

Top Quality dough for Brussels Waffles with Magnet Mixing



Deligoût is Belgium's most well-known producer of premium frozen Brussels Waffles, most probably also worldwide. One of the key elements in making a good Brussels Waffle starts with a very sensitive liquid batter that should be homogeneous and at a very constant temperature.

For a consistent quality the dough properties should remain identical all year round. In the recent years, it became evident that capacity was too small to face the growing demand and as they could not expand, Jean Degrande started to search for a new location where he could enhance his production in terms of quality, automation and hygiene.

Challenge

- The major condition to make a good Belgian Waffle is that the liquid dough should be as homogeneous as possible.
- A constant dough temperature guarantees a consistent quality
- Looking at their future planned growth, Deligoût set the ambitious goal to have enough capacity as to multiply the current volume by 6.
- Deligoût wants to convert their batch-oriented process into a continuous process.



Solution

- For these sensitive Waffle doughs Spiromatic consulted the revolutionary application of Magnet Mixing called M4E (Magnets for Emulsion).
- The Magnet Mixing technology is based on the principle of the Laurentz Force: A Flour mix is proportionally added in a high speed circulation of water or another liquid mix through a venturi. A magnetic field after the venturi enhances the homogenization of the product after a few passes through the loop system.

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Because the dough quality is so sensitive for these products, we have never imagined that we could achieve such a constant and high quality dough.

- In order to ensure a continuous process at Deligoût, up to 3 tanks are required: 2 Process Tank for the mixing while another tank is cleaned or rinsed. 1 Production tank for the fermentation process and as a buffer before feeding the ovens.





Results

All ingredient dosing and metering is now automated. Bulk flour hopper. The weighing hopper is dosing proportionally into the M4E venturi

A Siemens 1500 CPU controls the complete process from a 15" HMI, including CIP, dough fermentation and dosing of dough in the oven.

The operating flow from ingredient intake up to packaging is controlled by only 1 operator and monitored from the central administration office.

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Meanwhile we have tripled our production and the investment of the 2nd oven is in process now. It is a piece of cake for Spiromatic to extend the current Mixing plant by only adding some tanks and avoiding major production stops

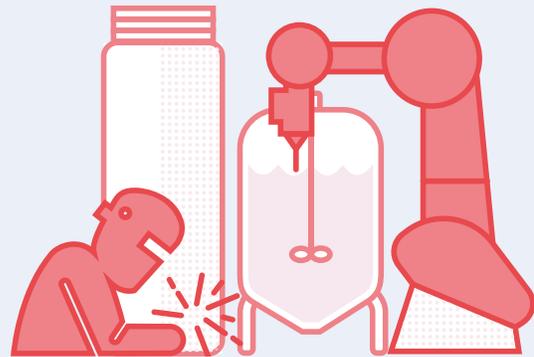


Spiromatic, the perfect partner for your complete project



Spiromatic develops **durable total solutions** for automated storage, conveying and dosing of dry & liquid raw materials for the food industry.

For more than 50 years, Spiromatic has held a leading position in the dough processing sector in terms of **storage, transport and dosing of ingredients**. Our basis? Entrepreneurship, innovation, professionalism and client focus.



Our ambition? To ensure that your **production process runs perfectly**, so that you will get the maximum output and benefit from your installation.



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