

VECTOR SERIES

SNACK & BISCUIT PRODUCTION SYSTEMS



READING BAKERY SYSTEMS

Streamlined equipment designs for optimizing snack production

The RBS **Vector Series** is specifically designed to meet the needs of snack producers in today's emerging markets. The Vector Series features streamlined designs of our production lines, with innovative engineering and best-in-class construction to maximize value and efficiency. The Vector Series has all the ingredients to produce the world's most popular snack products.



About RBS

Shaping the future of the snack food industry for over 125 years

At Reading Bakery Systems (RBS), we understand the dynamic nature of the baked snack food industry. As leaders in the snack business we collaborate, leverage technology and apply our expertise to help our customers innovate, and push the industry forward.

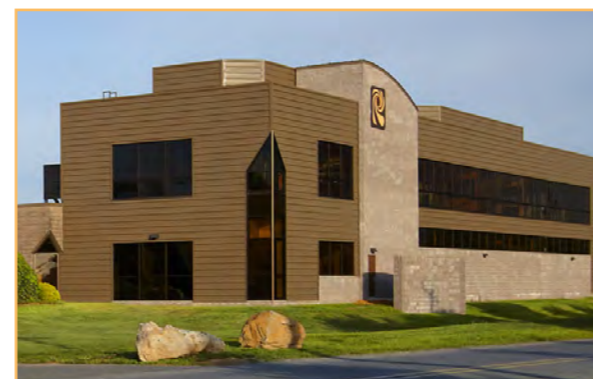
Powered by Partnerships

RBS is a proud member of the Markel Food Group. The Markel Food Group, with the combined resources of AMF Bakery Systems and Reading Bakery Systems, offers customers a wide portfolio of innovative and reliable production solutions for snack foods, breads and buns, pizza, pastries, pies, and other food products.



Serving the Global Snacks Market from Locations Around the World

RBS has elevated its global presence with full-scale production facilities in both the US and China. Along with sales and service representatives strategically placed throughout the world, RBS is able to decrease technical support response and delivery times.



Robesonia, Pennsylvania USA



Tianjin, China



Mixing Equipment

It's all in the mix

When it comes to making consistently great cookies, biscuits, and snacks, RBS has a variety of mixing solutions to meet every customer's needs.



Vertical Spindle Mixer

The Thomas L. Green Vertical Spindle Mixer is a proven and efficient solution for mixing cracker dough. It is an excellent choice for two stage batch mixing where consistency and repeatability are necessary for product quality control.



AMF DDM Mixer

AMF DDM Mixers with Sigma or Z elements offer maximum flexibility for snack, cracker, cookie and biscuit dough. For safety, automatic controls make sure operators aren't exposed to moving parts. Clean-up is quick and easy for maximum sanitation.

Dough Handling Equipment



RBS custom dough handling systems are designed around your production demands, the level of automation required and your plant layout. Our automated systems reliably process, condition and transport dough to the forming equipment.



Dough Feeder with Sheeter



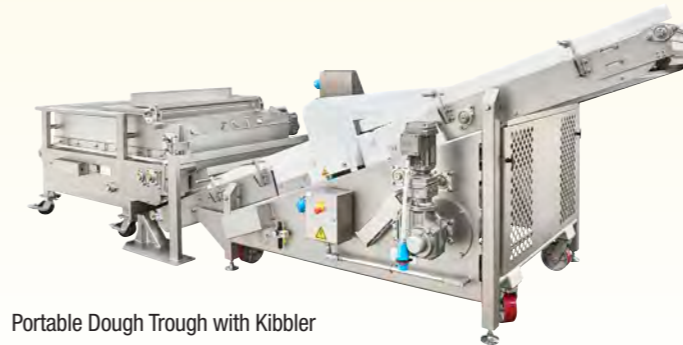
Trough Hoist



Pretzel/Snack Doughbot System



Dough Feeder with Chunker



Portable Dough Trough with Kibbler



Vertical Dough Feed System

Pretzel and Snack Systems

FLEXIBLE, EFFICIENT PRODUCTION LINES FOR EXTRUDED PRETZELS AND SNACKS

SYSTEM OUTPUTS FROM 125-500 KG/HR.



< Low Pressure Extruder

Our Low Pressure Extruder produces pretzel sticks, shapes and other extruded products on a single machine. Product changeover is as simple as exchanging one compression head and die for another one with a different shape. The simple assembly means product changeover takes just minutes.



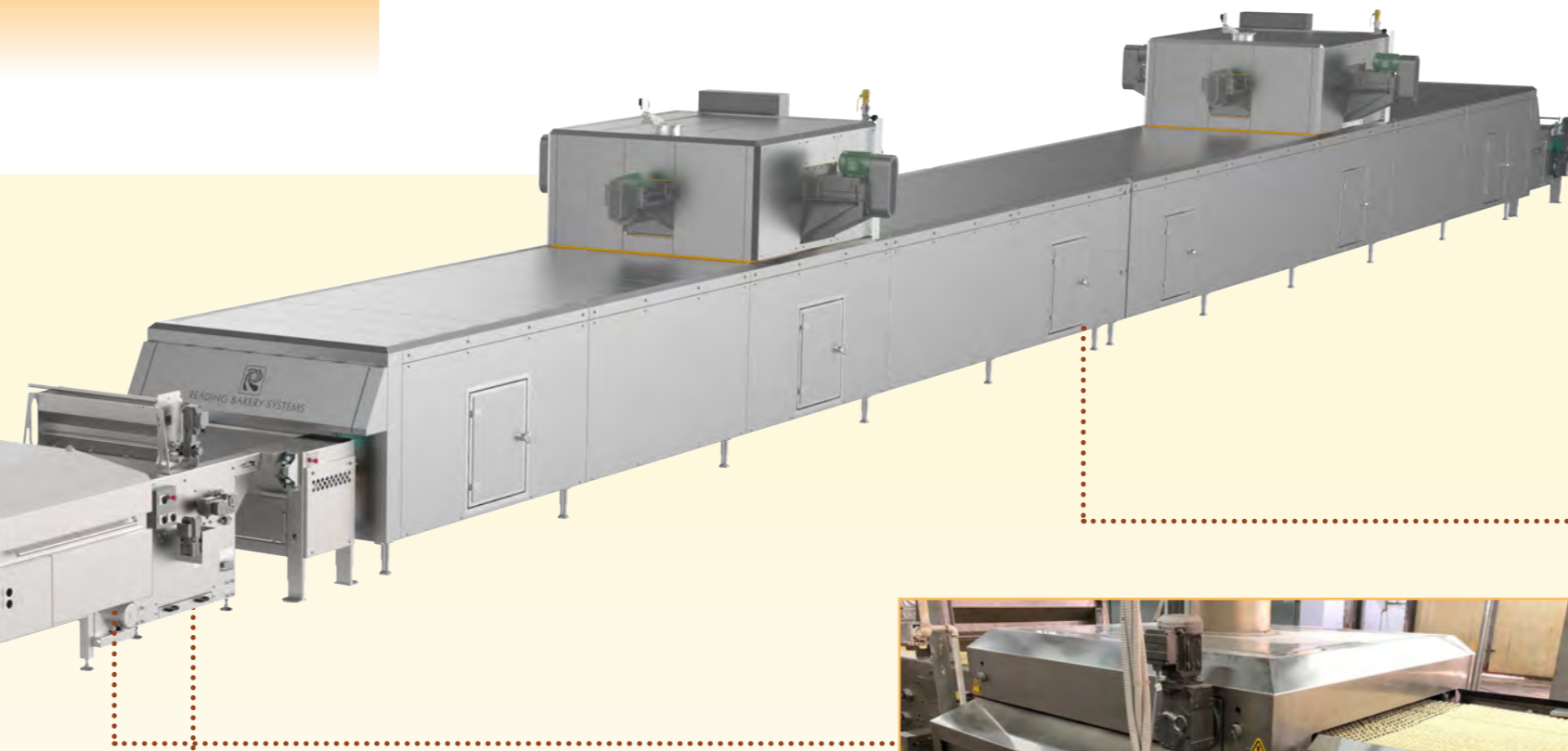
Guillotine Cutter >

The Guillotine Stick Cutter provides precision cutting and product separation before baking. The single blade design allows for consistent cuts across the width of the line, and is capable of speeds from 50 – 175 cuts per minute (cpm).



^ Omega V Topping Dispenser

The Omega V Topping Dispenser delivers salt, or other granular materials, at consistent rates across the line and over time. The heavy-duty design is manufactured in stainless steel for durable use in a demanding production environment.



^ Pretzel Cooker

The RBS “hot” Pretzel Cooker is the critical element in producing pretzels with an even appearance, superior taste, and shine. Operating at a temperature of 90°C and using a waterfall type application of caustic solution, it ensures consistent texture, pH, and color prior to the baking process. The temperature, caustic concentration, and dwell time are all controlled by the operator through simple controls on the machine.



^ SPECTRUM OVEN®

The single-pass SPECTRUM OVEN® with convection baking offers efficiency and balance, resulting in consistent product quality. The easy-to-use control system provides the operator with complete control of oven temperature, humidity, and product baking time.



Cracker Systems

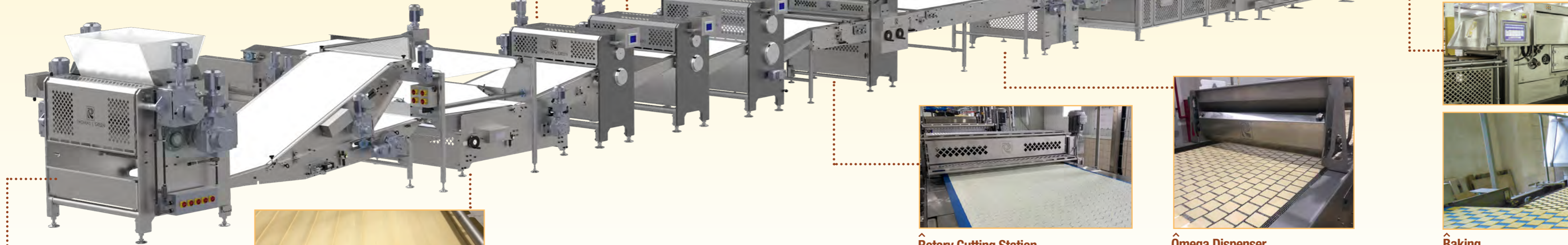
DURABLE, RELIABLE AND SANITARY THOMAS L. GREEN PRODUCTION SYSTEMS

SYSTEM OUTPUTS FROM 1000-4000 KG/HR



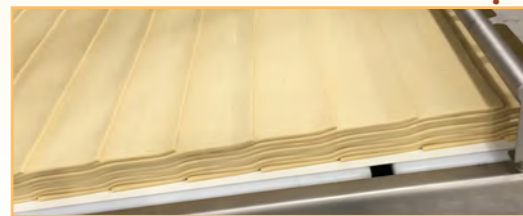
< Gauging Stations

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



< Sheeting

The process begins with a primary Sheeter producing a consistent sheet at a uniform density, which is critical to automated packaging systems after the oven.



< 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.



^ Rotary Cutting Station

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



^ Omega Dispenser

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



^ Baking

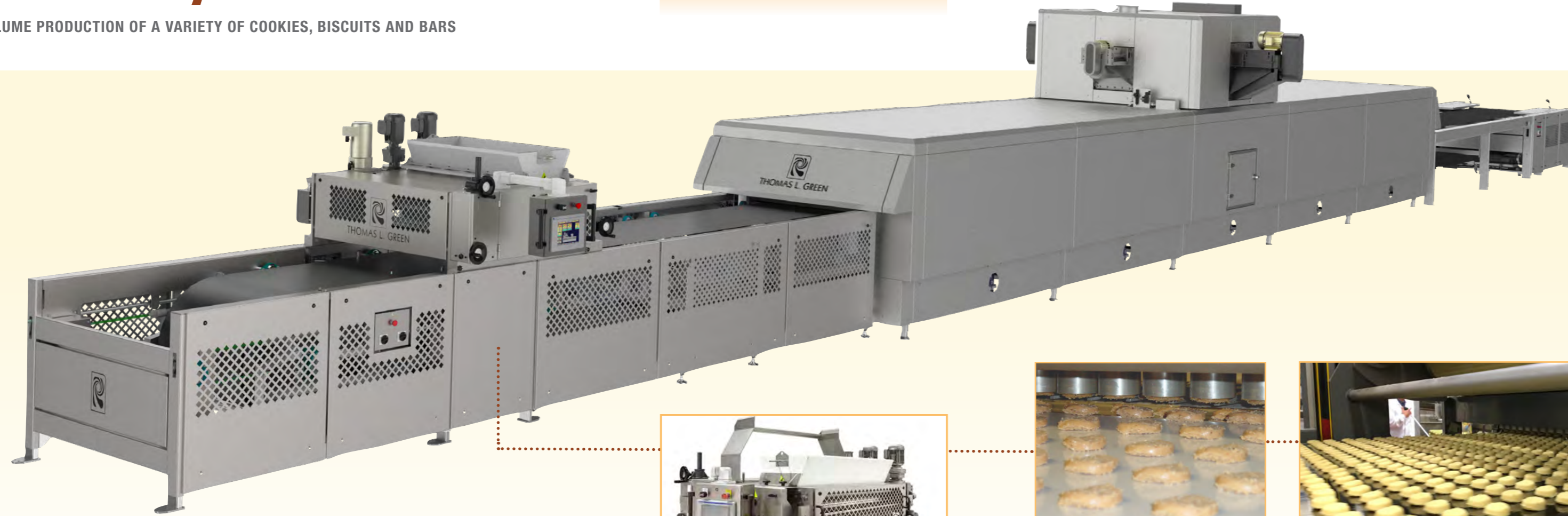
The PRISM OVEN is a powerful system for uniform baking of cracker products. Both Direct Gas-Fired and Convection oven modules are employed, providing consistent quality, color, taste and texture.



Wirecut Cookie Systems

EFFICIENT, HIGH VOLUME PRODUCTION OF A VARIETY OF COOKIES, BISCUITS AND BARS

SYSTEM OUTPUTS-
1M, 1.2M & 1.5M WIDE SYSTEMS FOR 300-3000 KG/HR



< Wirecut Machine

The GenesisPro Series Wirecut Machines create a variety of cookies, biscuits, bars and filled products. They are designed to provide piece-weight accuracy and reliability, and are best for non-descript shapes.

Baking >

The PRISM OVEN is a single-pass, flexible baking platform designed for balanced and consistent baking. For the most efficient baking, both Emithermic and Convection oven zones are employed. The operator has control over product moisture removal to maximize quality.



Depositor & Wirecut Systems

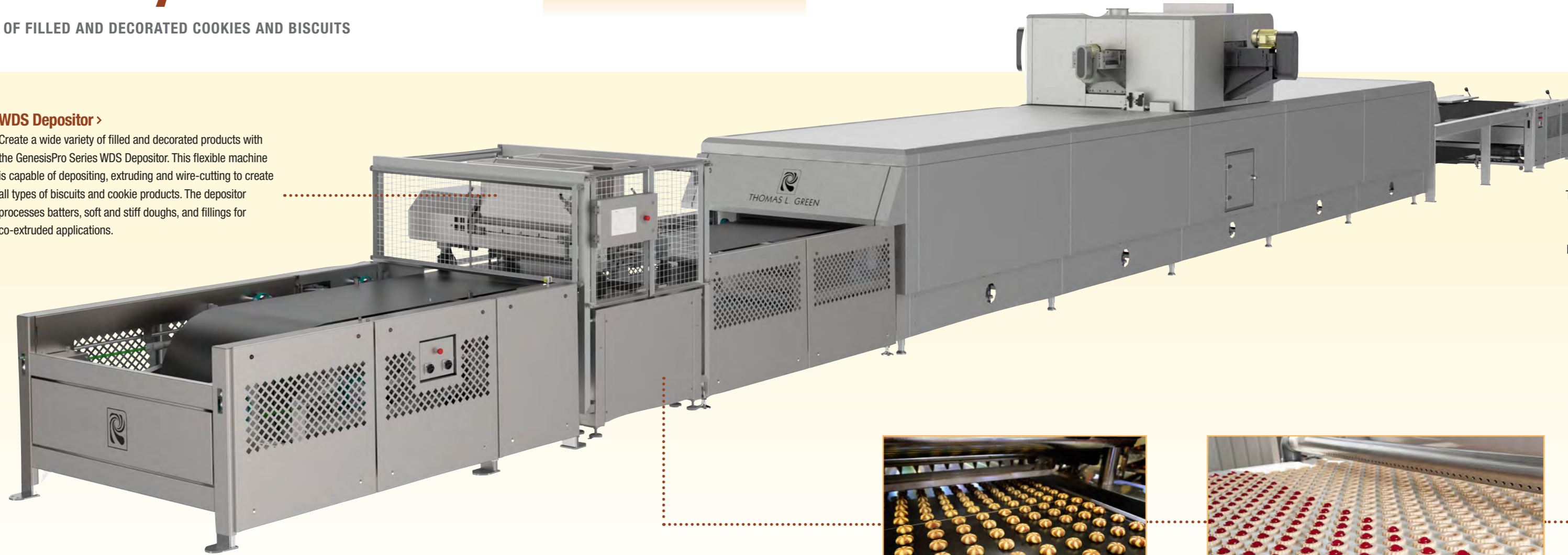
FLEXIBLE AND EFFICIENT PRODUCTION OF FILLED AND DECORATED COOKIES AND BISCUITS

SYSTEM OUTPUTS:
UP TO 1.2M WIDE FOR 300-1500 KG/HR



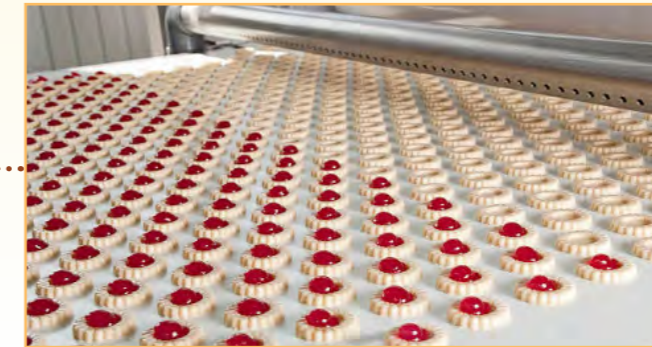
WDS Depositor >

Create a wide variety of filled and decorated products with the GenesisPro Series WDS Depositor. This flexible machine is capable of depositing, extruding and wire-cutting to create all types of biscuits and cookie products. The depositor processes batters, soft and stiff doughs, and fillings for co-extruded applications.



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. Both Emithermic and Convection oven zones are employed for a balanced and efficient bake. The operator has control over product moisture removal to maximize quality.



Rotary Moulded Biscuit Systems

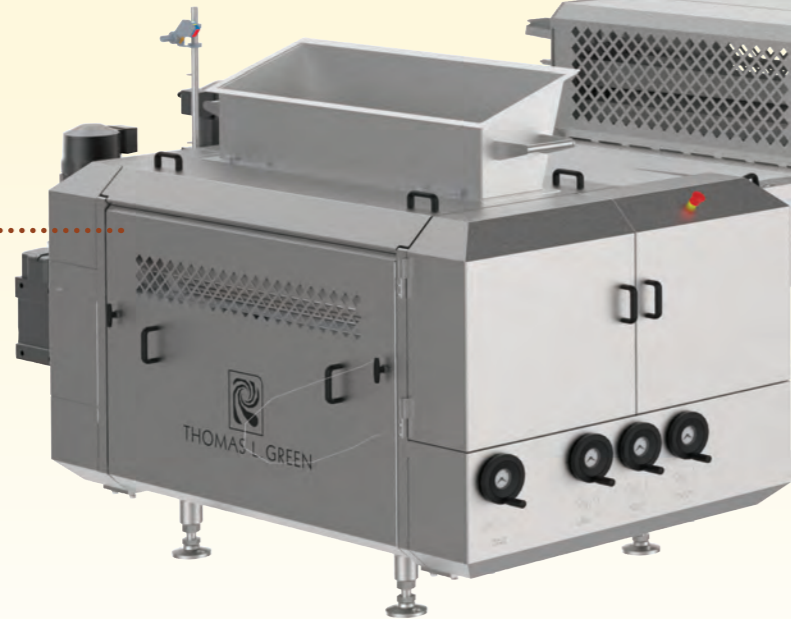
EFFICIENT, RELIABLE PRODUCTION OF ROTARY MOULDED COOKIES AND BISCUITS

SYSTEM OUTPUTS FROM 500-2500 KG/HR



Rotary Moulder >

The GenesisPro Series Rotary Moulder is an efficient and reliable machine for creating high definition, three-dimensional shapes. It is designed with food grade plastics for ease of sanitation and guarding that increases operator safety and enables visual inspection of components.



< Omega V Topping Dispenser

The Omega V Dispenser delivers sugar, sprinkles, or other granular materials, at consistent rates across the line and over time. The heavy-duty design is manufactured in stainless steel for durable use in a demanding production environment.

^ Omega VII Wet Wash Dispenser

The Omega VII Dispenser is used to apply a liquid topping to the top of a product, such as an egg wash or sugar solution. This adds a glossy sheen to improve product appearance, and helps toppings stick to the product.

Baking >

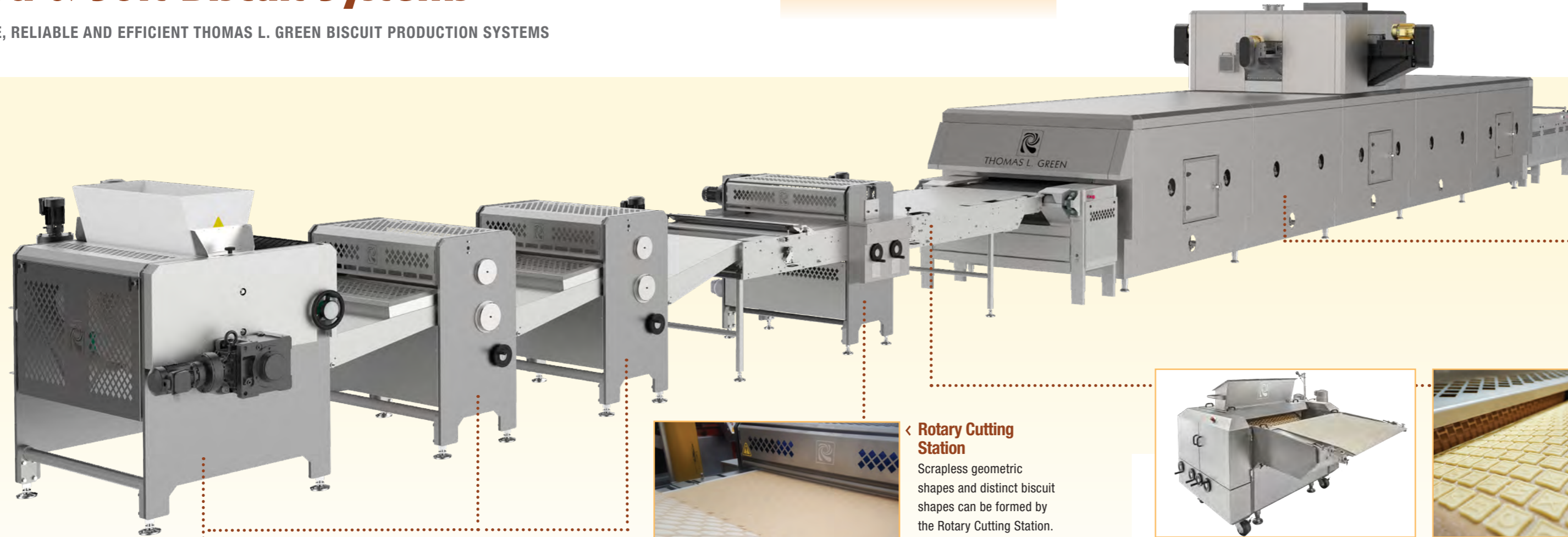
The PRISM OVEN is a single-pass, flexible baking platform designed for balanced and consistent baking of a wide variety of biscuit and cookie products. For moulded products, Convection or Direct Gas Fired oven zones can be used. The operator controls the product moisture removal to maximize quality.



Hard & 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.



< 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.



< Forming Equipment – Soft Biscuits

As an option, a Rotary Moulder can be added to this production line to produce high definition, three-dimensional biscuits and cookies.



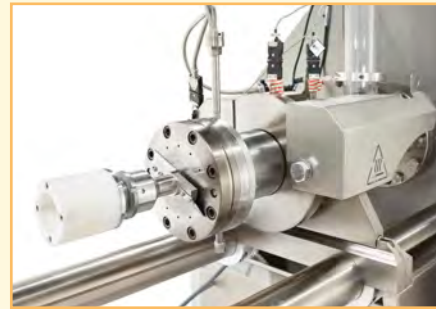
< Baking

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. Both Emithermic and Convection oven zones are employed for a balanced and efficient bake. The operator has control over product moisture removal to maximize quality.



Expanded Snack Systems

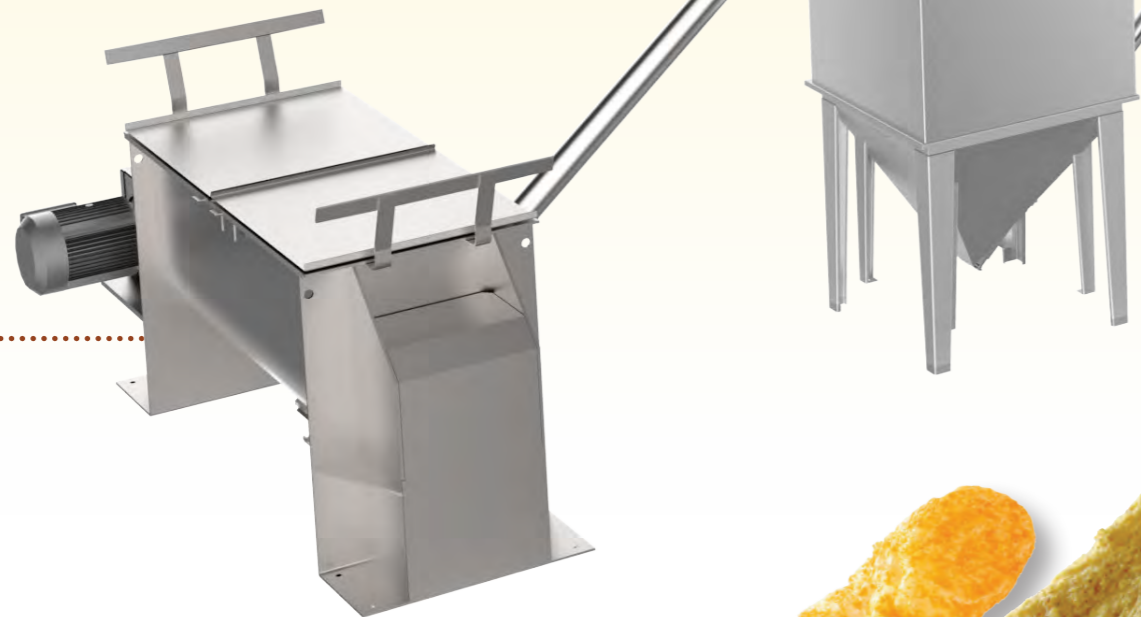
A SINGLE SCREW EXTRUSION SYSTEM FOR PRODUCING EXPANDED SNACKS FROM CORN, RICE AND OTHER CEREAL INGREDIENTS



High-Pressure Extruder

The High-Pressure Extruder mixes and cooks the raw ingredients to produce expanded shapes. The flexible design enables quick and easy changeover of the screws, barrels and product dies. This allows for a wide variety of formulations to produce interesting textures and flavors in different shapes, including curls, balls, ribbons, popcorn shapes, rings and more.

Surge Hopper



Dry Ingredient Blender



Slurry Applicator



Tumble Dryer

The Tumble Dryer reduces the moisture of the product to the proper, finished level, typically 1.5% to 4%. The dryer is designed for gentle tumbling action and allows for variation of residence time and temperature to control the exact process parameters required for different products.

Popped Snack Systems



RBS and Incomec work together to supply turnkey popped snack systems. These systems create healthy snacks that are popped, not fried, so they lack the oil, but burst with flavor.



< PELLEX C+ Processor Food Processor for popped chips

The Pellex C+ Processor is capable of converting micropellets and dry ingredients with high free starch levels such as broken rice, corn grits and potato-based materials into a crunchy and wavy chip.

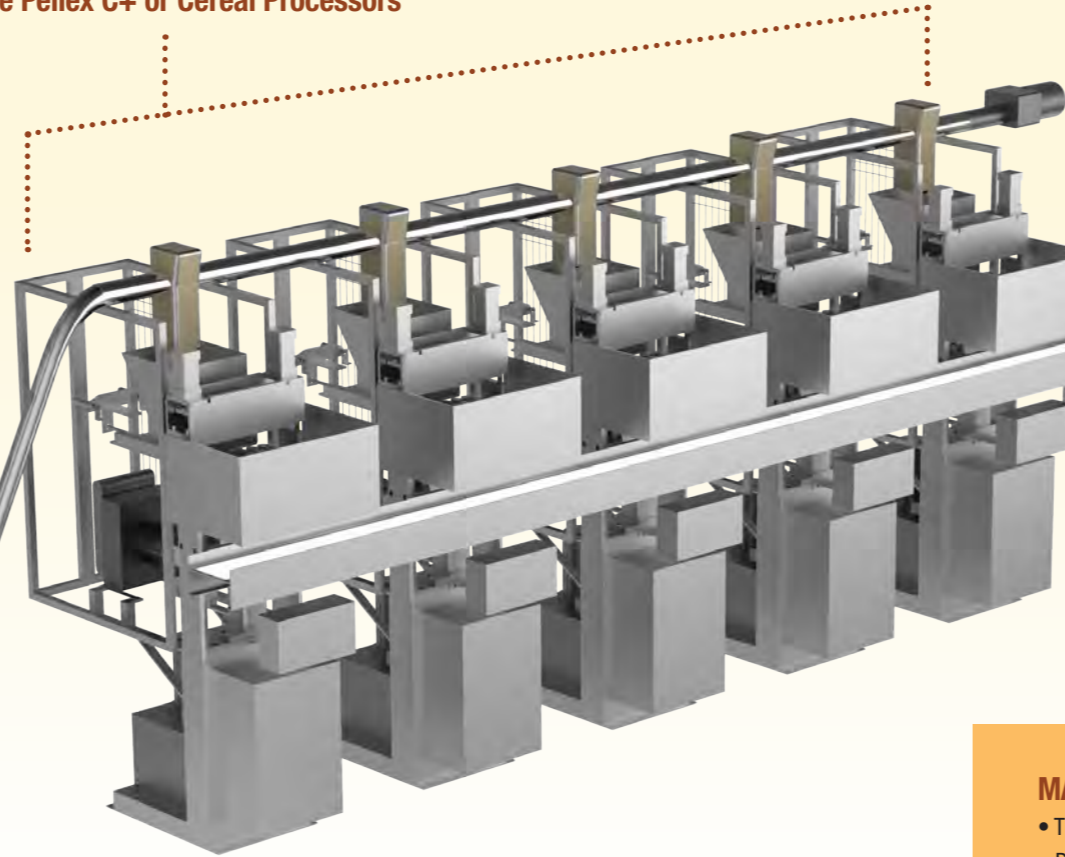
FLAVORING

A seasoning system can be added to apply a variety of oil-based slurries and dry seasonings onto the popped product.

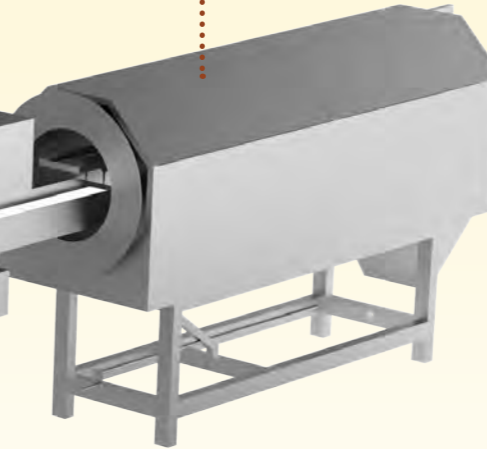
Ingredient Blender



The Pellex C+ or Cereal Processors

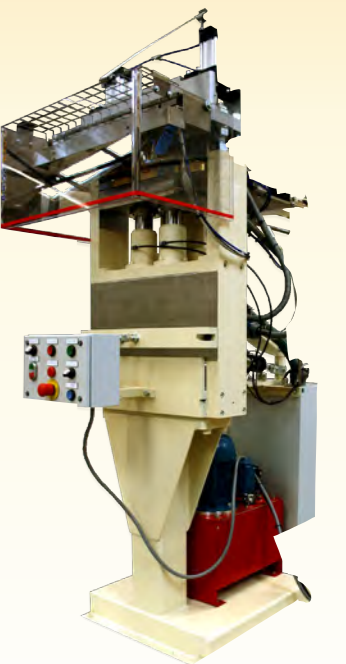


Cleaning Drum



Cerex Processor > Food Processor for puffed cakes

The Cerex grain processor is designed to convert untreated grain, pellets and cereal blends with high free starch levels into unique popped products. Traditional rice cakes, as well as biscuit and cracker-like products of varying sizes, can be produced with quick and simple changes of the forming dies.



MACHINE OUTPUT DEPENDS ON:

- The pellet or pellet-mix being processed
- Desired weight of the finished product
- Desired appearance of the finished product

Multiple elements affect baking time. An exact calculation of baking time can be made once the raw material and end-product have been defined and tested.



Control Systems

QUALITY IS BUILT IN.

Reading Bakery Systems provides custom designed control systems—from project management, design and construction, through installation and commissioning.

Safety and efficiency are paramount to your operation. RBS stays up to date on the latest technologies, safety standards and control specifications to provide steady, safe and efficient production.

- Allen Bradley or Siemens platforms
- Easy-to-use touchscreen interfaces
- Recipe control system for equipment runtime parameters
- Machines are pre-wired to local junction boxes
- Wiring schematics and cable schedules provided for all equipment
- PLC code provided to end user after start up
- Ethernet based controls network with the option for remote troubleshooting



Support Services

HERE FOR YOU—WHENEVER AND WHEREVER YOU NEED US.

Global Support, Locally

Keeping production lines running is vital to your business. That's why we pride ourselves on speedy response times. Our experienced parts and service technicians are available 24/7, 365 days a year to answer your questions, and maximize the performance of your production lines. We have technicians stationed across the world to provide you with timely local support when you need it most.



RBS eZone Parts & Service Portal

The **RBS eZone**, an interactive online portal, gives you anytime access to interactive 3D models of your equipment so you can easily select the parts you need and request quotes. It also allows you to see how to assemble and disassemble your machines and access machinery manuals, drawings, and schematics.



WORLDWIDE LOCATIONS

MIDDLE EAST/AFRICA

Technopark, 3rd Floor, Office 20
Jebel Ali Free Zone Area
Dubai, UAE

CHINA

No. 10, Huanghai 2nd Street
TEDA, Tianjin
China, 300457

SOUTH EAST ASIA

Block 5000 Ang Mo Kio Ave 5
#05-07 Techplace II
Singapore, 569870

LATIN AMERICA

Entrada 1 Via Cerritos
Urbanizacion Makaira Casa 38
Pereira, Colombia

EUROPE

Edisonweg 50
4207 HG Gorinchem
The Netherlands

EASTERN EUROPE

Tallinn, Str. Kentimanni, 18-44
Estonia

NORTH AMERICA

380 Old West Penn Avenue
Robesonia, Pennsylvania 19551
USA



READING BAKERY SYSTEMS

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

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