

Quality on top

ONE MILLION BUNS FOR HAMBURGERS EACH DAY – THE MOST ADVANCED LINE FOR SOFT BUNS IS CURRENTLY OPERATING IN LEIPHEIM, BAVARIA, GERMANY. WHEN IT COMES TO SEEDING TECHNOLOGY FOR THE BUNS, THE COMPANY RELIES ON A PROVEN SUPPLIER AND ITS LATEST DEVELOPMENT



++ figure 1

++ figure 1
Bread topping unit

++ figure 2
Smart Seeder

+ W-Back is one of the largest soft bun producers in Germany. From two strategically located facilities in North Rhine-Westphalia and Bavaria, the company supplies one of the largest burger chains as well as the food retail and the food processing industry throughout Germany and the adjoining countries. The facility in Bönen, near Dortmund was commissioned in 2005; the facility in Leipheim, just 25 km from Ulm, started operation earlier this year.

W-Back is owned by Peter Wedeln, from a family of industrial bakers who used to own the Kamps group, one of the largest baked goods companies in Germany, and Willy Weiler, a renowned expert for soft buns with more than 20 years of experience in designing, planning and managing such productions.

Both planned their company as well as their production facilities on the drawing board. Bönen supplies the North of Germany with several types of burger and hot dog buns; Leipheim delivers the products to the south. One line, with an hourly output of 50,000 buns, operates in each of the two production facilities. Both factories have an

Burford

P.O. Box 748, Maysville,
OK 73057, USA

Phone: +1 405 867 4467

Fax: +1 405 867 4219

E-mail: sales@burford.com

Website: www.burford.com

integrated possibility for expansion. Within three years, Wendeln and Weiler have achieved a 30% market share in Germany.

While the production line in Bönen follows traditional production concepts for soft buns; in Leipheim, new technological ground was broken with a willingness to take risks. This factory, operating in three shifts, six days a week, was built following strict hygiene criteria. The different production areas are separated and connected only via supply corridors. The production rooms with their slight overpressure can only be entered through hygiene locks.

The dosing of the raw materials is carried out fully automatically into a two-stage continuous mixer - a revolution in soft bun production.

Proofing and baking are performed as everywhere in the world on continuous equipment. After this, the buns are packed on modified packaging machines into pillow bags which are then checked for possible contamination by x-rays and not by commonly used metal detectors. In this way, it is not only metal pieces that can be detected but also oth-

er small pieces such as plastic parts. Willy Weiler emphasizes: "Safety first!"

In terms of topping application, Willy Weiler stayed with the solution already used in Bönen – the Smart Seeder by Burford. Weiler explains why. "This is the best topping unit currently available on the market delivering the preciseness and performance we need. The seeds are applied accurately and uniformly. The losses are minimized because the seeding only take place when a bun is present and not over the entire tray or anywhere else. Downtimes on product change-over are also very short as are unscheduled downtimes because of machine malfunctions."

When the Smart Seeder is installed, the optimum settings for each pan configuration and product is programmed into the machine. At all times, the production staff are informed of the machine status through the user friendly machine display.

When changing from one pan or product configuration to a new one, a patterned mandrel (indented with flutes, match-

++ figure 2





++ figure 3

++ figure 3
Bun topping

++ figures 4 + 5
Model 9940 Smart
Seeder / Topper

ing one row from the indented bun pan or bread tin) is inserted into housing under the topping hopper. This mandrel contains a coded flag which the machine recognises and matches to a particular product profile held in the machine's memory. The Smart Seeder then automatically goes through its set up procedure for that particular product, altering side guide positions, water spray heights, seeding/topping height and the optimum topping volume per product etc. This sequence of events ensures that the machine delivers precise performance, without the need for operator intervention.

When the pans or tins pass under the unit, a laser sensor detects the leading edge of the pan or tin and initiates the cycle. The electronic water sprays can target each individual product and apply a fine spray of water, just sufficient in its pressure and volume to puncture the proven dough piece and provide a good tacky surface to which the topping can adhere. There is minimal overspray

as each gun shuts off between rows of products.

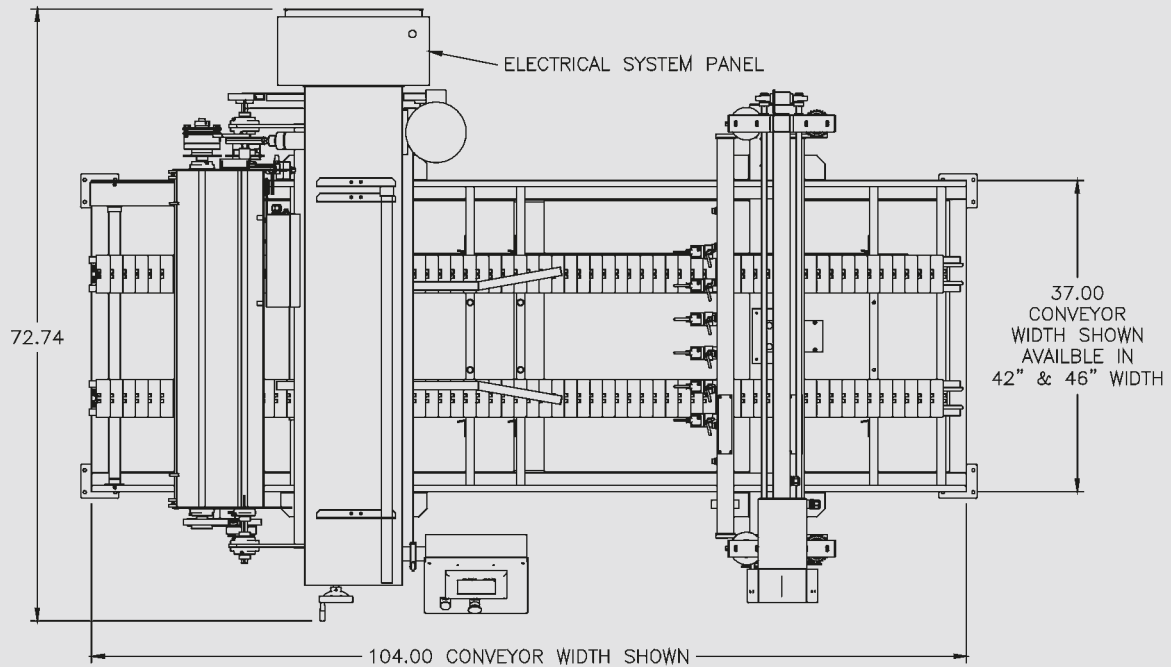
As the pan or tin passes under the actual point of topping, the mandrel rotates, depositing the topping in a waterfall effect onto each product; the pattern of the mandrel ensures that no material is deposited into the longitudinal gaps between products, and the fast reacting electronic clutch momentarily stops the rotation of the mandrel between lateral rows.

Since the pan or tin profiles have been pre-programmed, the whole cycle is carefully controlled to ensure minimal wastage. An encoder continuously monitors the conveyor speed, allowing the Seeder to compensate for any variations of pan/tin movement at the critical point.

Speed is not an issue to the Smart seeder; its capability outstripping conventional bun and bread plants.

As a result of the integration of this new technology into the Burford Smart Seeder, between 25% and 40% seed savings are seen against other seed-

++ figure 4



ing/topping systems. The Burford unit is equally at home applying toppings to either bun or bread products and is capable of laying down any form of dry topping. Obvious examples include sesame seeds, poppy seeds, mixed grains, bran etc.

The unit can be linked to an Autofill system containing bulk storage of the topping product – the Smart Seeder calling for replenishment via a system of high and low level sensors.

The Burford Corp. with its home in Maysville, Oklahoma, USA, is a family owned company. It produces a number of machines closely related to the Smart Seeder, and these include straight and patterned water splitters, glazing equipment, egg wash applicators, flour dusters and closure systems ranging from manual feeding to fully automated units with recognition systems capable of handling 100 bags per minute. +++

++ figure 5

