

Bagel Bakery Goes HI-SPEED



When a 30-year-old, U.S.D.A.-certified bakery wanted to increase production and improve quality and process control, Mettler-Toledo HI-SPEED developed an innovative solution for the Pacific Northwest business.

The commercial bakery business can be tough, so keeping production and quality control up is the only way to stay competitive. A bakery can stay in business only if its goods are of a consistently high quality, and if it can meet consumer demand with its products.

One bakery in the Pacific Northwest has been producing high-quality bagels for over 30 years. A track record of good taste and high quality has kept its doors open when other bakeries were forced to close. It is little wonder then that the company places such a high value on process control.

Challenge: Increase production and maintain quality

Bagel Bakery Goes HI-SPEED

Published on Industrial Maintenance & Plant Operation (<http://www.impomag.com>)

Keeping its quality up is a key success factor for the bakery. It can afford no compromise in this regard. When the need arose to increase production to meet consumer demand however, a close examination of production processes revealed some problems.

The process the baker used to make bagels began when a slug former would portion then roll out the dough, forming it into slugs. Each slug would eventually become a bagel. But there were drawbacks to the system, causing inconsistency and waste.

“Handling raw dough can be a challenge,” said Steve Tullio, the Mettler-Toledo HI-SPEED inside sales manager who managed the project. “Not only transferring the slug between conveyors, but also ensuring non-conforming product can be completely rejected without leaving any residual product behind.”

As it stood, too many slugs had to be rejected for non-conformity. A comparison of ingredients used to produce bagels showed that too few acceptable bagels were being formed per batch, and this directly affected the company’s bottom line. If the bakery wanted to optimize and further increase its production to 80 bagels per minute while maintaining its high quality, changes needed to be made to reduce wastage.

An innovative Mettler-Toledo solution

A coordinated effort between HI-SPEED sales representative Jake Eggimann and the HI-SPEED research and development team resulted in an innovative solution for the bakery: a HI-SPEED multi-lane checkweigher that would be integrated directly after the former discharge conveyor.

The change would result in a positive “waterfall” transfer design: the slugs would drop as they migrated between former, scale and discharge conveyors, to ensure the entire slug would be transferred completely. Each of four lanes would be equipped with a drop through rejecter to allow over- or under-weight dough slugs to drop onto a separate “reject” conveyor on which they would be taken away for re-use.

“Increasing slug consistency by using feedback from the checkweigher can improve the overall product quality. It can also lead to few rejects, less waste and rework, which lowers overall production costs,” Tullio explained.

Since the bakery was an existing facility, space was at a premium. The HI-SPEED team optimized the overall system footprint to fit the existing space. The multi-lane checkweigher’s open design, all stainless construction and a conveyor belt that could be removed or replaced without the need for tools allowed bakers to easily inspect, clean and maintain the unit — an important feature helpful for maintaining U.S.D.A. certification.

“The customer appreciated our ability to adapt to their changing needs quickly and to create a checkweighing solution that fit their production methods and cleaning

Bagel Bakery Goes HI-SPEED

Published on Industrial Maintenance & Plant Operation (<http://www.impomag.com>)

requirements,” Tullio explained. “We continue to see more multi-lane checkweigher applications as customers need to increase production, improve quality and reduce waste, all within the confines of an existing facility.”

METTLER Toledo is the world’s largest manufacturer and marketer of weighing instruments for use in laboratory, industrial and food retailing applications. For more information, please visit www.us.mt.com [1].

Source URL (retrieved on 04/21/2015 - 8:54am):

<http://www.impomag.com/articles/2010/08/bagel-bakery-goes-hi-speed>

Links:

[1] http://us.mt.com/us/en/home/supportive_content/case_studies.PI_HSSL_Bakery.twoColEd.html?crel=ePR_ABI_NA_PR_IND_20100302-1