SCIENCE AND INNOVATION CENTER

Perfecting the art and science of snack food products and processes

READING BAKERY SYSTEMS

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

Create Experiment

A real-world environment.

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.

Design Explore Innovate

A unique place to communicate, collaborate and innovate.

If you were to tour our Science & Innovation Center in Pennsylvania while work was in progress, you'd find it hard to tell who works for which company – Reading Bakery Systems or one of our customers.

That's because at this 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, so that you leave with 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. In addition, you will have access to the Reading Thermal SCORPION® 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.

Collaborate Analyze Discover Design

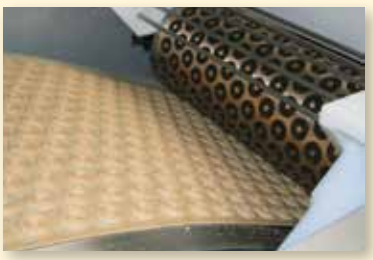
Mixing Equipment

Doughs can be mixed with a Shaffer horizontal batch mixer, a Hobart planetary vertical bowl mixer, or a Collette high speed/high shear mixer. In addition, all Exact Continuous Mixer models are available for demonstration and testing. These are used for a wide variety of doughs for bread snacks, fabricated potato and corn chips, pizza, pretzels, bread and buns, tortillas and others. Each Exact Continuous Mixing System is complemented with highly accurate Loss-In-Weight gravimetric dry feeders and mass flow liquid feed systems, in order to consistently deliver ingredients and validate the process for scale-up.

Line outputs are approximately 20-90 kg/ hour and are accommodated by either continuous or batch mixing.

Forming Equipment

A full range of machinery is available to form products for baking. A 600 mm wide Thomas L. Green sheeting line consists of a 3-Roll and 4-Roll Primary Sheeter, 2 Gauging Stations, and a 2-station Rotary Cutter. Simple sheeted products can be made on a 2-Roll Sheeter. A Ridged-Roll 2-Roll Sheeter is also available. The entire sheeting line is controlled from a touch screen Operator Interface Terminal. In addition, Low-Pressure Extrusion equipment and Filled Stick Extrusion Systems are available to create a variety of sticks, shaped snacks and novel combinations. Topping equipment is available for sprinkling both granular materials (salt, seeds) and powder materials (powdered seasonings). For traditional cookie products, a Thomas L. Green Rotary Molder and Wirecut Machines are on hand for testing and demonstration.



Test Produce Expedite Profit

Baking & Drying Equipment

For flexibility and easy product changeovers, we offer a 600 mm wide PRISM Oven that is capable of baking a wide variety of products. The oven features convective heating, radiant heating, and OIT-controlled combinations that use both. The 9.75 m long x 600 mm wide oven utilizes an open mesh band and consists of two zones with many inspection doors.

After baking, the product is transferred into a single zone, 4.8 m long x 600 mm wide forced convection dryer. The PRISM Oven and Dryer are individually controlled using a remote OIT control station.

For measuring and recording the type of heat required to bake a product, visitors to the Science & Innovation Center have access to the Reading Thermal SCORPION® Data Logging Measurement System. The SCORPION® system senses and records conditions in processing ovens, such as airflow, humidity, heat flux and temperature. It's an excellent tool for analyzing the product baking curve and useful for scaling up products from the Innovation Center to the conditions of a full-scale production system.

Other Available Equipment

Ultrasonic Guillotine Cutters and Pretzel Cookers are available, as well as a wide variety of extrusion and cutting dies.

Convenient Airports

Philadelphia International (PHL)
129 km (80 miles)

Newark International (EWR)
193 km (120 miles)

Lehigh Valley International (ABE)
81 km (50 miles)

Harrisburg International (MDT)
97 km (60 miles)

John F. Kennedy International (JFK)
242 km (150 miles)

Baltimore-Washington International (BWI)
193 km (120 miles)

Sample Packaging – All finished products can be either bulk packaged or hand-filled/sealed in pre-formed bags and shipped to your location.

Technical Staff – Our technical staff offers a wealth of expertise in manufacturing, research and development, quality assurance, equipment design, production management and process development.

Engineering Staff – Our engineering staff members are experienced in all areas of the baking industry and can provide on-site assistance in die design and custom equipment development.

Machine Shop/Fabrication Services – A fully-equipped manufacturing facility is available for machinery modifications required prior to, or during, trials. Services are available during first and second shifts.

Ingredients – You may supply your own ingredients or use RBS-supplied ingredients.

Center Availability – The Science & Innovation Center can be rented on a full-day or weekly basis. Rental charges include the time to set up and prepare equipment for trials. Contact us for rates and availability.

Location – The Science & Innovation Center is located in Sinking Spring, Pennsylvania, just a few miles from our corporate headquarters in Robesonia, Pennsylvania (near Reading, PA), approximately 113 km (70 miles) from Philadelphia.

Hours of Operation – 8:00 a.m. to 4:00 p.m. Monday through Friday. Overtime can be arranged for an additional charge.

A Seal of Confidence – As a licensed food processing facility in the State of Pennsylvania, our Science & Innovation Center follows the same sanitation and food-safety practices that you use in your own manufacturing plants.

Contact – Ken Zvoncheck, Director, Science & Innovation Center
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