Precision Weighing on the move. Anywhere. Everytime. See pg 32
Bakery opts for centrifugal sifter for mass flour screening

The Laurel plant of Gourmet Baker, one of Canada’s leading producers of baked desserts, uses more than 36 tonnes of flour each week. A new centrifugal sifter from supplier Kason is now helping filter that flour prior to use.

Gourmet Baker’s Laurel plant in Burnaby, British Columbia, produces many flavors of strudel, Danish pastries, puff pastries, croissants and cinnamon rolls. A critical step in this production is sifting of the flour to remove unwanted material, accomplished using a recently purchased sifter for strudel production, and an older one for multiple products.

Chris Helgason, Gourmet Baker’s maintenance manager, explained that the older screener was originally designed to sift sugar and did not work well for flour.

“When we replaced the old screen basket with a 30 mesh (516 micron) screen, the machine couldn’t handle it and kept breaking down,” he said.

The company replaced the screener with a Kason Centri-Sifter Pneumati-Sifter centrifugal screener, the same machine dedicated to its strudel line.

Moving flour from silo to mixer

Flour is stored in two 31.7 tonne silos equipped with rotary airlocks feeding a pneumatic conveying system that delivers material to the sifter.

The flour enters a vertical inlet at the feed end of the centrifugal sifter, a horizontal, cylindrical machine that houses a 30 mesh (516 micron) stainless steel cylindrical screen mounted on a central shaft that is fitted with helical paddles. A 2.2kW motor rotates the paddles, which accelerate the speed at which on-size flour passes through apertures in the screen and drops into the pneumatic line below. Oversize debris is ejected through the back end of the cylinder into a sealed quick-release receptacle. Each sifter processes about 34 kg/min of flour.

A pneumatically actuated diverter valve sends sifted flour to a hopper that feeds a triple-action dough mixer (for the puff pastry line) or, in the case of the original sifter, to one of three roll-bar horizontal mixers.

Each mixer’s hopper is set on load cells, allowing a PLC to stop the flow of material to the hopper once the target weight is reached. The desired amount of water is then metered into the mixer, while yeast and other ingredients are added by hand.

Transforming dough into frozen goods

A typical batch weighs 200–400kg, said Helgason. Once thoroughly mixed, it is dropped onto a wheeled table and moved to the appropriate production line. There, the dough is manually cut into chunks and fed by a conveyor to an extruder, which produces a continuous sheet of dough. Measured amounts of filler (e.g. apple or cherry for strudel) are added, and then the dough is cut and shaped to obtain the final product. Finally, the product is frozen and bulk-packed in boxes for shipping.
"Quality solutions for quality products"

GEA Nu-Con for all your Powder Handling needs.

Our Rotary Valves come in a range of materials and configurations from a standard valve to fully demountable for easy cleaning without the need for tools. We supply to a wide range of industries including Chemical, Plastics, Minerals, Food, Dairy and Pharmaceutical.

GEA Nu-Con Pty Limited
458 The Boulevarde, Kirrawee NSW 2232
Phone: +61 2 9545 2600, Fax: +61 2 9545 1846
sales.nucon.au@gea.com, www.nucon.com

GEA Process Engineering

High-speed centrifugal sifting of flour for strudel and other baked desserts contributes to the premium quality of Gourmet Baker's offerings such as blueberry strudel and large blend croissant.

"We have had no contamination of the flour and no problems at all," he said. "All we have to do is perform preventive maintenance once a month and inspect the internal screen once a week."

Helgason added that the sifter is easy to clean and service. "It is a Quick-Clean model with two ports on top and a hinged access port and cantilevered shaft at the discharge end, from which we can remove the screen in less than 10 minutes for cleaning and inspection."

Kason is represented in Australia by DTD Engineering.

Contacts: info@kason.com Email: mpolidano@dtdeing.com.au
www.dtding.com.au