

Fully automatic bread slicer in modular construction

THE REGO HERLITZIUS GMBH, HAAN, GERMANY, HAS DEVELOPED A NEW FULLY AUTOMATIC SLICED BREAD MACHINE DESIGNED TO SET NEW STANDARDS IN STRIP BREAD SLICING AND IN THE SUBSEQUENT PORTIONING OF BREAD PACKS



++ figure 1

++ figure 1

The newly developed fully automatic plant is constructed in various modules and can be fitted with an optional sterilizing tunnel

© Rego Herlitzius

+ SBA 3000 is the name of the new fully automatic bread slicer developed by the engineers of the Rego Herlitzius GmbH, Haan, Rhineland. The construction of the plant is modular.

Module 1 is the bread magazine. It can be designed in different lengths ranging from 1,000 to 3,000 mm. Loading the bread magazine is optionally by hand or fully automatic. The bread strips are then fed into the plant automatically.

Module 2 contains optionally a conventional infeed or an integral sterilizing tunnel that sterilizes the bread strips before slicing. Sterilizing takes place using an infrared technique whereby its carbon IR radiators, operating in the short or medium-wave spectrum, achieve a germicidal temperature on the bread surface within 5 sec without penetrating deeply into the bread. An intelligent controller regulates the modules according to a recipe-dependent surface temperature measured directly from the bread surface at the tunnel exit.

The company reported that this process considerably increases the average shelf life of the loaves. The shelf life extension depends on the production conditions and recipe. Values based on experience show the minimum shelf life lengthening by three to eight days.

Module 3 is the newly developed planetary slicing machine operating at up to 600 rpm. To simplify plant maintenance, all the components are readily accessible and easy to clean when the doors and covers are opened. In addition to an automatic bread height adjustment function with an upper and

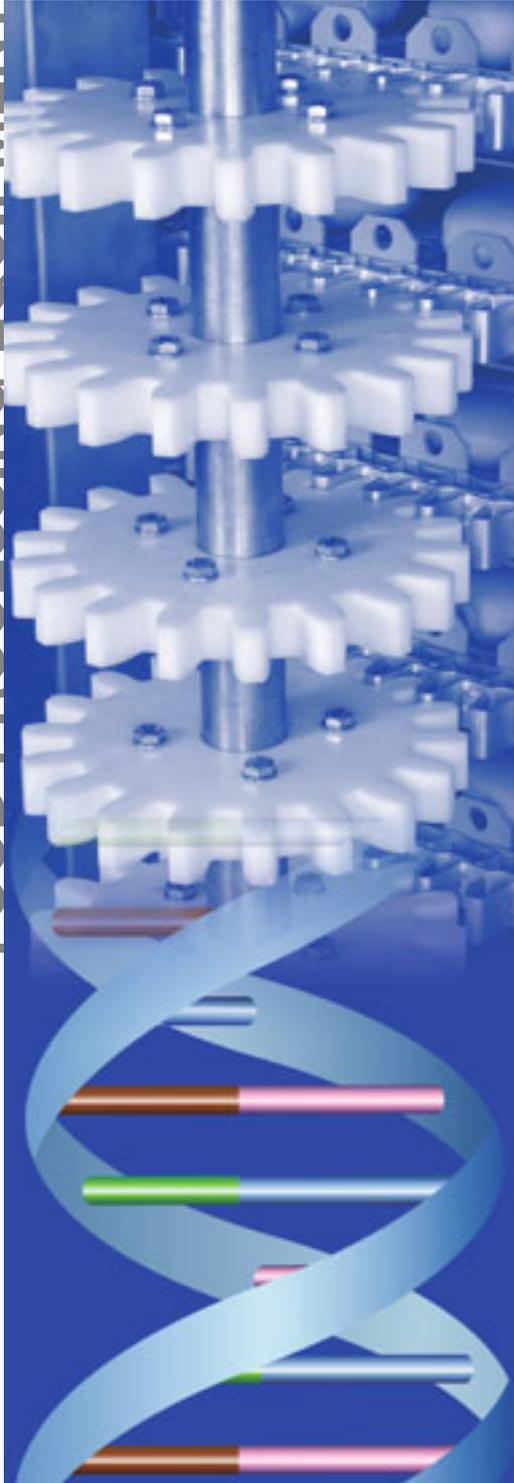
lower chain intake feeder controlled by servo-drives operating in master-slave mode, the freely selectable slice thicknesses can be approached in a sine-wave function. As a result, the circular knife cuts through the bread carefully without the forward feed of the bread pressing against the surface of the knife. Various sine-wave functions can be selected via a touch-screen panel, enabling optimum positioning characteristics to be achieved even with different bread consistencies.

A novel circular knife drive technique enables variable cutting speeds (from approx. 10 m/min to 450 m/min) depending on the types of bread being cut. The oiling technique can also be controlled according to the type of bread. The optimum amount dispensed can be programmed for each type of bread.

Module 4, the portioner unit, can portion bread packs from single bread slices up to 500 g packs of bread, and allows variable production. The capacity equals an output rate of up to 90 bread packs per minute. Segmenting the bread lengths into five sections, backed up by correction values for slice thickness, causes the weight of the bread packs to correspond optimally to the required content weight in spite of shape fluctuations. In combination with a trend control and downstream weighing machine, production results with an accuracy of 3 g are possible. According to Executive Director Andreas Themann, top and end waste sections can be freely chosen, and an additional part-pack function increases the yield from the bread strips and reduces waste. +++

TECNOPOOL

FOOD PROCESSING EQUIPMENT



Evolution in progress.

Tecnopool is a market leader in products for the food industry specializing in the design of versatile equipment.

From the compact Omnia to a complete production line, Tecnopool is able to provide an infinite number of technical solutions which can be modified, if necessary, to meet any changes in production requirements.

- proofing
- cooling
- freezing
- pasteurizing
- pan conveying systems
- oven-loader
- oven-unloader

Tecnopool: from -40°C to + 120°C, custom-made reliability.