

EXACT MIXING

Leaders in Continuous Mixing solutions for over 30 years.



EXACT MIXING

BY READING BAKERY SYSTEMS

Exact Mixer Models

EX EXACT EX MIXER



Gentle kneading for wheat-based products

The EX Continuous Mixer is ideal for wheat-based products and all but the lowest viscosity powder/liquid mixtures. Low moisture, stiff products are easily mixed. Dough is gently mixed and developed without generating excessive heat.



HDX EXACT HDX MIXER



High development mixing for ultra-high absorption doughs

The HDX or High Development Continuous Mixer is designed to first mix all ingredients into a uniform mass with a twin screw mixer. In a separate section, the dough is kneaded to the proper development level with a single screw mixer. This mixer is designed specifically to manufacture highly developed dough at low temperatures. The HDX Mixer is ideal for products such as buns, breads, English muffins and similar products.



MX EXACT MX MIXER



Versatile mixing for a wide variety of products requiring high energy or gentle mixing action

The MX Continuous Mixer is our most versatile mixer and is used to mix a wide range of products including snacks, plant-based proteins, granola, batters, and icings. Its adaptable shaft configuration make it also well suited for gentle mixing or combining ingredients together with little or no shear.



LDX EXACT LDX MIXER



Two-stage mixing for products that benefit from creme up and final mixing stages

The LDX Continuous Mixer combines all minor ingredients and a portion of the required flour in the first mixing stage. In this stage, special mixing elements cut the fat into the other ingredients. The remaining flour is added to create the final dough. This mixer is ideal for most types of cookies or any application where ingredients are blended before flour is added.



FX EXACT FX MIXER



High speed lofting for low moisture, hygroscopic powder type mixtures

The FX Continuous Mixer is designed to distribute small amounts of moisture evenly into large amounts of powder. This is accomplished by lifting the powder into atomized liquids. This mixer is ideal for hygroscopic powders such as potato flakes used to make fabricated potato chips or any other low moisture mixtures.





Continuous Mixing equipment and expertise for perfect product every time.

Whatever you make, Exact Mixing has the equipment, experience and expertise to help you reduce labor, cut costs, improve consistency and simplify your process with Continuous Mixing. With over 100 Continuous Mixing installations to date, no one has solved more complex mixing challenges for customers across the globe.

We offer a variety of innovative, high-quality continuous mixer models for a variety of products. We also help solve our customers' mixing challenges with expert engineering support and all the advantages of our Science & Innovation Center. At this fully licensed food production facility, you can perfect your process using the most advanced Continuous Mixing technology available today.

Benefits of Continuous Mixing:

- Consistent finished product weight, size and texture
- Eliminates variables due to batch process
- Even hydration of dough
- Better integration of minor ingredients
- Quick and easy changeovers
- Easy to sanitize, maintain, clean and inspect equipment
- Consistent, steady supply of dough
- Eliminates errors
- Requires little training to operate
- Excellent traceability
- Eliminates chance of contamination
- Simplifies downstream dough handling equipment
- Operated with less labor
- Reduced energy requirements

Continuous Mixing solutions for:

- Cookies
- Breads, Buns and Rolls
- Sweet Goods
- Bakery Goods
- Snacks
- Crisps
- Pet Treats
- Plant-based Proteins
- Icings
- Fillings
- Batters
- Bars
- Crackers



The Continuous Mixing Process

Improving process efficiency and product consistency, Continuous Mixing offers a consistent, uniform dough stream to your production line at the same rate that it is being used. A complete Exact Mixing Continuous Mixing System includes the mixer, blender, materials handling and ingredients metering, as well as the control system that monitors and distributes product between them.

Dry Materials Handling

Dry ingredients can be introduced to the system in a number of ways. The most common methods include ingredients from a silo, a bulk bag, or a dumping station for smaller containers. Ingredient additions can be completely automated, manual or somewhere in between.

Dry Materials Blending

Dry ingredients are often blended in advance to improve consistency, add system flexibility and reduce costs. Flour may or may not pass through the blender depending upon the usage rate. If the flour is delivered directly to the mixer, only the minor ingredients pass through the blender. Micro ingredients are sometimes added directly to the blender to ensure their proper distribution.

Dry Materials Receiving

Dry materials from the materials blending station and from outdoor silos are transferred into the mixing area to the receivers above the dry materials feeders.

Ingredients Metering

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

Continuous Mixing

Continuous Mixing is the process of continuously metering ingredients directly into the mixing chamber and as a result, generating a continuous stream of mixed product at the exit of the mixer. The mixing may be done in stages to ensure all ingredients are incorporated properly. All Exact Mixers are designed for versatility, ease of cleaning, ease of maintenance and reliability.

Operator Interface

Exact Mixers have seamless, integrated controls for mixing and bulk delivery. 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, and all properties are recorded for future review.

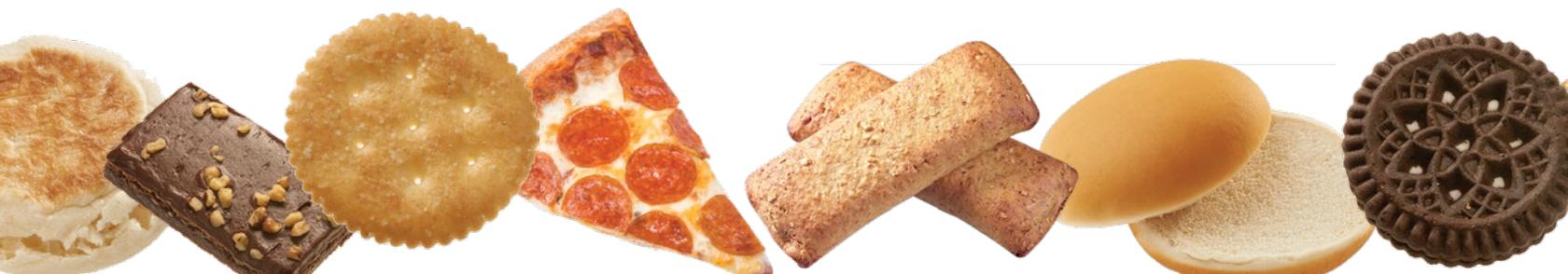


Dry materials blending

Dry materials handling



Operator interface





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Dry materials receiving

Dry ingredients metering

Liquid ingredients metering

Continuous mixer





RBS SCIENCE & INNOVATION CENTER:

See your product mixed and made first-hand



Our 6-step process

Staffed with experienced experts, and outfitted with a complete process line for making baked snacks and other food products, our Science & Innovation Center offers a truly unique value to our customers.

A dedicated mixing area features a wide range of mixing technologies. The Exact Mixing line of continuous mixers offers Single screw (EX Mixer), Twin screw (MX Mixer), High shear (FX Mixer), High development (HDX Mixer) and Multi-stage (LDX Mixer) technologies in a continuously mixed, automated process. Various size mixers are available for Science & Innovation Center work or in-plant demonstrations.

Support systems include an automated bulk handling system, a horizontal dry blender, gravimetric dry feeders, and mass flow liquid systems.

Here you'll find 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 mixing and manufacturing process.

Our 6-step process is designed to educate and demonstrate the many benefits of Continuous Mixing, using your ingredients and know-how at a pilot-scale level. Once the process is demonstrated to your satisfaction a continuous mixing system can be quoted to meet your requirements and budget.

- 1 **ANSWER** your initial questions
- 2 **UNDERSTAND** your requirements
- 3 **TEST & EVALUATE** Continuous Mixing solutions at the RBS Science & Innovation Center
- 4 **AGREE** on scope for cost analysis
- 5 **DEMONSTRATE** process at your facility
- 6 **TOUR** current customer installation



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