

# Mixing in two stages

Exact Mixing by Reading Bakery Systems has implemented more than 100 continuous mixing installations worldwide. One of the latest developments is the HDX “high development mixer”, developed specifically to process doughs at low temperatures.



++ The HDX mixing system, adapted to manufacture buns – a video of the machine can be seen here: [www.exactmixing.com/quick-video-clips.html](http://www.exactmixing.com/quick-video-clips.html)

materials to yield a homogeneous mixture. The resulting dough is then kneaded by a single shaft in the second section to form a gluten network. The mixer is available in various models and is used in lines made by the affiliated company AMF for toast, buns, bread, English muffins and similar products. Feed and metering systems for both dry and liquid raw materials, including temperature control, are supplied with the system. Four

+ The “high development mixer” is a further development of Reading’s mixer family originally developed for snack, cracker and biscuit/cookie lines. The mixer operates in two stages. Two shafts in the first stage blend the raw

models are currently on the market, the HDX 50 dough throughputs up to 2500 kg/h, the HDX 80 for up to 4000 kg/h, the HDX 120 for up to 7000 kg/h and finally the HDX 200 for up to 10,000 kg of dough per hour. +++

## About continuous mixing

### Seven questions to Jim Warren, Vice-President of Exact Mixing at Reading Bakery Systems

+ **bbi:** Do you have any experience with the continuous mixing of hard-crust rolls or baguette rolls?

+ **Warren:** Yes, we have spent the last few years researching and developing this technology.

+ **bbi:** You talk about more than 100 continuous mixing installations worldwide – in which kind of industry?

+ **Warren:** Our applications are very varied. All those mentioned are applications, and we also mix dough for pizza, sweet goods, fillings, crisps and pet foods. We started 25 years ago with stiffer snack doughs, such as pretzels and bagels. Over time we have added applications with softer doughs and higher hydration levels. Our most recent new applications have been hamburger buns, rolls and muffins.

+ **bbi:** Can you please explain the way you are mixing, in what steps, with what kind of tools in what section and are there modifications possible regarding different doughs?

+ **Warren:** No mixer can make every product, so we offer 5 types of mixer designs to make a full range of products.



Each mixer is available in many sizes. Within each type of mixer, the shaft can be configured in different ways.

+ **bbi:** Is it possible for a relaxing phase between the mixing and kneading phases, and how long can it be?

+ **Warren:** It is certainly possible, and time is only a question of the floor space available.

We offer fully automated systems for resting between the mixing stages.

+ **bbi:** Can you please explain the cleaning process?

+ **Warren:** CIP is possible, or a fully opening design allows for direct high pressure wash-down.

+ **bbi:** Can you offer a complete process equipment from silo, metering of dry and liquid materials and pre-blending to dough discharge?

+ **Warren:** Yes, we can offer from silo to discharge.

+ **bbi:** What is the difference between your HDX-Mixer and Zeppelin-Reimelt’s Codos-Kneader?

+ **Warren:** We remain focused on our designs, which are created based on experience and our relationship with major food manufacturers and bakers. We do not consider our competitor’s equipment as we believe we offer the most advanced equipment available.

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