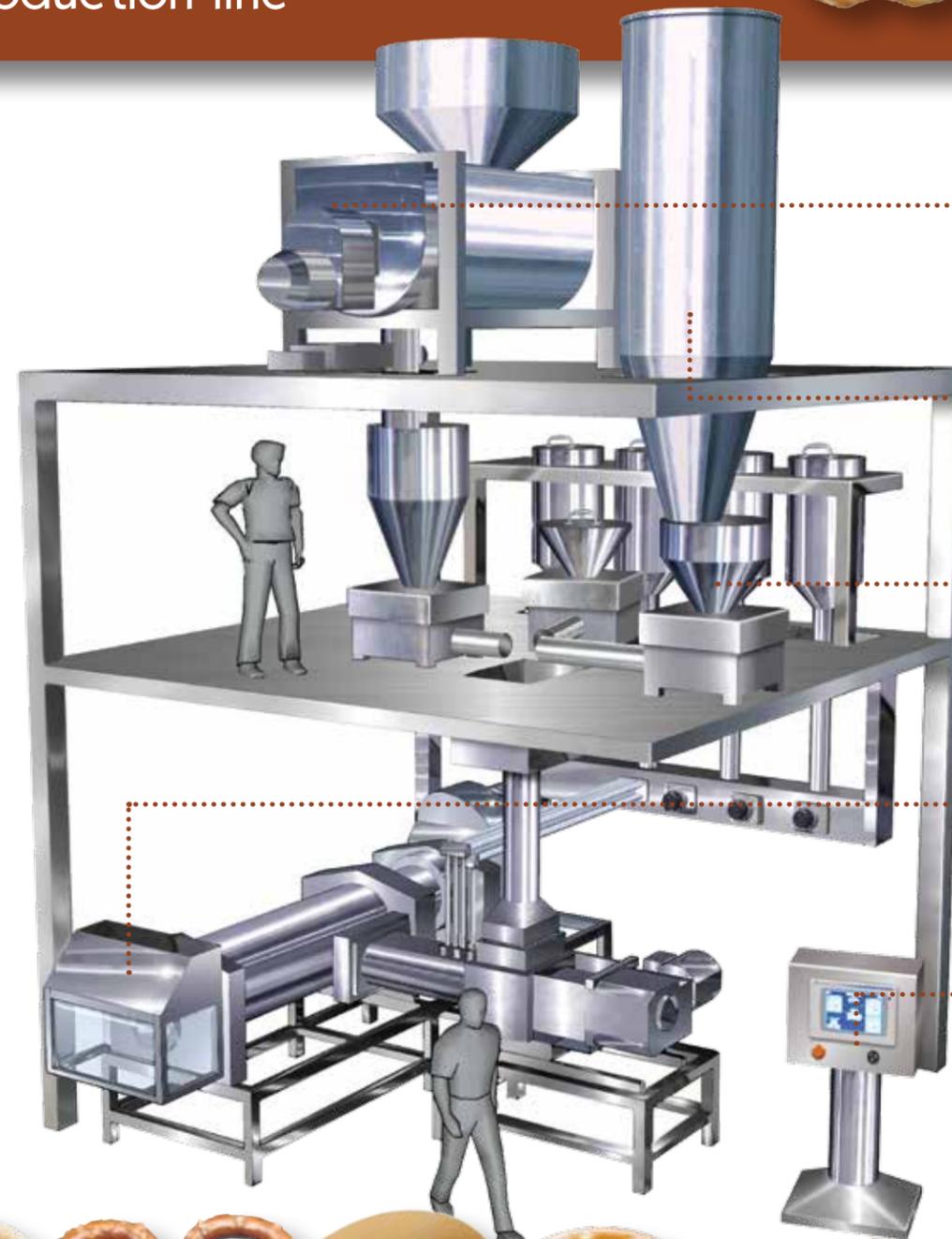
The **LDX Continuous Mixer** is ideal for low development dough requiring two stages of mixing. These products include rotary molded cookies, wirecut cookies and crackers. The multistage mixing design allows the creme up stage to be automated in conjunction with the dough mixing.



The **MX Continuous Mixer** is a versatile mixer used to make cremes and icings. It is also an ideal first stage continuous mixer for creme up stages, liquid brews and sponges.



The **HDX Continuous Mixer** is designed for low temperature dough requiring two stage mixing and high development. Products made on the HDX Mixer include buns, bread, rolls and most products with absorption above 60%.



Minors Blending

To reduce costs, increase flexibility and simplify the process, some minor ingredients are automatically pre-blended before metering.

Materials Handling

We work with vendors who specialize in solutions, including dilute phase, dense phase, vacuum and pressure processes. We can also customize input methods to your individual process needs.

Ingredients Metering

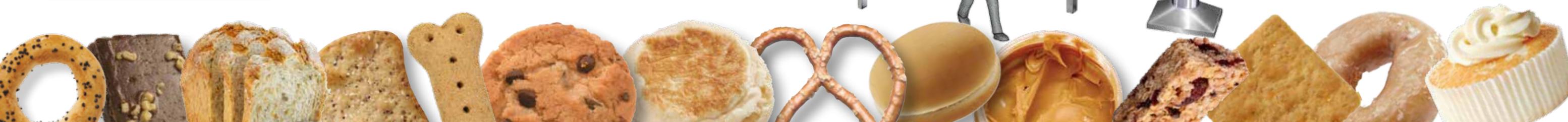
Gravimetric, Loss-in-Weight technology provides precise, uninterrupted dry ingredient metering to the Continuous Mixer. Flow-meters connected to the closed loop control system ensure that liquid ingredients are accurately delivered to the Mixer.

Continuous Mixer

Continuous mixing is the process of continuously metering ingredients directly into the mixing chamber. The mixing may be done in stages to ensure all ingredients are incorporated properly.

Operator Interface

All metering and mixing procedures are monitored and initiated by the control system so the operator is always able to confirm and modify as needed.





SCORPION[®] 2

Data Logging Measurement System with SMART SENSOR TECHNOLOGY™

SCORPION[®] 2 with SMART SENSOR TECHNOLOGY™

This technology enables you to monitor real-time in-process conditions, giving you the critical information you need to correct problems and maintain perfect process conditions in your oven, dryer or cooling tunnel.



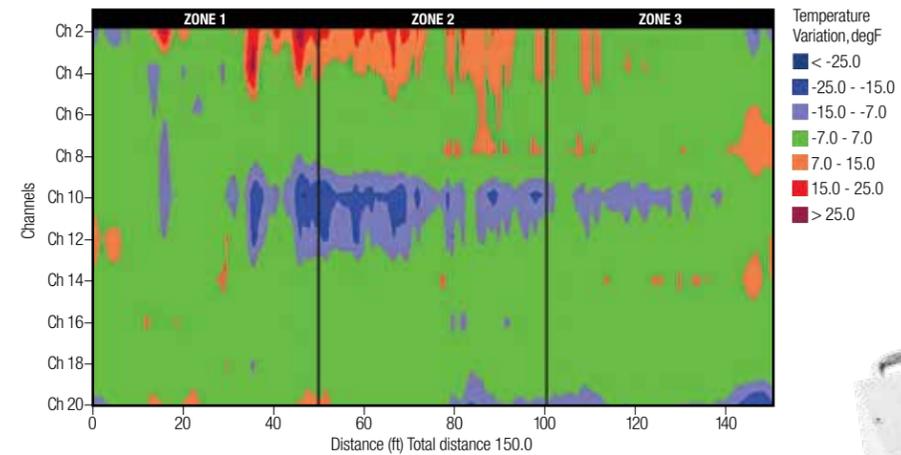
Heat Flux Sensor

Sensor measures both convective and radiant heat flux enabling the control of finished product characteristics across multiple lines.



Air Velocity Sensor Array

Sensor array measures airflow patterns at product level helping to maintain uniform distribution of airflow, which directly affects the amount of heat delivered to the product.



Temperature Sensor Array

Sensor array measures side-to-side temperature variation across the width of the conveyor allowing for precise temperature adjustments to eliminate unevenly baked product.



Humidity Sensor

Sensor measures moisture content of the thermal environment in heating and cooling processes, yielding a precise profile of moisture experienced by the product.

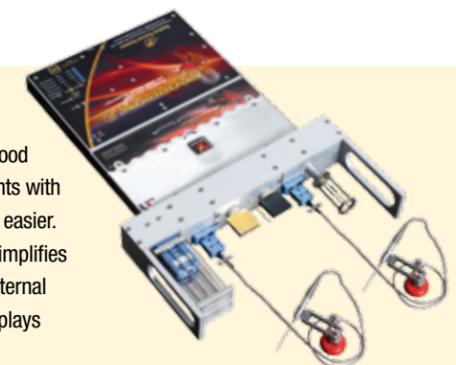


R&D Smart Sensor™

This multi-element sensor enables you to collect 4 key parameters (temperature, airflow, product core temperature and energy transfer) in a single-pass through a process.

Optimize food safety and throughput

Controlling internal food temperature is key to achieving food safety. Today's food processors must also document how they are meeting food safety requirements with data. The SCORPION[®] 2 Data Logging Measurement System makes both jobs easier. The SCORPION[®] 2 Data Logger with R&D Smart Sensor and Product Probes simplifies the measurement of environment temperature, airflow, energy transfer and internal product core temps. Plus the SCORPION[®] 2 Software (SV8) calculates and displays the % kill for a specified pathogen reduction level.



Global Representation



READING BAKERY SYSTEMS

THOMAS L. GREEN | READING PRETZEL | EXACT MIXING | READING THERMAL

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