

Crossing frontiers

REAL TECHNOLOGICAL NOVELTIES ARE RARE IN THE BAKED GOODS SECTOR, BUT IF ONE IS INTRODUCED, IT CAN AFTER ALL BE QUITE BAFFLING

+ At Anuga FoodTec fair in Cologne in April, Snack Academy introduced small baked goods that were deep fried instead of baked. The result is sensational, particularly if the process is used for par-baked goods.

The first practical test series has been concluded, the participating bakers are enthusiastic, the results stunning. Focaccia, small baked goods, even baguettes can be deep fried in a fat bath and amazingly they do not have significantly more fat content than common products made in traditional ovens. You will not get greasy fingers when touching the products, and they taste juicy and savory without any fat aroma. Compared to traditional oven baking, the baking time is cut by almost 50% which is advantageous for the moisture content of the crumb. After bake-off, such products should be consumed as soon as possible because the moisture in the crumb will migrate over time and thus soften the crust. This process, developed by Ulrich Gerhardt, is ideal for par-baked products. The products coming out of the deep fat fryer have a high moisture content, they do not chip off, remain juicy for a long time, even if packed, and can be baked off in the classic in-store baking oven to yield crunchy products. The rolls will then be still as great as rolls coming fresh from a traditional oven.

The secret is the pre-mix which – whether with or without E-numbers – makes up 10 or 6-7% of the technological basis of the product. The dough made with this pre-mix contains more than 10% rye, if desired. Dough hydration is 67%. With only a little fantasy, a broad variety of Mediterranean-style baked goods can be produced: Focaccia, small baked goods, baguettes, supplemented with dried fruits, olives, herbs and even sweet variations can be created.

When made in a direct dough process, they need three hours proofing time. When using the indirect process, they can spend the night in the retarder proofing.

The crumb structure can be controlled from rustic-coarse to very fine. The latter requires emulsifiers. Fat pick-up can also be controlled by the pre-mix. Incidentally, the entire pre-mix is egg-free. During deep frying it is only the physical forces of the water in the dough that are acting on the products. Even sweet variations will not be associated with doughnut-type products.

The process is really simple. Dough pieces are produced on the same classical equipment also used for the production of rolls. However, the dough dividing is done without any oil. The dough pieces are then deep fried in equipment in which the products can be completely submerged. A convenient way was shown at Anuga FoodTec: MB 1200 Master – equipment made by Opelka, Remseck, Germany – had been equipped with a loading system, feed belt and discharge



++ figure 1



++ figure 2



++ figure 3

++ figure 1
Cut fried roll

++ figure 2
Rolls in the frying pan

++ figure 3
Fried rolls

unit. In Cologne the fried products were presented as par-baked goods, and for that the fried rolls were stored in a freezer made by Miwe Michael Wenz GmbH, Arnstein, Germany, and upon request baked off in an aero in-store baking oven by Miwe. +++

3-DECK TUNNEL OVEN FTM WITH **BBB™**



MECATHERM Automatic MIXED production line hearth

BLOC HP II



MECATHERM innovates on its automatic production lines for bakery products, fresh or frozen, baked or par-baked on trays – standard line 600 x 800, 2500 baguettes/h; lines MEGALINE I & II, 5000 to 7500 baguettes/h – or on hearth, MECATHERM adds to its equipment range a new make-up equipment for highly hydrated dough, the **HPII**, and the new oven **FTM** with Bottom Bake Booster, patented **BBB™** concept, offering a great flexibility in use. Integrating this oven in an automatic line allows the mixed production on hearth and on trays with storing and automatic unstoring of the proofing supports and baking trays.

The new bloc HPII is an automatic make-up equipment for dividing, pre-proofing, moulding and automatic depositing of highly hydrated dough. The divider includes a pneumatic device to process dough with floor time. The bloc can deposit baguettes and petits pains on convoluted and/or flat trays.

MEGALINE I + II



MECATHERM



Among the numerous technical advantages of the oven FTM, the following distinguish :

- control of the crust thickness;
- production of par-baked products on hearth with very short par-baking times which means a high residual humidity inside of the product, without any risk of collapsing, leading to an increased shelf life;
- production of sandwich rolls with a very thin crust on the top and more solid at the sole;
- bottom crust of the product without marking
- product with a very open internal structure
- fast and flexible reaction time when changing the baking parameters.

/ trays or trays / hearth with 3-DECK TUNNEL OVEN FTM

This bloc is designed for the production of 3750 baguettes/h (full sized) or portioned 1/2; 1/3; 1/4; 1/5; 1/6 obtained by portioning. The weight range goes from 1,20 oz to 2 pounds of dough. For high production capacity of short loaves, the HPII is equipped with a new device for tilting and introducing of the dough pieces into the laminator.

The new FTM oven is the first oven with Bottom Bake Booster™ **BBB™** which bakes the products with differential heat exchange at the bottom and on the top: the oven bakes the bottom of the bread by convection and the top and the sides of the bread by radiant heat.

The oven is designed to produce both, on hearth and on trays and on files, fully baked or par-baked, fresh or frozen products.

BBB™ BAKING CONCEPT OF ONE OVEN DECK

