

## **New Baking Technologies: dough mixing and dough forming systems**

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**Introduction.** The Bakery and Confectionery is one of the largest Union funds in terms of assets. Faced with a growing variety of products and increasing pressure to control costs, success in the bakery industry depends on flexible and highly cost-effective production. Seamless interaction of production processes in the bakery industry is crucial – and integrated automation systems provide the perfect answer.

Baker Perkins dough mixing and dough forming systems for high-output tin and pan bread plant bakeries are designed in collaboration with bakers to maximize quality and minimize cost. Gentle dough handling arising from innovative design, combined with the latest control technology, produces bread at new levels of consistency and excellence.

This generation of machinery is the result of continued collaboration with bakers, backed by Baker Perkins' process knowledge based on a century of involvement with the industry. Gentle treatment is identified by bakery industry research into dough rheology to be a significant contributor to superior product excellence and value. Throughout the world, experience in tough production environments shows that the objectives of improved consistent quality, reduced ingredient costs and a clean label can all be achieved simultaneously.

Baker Perkins' range of integrated dough mixing and forming systems has been well proven in demanding, high-output applications around the world. Precise mixing, accurate weight control and gentle dough handling all contribute to performance that drives bread quality up and production costs down. Systems comprise a number of unit machines linked together by an integrated control system, but every unit may be installed individually on existing lines.

Gentle handling throughout the process minimizes stress and damage to the dough, enabling it to optimise prover performance. The resulting increases in volume and cell count of up to 10% give excellent crumb structure and a fine, even texture. The shape, colour and resilience of all the slices are enhanced making loaves ideal for premium and sandwich bread.

At the Sachsenback exhibition in Dresden, Germany, the WP BAKERYGROUP presented several innovative industrial baking technology highlights for the hygienic and energy-efficient production of high quality baked goods.

The new WP Intelligent Energy Control (IEC) was seen in operation. The new innovation integrated into the oven control of Rototherm bake efficiency, minimizing energy waste by itself. This reduces energy waste significantly, e.g., as the oven automatically goes into standby mode within a preset idle time and switches off the burner or heater.

**Conclusions.** The new WP labels CleanTec, Green Energy, Smart Control and Baking Quality show the individual standard of quality of the group with their machines and systems. The advantage for the exhibition visitors: outstanding features are recognizable immediately at a glance. CleanTec stands for high hygiene, Green Energy for minimal energy consumption at maximum efficiency, Smart Control for simple, uniform control systems and Baking Quality for baking with special quality.

### **References:**

1. [www.alliedbake.com/koenig/koenig.htm](http://www.alliedbake.com/koenig/koenig.htm)
2. <http://bakersprideco.com/innovative-baking-technology>