



# Reading Bakery Systems Reinvents Cracker Baking for the 21st Century

***The new Thomas L. Green Emithermic XE Oven offers a superior replacement for traditional DGF ovens.***

**F**or well over a hundred years, snack food manufacturers have been baking crackers in direct gas-fired (DGF) tunnel ovens. But like many century-old technologies, these oven designs cannot meet today's market demands for increased efficiency, sustainability, productivity, safety, and profitability.

Traditional DGF cracker ovens are difficult and costly to operate and maintain, and often produce an unevenly baked product. Operators must adjust and maintain a large number of ribbon burners to make sure the product is baked properly. To help today's bakeries move away from this energy-inefficient, labor-intensive process, Reading

Bakery Systems has developed a superior cracker-baking replacement for traditional DGF ovens – the Emithermic XE Oven.

## **Game-changing oven technology**

To replicate the baking of a DGF oven without any ribbon burners, the new Emithermic XE zone combines high radiant Thermatec ceiling panels, electric radiant heat elements, and convective heat inside the baking chamber. This hybrid oven





design delivers a more balanced, even heat to the product, and imparts the high radiant heat needed to develop cracker flavor and texture. It also cuts energy consumption and emissions, improves process control and baking performance, and simplifies cleaning and maintenance.

**Hands-off, recipe-driven control**

Traditional DGF ovens can have more than 30 control points, but the Emithermic XE Oven has just six. Instead, like all RBS ovens, the Emithermic XE

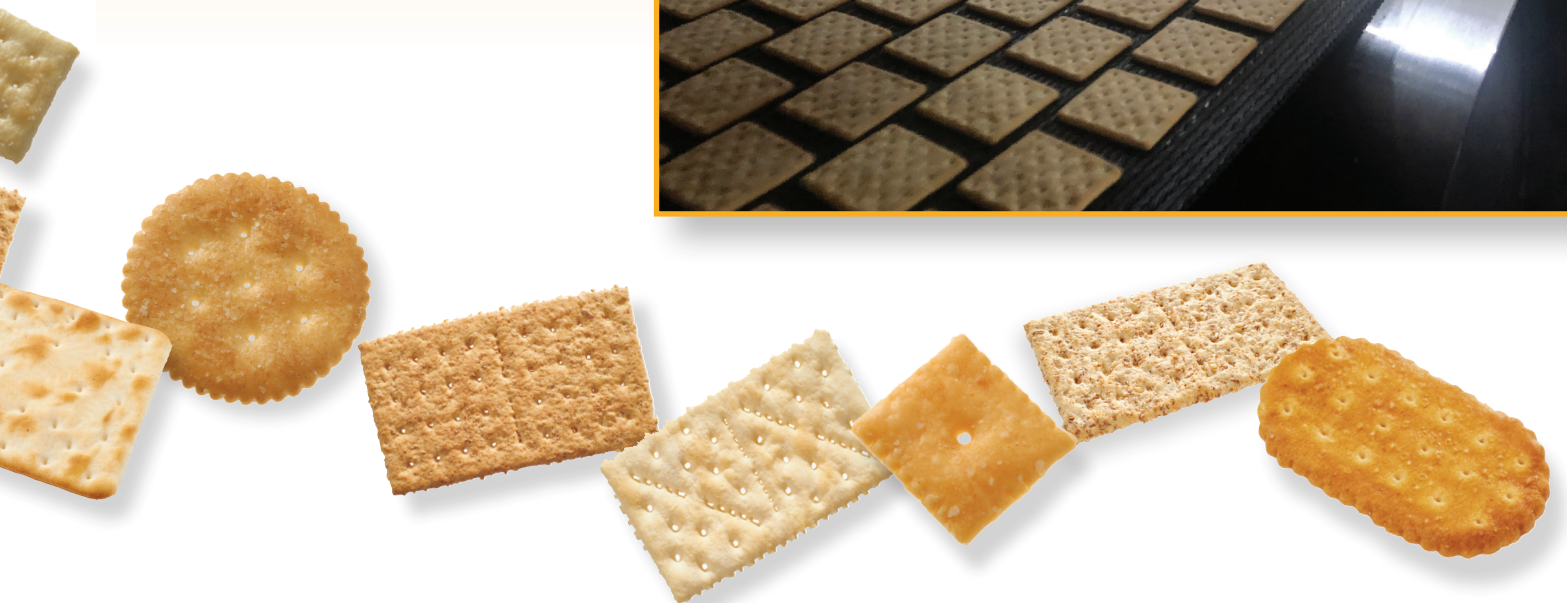
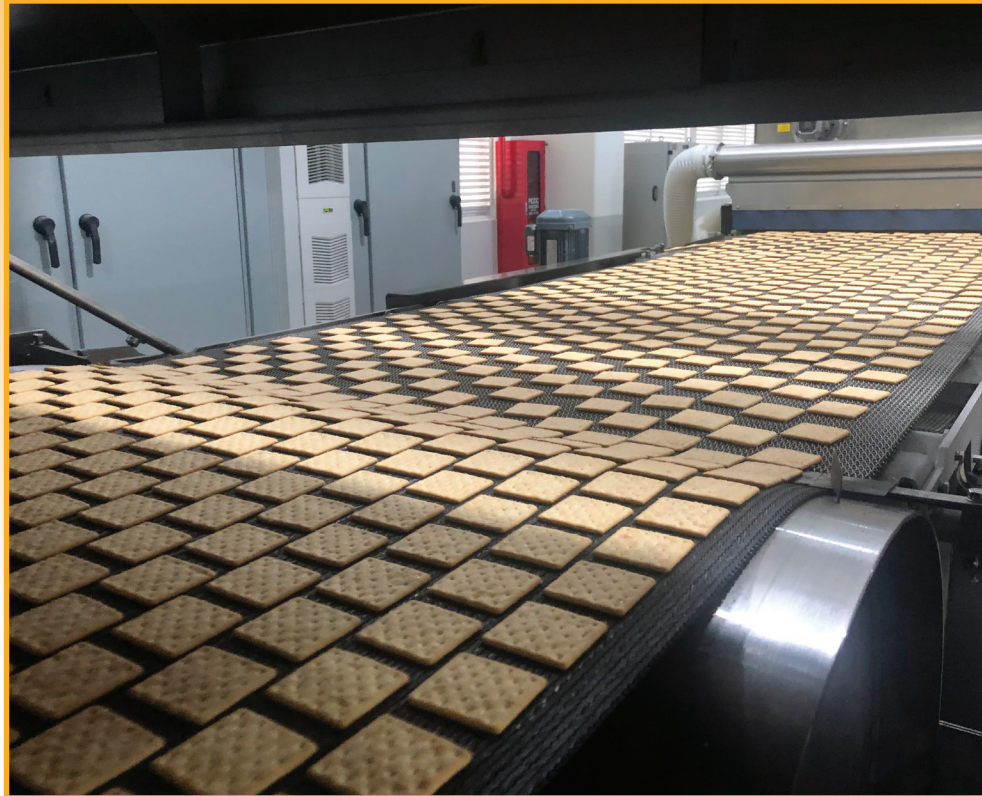
features RBSCoconnect, our Industry 4.0-aligned control system that eliminates operator guesswork.

Developed to simplify operations and lower labor requirements, RBSCoconnect automatically executes pre-set, recipe-driven controls. Bakers can configure and store settings for recipes that require either more humidity for product development, or less for product shape setting and drying. Operator requirements are minimal, allowing them to become experts quickly and giving them time to devote to other tasks.



## EMITHERMIC XE OVEN:

- Eliminates all ribbon burners.
- Improves product consistency.
- Simplifies cleaning and maintenance.
- Humidity-controlled product zone.
- Gas ovens easily convert to electric in the future.



RBSCoconnect also monitors production in real-time and manages a Closed Loop Oven Control System that captures data on product flow rates, temperatures, energy efficiency trends, and other Key Process Indicators. Ultimately, the system helps ensure a higher percentage of in-spec product and less waste on the line.

### Easier cleaning and maintenance

At lengths of up to 350 feet and with up to 290 burners, DGF tunnel ovens are notoriously time-

consuming to clean and maintain. Individual burners that need tuning or replacement result in costly unplanned downtime and lost productivity.

Cleaning and maintaining the Emithermic XE Oven is far simpler and easier. Operators have easy access to the baking chamber through large doors spaced every three meters apart on both sides of the oven.

RBSCoconnect further supports more cost-effective maintenance. Along with monitoring the product

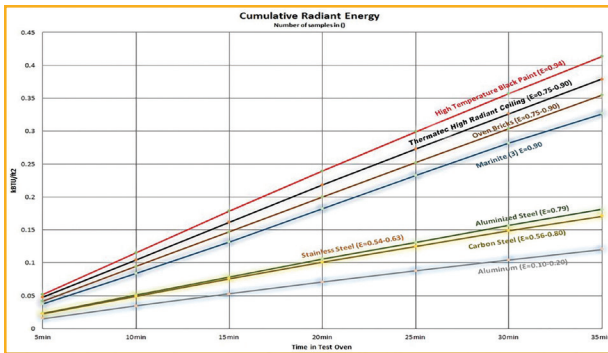


during baking, the control system also monitors the performance of oven blowers and motors, recording motor amps, speeds, runtimes, and more. With RBSConnect, operators are alerted to replace failing parts long before they result in costly line disruptions.

**Proven, future-proof technology**

In a very real sense, the Emithermic XE Oven design is the culmination of 130+ years of RBS oven and baking technology, and its components have been rigorously tested and used in a range of RBS ovens.

For example, RBS engineers used our proprietary SCORPION® 2 Profiling System to prove that our Thermatec Panels radiate more heat than traditional oven bricks or steel ceilings.



As the corresponding graph shows, RBS hybrid ovens with Thermatec Panels confirm this technology is a great alternative to traditional DGF ovens, but without the heavy maintenance demands of DGF burners, and the potential food safety risks from the bricks.

RBS also developed the Emithermic XE Oven with sustainability in mind. After all, manufacturers installing the new oven will be using it for the next 20-40 years. Accordingly, the Emithermic XE Oven is available with a penthouse that can be powered by natural gas or electricity. Manufacturers that opt for the gas-heated version today can easily convert the oven to an all-electric in the future.

**Visit RBS to see for yourself**

While our new Emithermic XE Oven represents a ground-breaking advance in cracker baking, RBS knows that snack food manufacturers using traditional DGF ovens may be skeptical. To help allay their concerns and demonstrate the effectiveness of this new technology, an Emithermic XE Oven has been installed in the RBS Science & Innovation Center for trial runs to prove that we can bake their cracker product on an Emithermic XE Oven.

**We want everyone in the industry to see (and taste) the power and potential of this new technology.**

**To learn more about the new RBS Emithermic XE Oven, please visit [www.readingbakery.com](http://www.readingbakery.com), call +01 610-693-5816.**

