

The new improver time

The Polish bakery goods manufacturer Inter Europol produces large volumes of starter doughs for wheat and rye bakery products using equipment supplied by Daxner

An important success factor of this renowned pre-bake manufacturer is its consistent use of rye sour dough and wheat sponge in its bread and biscuit production. For its further expansion, the company relies on the technology supplied by Daxner. Working on a 3-shift cycle, 500 employees process approximately 30 t of rye sour and 45 t of wheat sponge a day.



The consistent use of sour dough and sponge has enabled the use of baking agents to be gradually reduced.

PRESS RELEASE | PROJECT INTER EUROPOL

In the fiercely contested market for pre-bake goods, manufacturers are searching for USPs which differentiate them from the competition. The objective is to convince the customer to such an extent that when placing an order he selects one's own company. An important element in the product offering of the Polish manufacturer Inter Europol is its consistent use of rye sour dough and wheat sponge in its bread and biscuit production.

The pre-bake producer from Marki, not far from the Polish capital Warsaw, has invested for years in the technology supplied by the system builder Daxner, which installed the components and has gradually built the system up to the level it has today. Working on a three-shift cycle, 500 employees currently process approximately 30 t of rye sour and 45 t of wheat sponge per day.

This is a real success story when considering that Wojciech Smiechowski and Peter Mitsch got together in 1995 to produce bakery products in an area of 60 square metres. After only three years the premises became too small and the business partners acquired a new site where production still continues today.

Expansion is still continuing. Customer growth has come mainly from food retailers, discounters, major customers,



the catering sector and the deep-freeze sector and when viewed together with the convincing products and Inter Europol's well-planned product concepts, this has made additional expansion necessary. The new plant located 20 minutes away from the firm's current site is already planned and according to project manager Rüdiger Stollmeier should start operations in autumn 2013.

Different connections such as the water and volume control are required to smoothly control the automated process. The latest capacity expansions in the production of sour dough of a further 2 tanks took place in 2012 and 2013.

Sour dough

PRESS RELEASE | PROJECT INTER EUROPOL

The requirement for rye sour from flour and coarse meal for the bakery products to be produced also increased in line with the company. Recently Daxner installed additional fermentation tanks in which the sour doughs fermentate. The system builder has now installed ten fermentation tanks with a capacity of 2,500 l which continuously supply production with sour dough.

However, first of all the individual components must be mixed in one of the two 2,000 l mixers. Like the fermentation tanks the mixers also have a three-wall outer cover. Therefore, if all fermentation tanks are filled, they can be converted into a storage location. This increases the

flexibility of production yet is rarely used due to high throughput levels. First of all the required quantity of flour or coarse meal is weighed and then added through a direct connection to the mixer. A separate pipe is also installed for the necessary water. Also linked to the mixers are the two tanks in which the storage leaven is produced separately and stored. When all components are in place the mixer starts to move and mixes the individual ingredients thoroughly. Then the sour dough is pumped into an empty tank for fermentation. A dedicated extraction pipe is available for each type in order to avoid any cross-mixing.

The fermentation tanks are also naturally equipped with a mixer to keep the rising

sour dough moving and thus to reduce the volume. The sour dough is then transported by type through further separa-

ted pipes to the weighing stations where smaller storage tanks are installed and from which the sour dough and other liquid components may be requested. This action speeds up the weighing, because the individual ingredients do not have to be transported long pipe distances. This is certainly an aspect to be considered since Inter Europol processes about 30 t of rye sour dough every day.

Wheat Sponge

The volumes for wheat sponge are somewhat higher. For this the bakers require about 45 t per day and which are prepared in a Daxner system installed in 2011. Two weighing scales operating one behind the other ensure the batch supply of the pre-dough mixer with flour. Whilst the required volume is being weighed in the upper weighing scale, the lower weighing scale can simultaneously supply the pre-dough mixer.

The liquid components of the wheat sponge are continuously made available and transported via the relevant connections to the mixing screw which generates a homogeneous mass. The wheat sponge then arrives in the fermentation tanks via a system of pumps and pipelines. The sys-



All tanks, both for sour dough and sponge, are mounted on load cells in order to precisely control the processing sequences. The pre-dough mixer mixes the individual components of the wheat sponge with a mixing screw to form a homogeneous mass.

OUR KNOW-HOW. YOUR STEP AHEAD

PRESS RELEASE | PROJECT INTER EUROPOL

tem was initially only designed for three tanks with a volume of 5,000 l.

„If predicted how quickly the system capacity would be reached, then we would have installed four tanks from the outset. Therefore we had to retool quickly but with Daxner’s planning foresight the installation was smooth” says Stallmeier explaining the individual construction phases. After the fermentation period in the tanks the system pumps the wheat sponge into the 6,000 l capacity storage tanks. During this process a plate heat exchanger is interconnected and which cools down the wheat sponge by over 20 °C to the desired storage temperature.



The whole system is time and temperature controlled and may be operated and controlled both by a control unit directly on the system and via the computer in the production office. Cleaning is very important both for sour dough and for wheat sponge in order to avoid any subsequent spontaneous fermentations. The respective tanks are cleaned with an automatic cleaning programme and the pipelines with a pig. The system guides residues through the relevant pipes into the avail-



ble drainage outlets.

Conclusion



At Inter Europol the people in charge have clear ideas on how competitive products have to look. Sour dough, wheat sponge and the processing of soakers give the bakery products their specific character manifested in a long freshness period and an individual aroma. These quality components are also attractive from a cost perspective since their use enables the use of baking agents to be reduced.

Another factor in this success story is the flexible production process which is able to accommodate individual customer requests. To achieve these the modern technology in use is enhanced by manual activities in specific places. The product

PRESS RELEASE | PROJECT INTER EUROPOL

range covers 35 g party rolls to large loaves. 500 employees work 24/7 on 13 production lines to produce the bakery products.

The core competency of the company is the production of bread and bread rolls. Most of the production is frozen, either as pre-fermented dough or part-baked. The 9,000 industry standard palette capacity of the deep freeze store enables production to produce large volumes which can then be buffered in the store. 60 percent of the goods produced remain in Poland with the remainder being exported. „With

a proportion of only two percent, Germany plays a minor role in our international business. The market is very fiercely contested and Inter Europol only has a presence there with a few niche products“ says Mitsch. The situation in Poland is very different where the company is represented in Warsaw and the surrounding area with 28 of its own shops and its own logo and is known across the whole country through supermarket chains and large customers.

Source: Backtechnik-europe,
Gregor Vogelpohl

