

Sourmatic

SOURDOUGH STATIONS

Advantages of sourdough baking

Sourdough enhances the baking properties of the rye flour

Sourdough increases the ability of the dough to absorb water, thus resulting in a softer, less crumbly bread

Sourdough increases the elasticity of wheat dough, thus making the dough easier to handle. The rolling properties of a puff-paste are enhanced giving more even layers in e.g. Danish pastry

In a sourdough, not only lactic acid and acetic acid are formed, but also many other aroma compounds, contributing to a richer and more full-developed taste

Sourdough prolongs the microbial shelf-life on the bread, it will not mould as quick and the risk of ropiness is dramatically decreased



Ipeka Automation Oy has 20 years experience in automatisisation of sourdough manufacture. The company has delivered hundreds of sourdough tanks both to small and big bakeries in Scandinavia and Baltics.

The use of sourdough has long traditions in Finland. Almost all the big and middle size Finnish bakeries have an IPEKA-sourdough station. The smallest ones have a tank volume of approx. 100 litres while the biggest systems have the total volume of more than 20.000 litres.

Sourdough is dough containing living lactic acid bacteria and yeast fungi. Sourdough is at one and the same time a baking aid, an aroma producer and a preserving agent. In addition, sourdough increases the nutrition value of the bread.

Using relatively simple equipment small amounts of sourdough can be produced. However, sourdough production in larger scale requires more technique and automatisisation and the process must be an integrated part of the total production process in the bakery. Exact temperature control with well-controlled mixing during the fermentation and storing is of extreme importance.

Heat isolated IPEKA sourdough stations are manufactured of stainless steel. Around the container and at it's bottom there is a water jacket that is equipped with a heating element. A mixing unit is fixed to the cone shaped lock of the container. The mixer has stainless mixing blades and the rotating direction can be chosen according to the steering program. At the bottom of the container there is an outlet pipe equipped either with a manual or automatic dosing valve.

At the top of the container there is a hole for flour intake. The flour feeder consists of a container of 300 or 500 l, a horizontal and vertical flour feeding screw. The flour container is equipped with wheels.

The whole sourdough process is controlled automatically by a PLC. If production of wheat sourdough is concerned, the sour dough station will be equipped with a cooling system. Highly automated sourdough stations have a pH-control system, too.



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