

Sweet success in the food industry

In a 24/7-production environment, Gertrude Hawk Chocolates optimizes production and quality by switching to a new self-cleaning filter system that eliminates production stoppage due to filter cleaning and blocking.

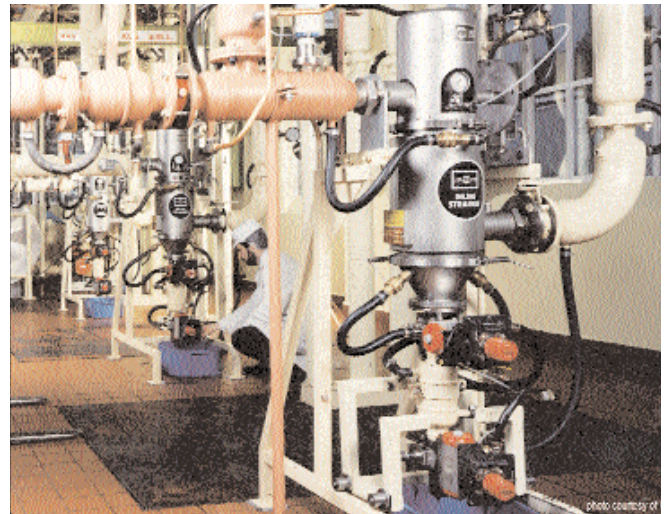
When Gertrude Hawk began making chocolates in the family kitchen almost 70 years ago, she had no idea what it would lead to. Today, Gertrude Hawk Chocolates, based in Dunmore, Penn., is still a family run business but sells assorted chocolate products in markets ranging from retail and wholesale to contract Manufacturing, fundraising, and ice cream inclusions for major brands.

But unlike the chocolate factory Roald Dahl wrote about in his famed children's book, there are no singing Oompa Loompas producing chocolate at the Gertrude Hawk factory. Instead, three shifts work 24/7 all year round, depending on critical equipment to meet high volume demand while producing consistently high quality results.

For Gertrude Hawk Chocolates, the right equipment must not only minimize downtime and deliver required throughput but also meet strict hygiene and safety standards. This includes HACCP, FDA inspection, kosher certification, physical and micro tests, as well as satisfying competitive pressures such as JIT delivery schedules.

"While in production, we need to run as much as we can, as fast as we can, as long as we can," says Bill Alfano, maintenance foreman and lead mechanic at Gertrude Hawk Chocolates. "Even a single filter element clogging can disrupt production, requiring reassignment of up to 30 employees to other tasks. And quality, of course, can never be compromised."

To achieve the right premium taste and texture for customers, the company uses filtration on anything chocolate coatings related, which involves about 70% of its product line. Previously, traditional wire filter baskets were predominantly used for chocolate coatings filtration, but these had serious disadvantages.



- Improves product quality
- Reduces running costs
- Increases productivity

"The filter baskets cost us production downtime when cleaned every other day," says Alfano. "They had to be removed, scraped, washed, dried, and replaced before we could get production back up and running."

According to Alfano, the filter baskets required increased pump maintenance. "When a filter would block, the chocolate pump would seize, costing us about three hours of production," says Alfano.

For a company which has prided itself on quality from the start, quality also was an issue. "If a filter basket wasn't replaced correctly, air could be sucked through a chocolate pump," says Alfano. "That could cause a consistency problem or problems with our tempering units."

Due to the filter baskets' drawbacks, Alfano's maintenance crew had to "virtually baby-sit" them, making it difficult to stay on top of other important tasks such as preventative maintenance schedules.

In search of a better solution, Gertrude Hawk Chocolates turned to the state-of-the-art self-cleaning Eco Filter system from Russell Finex of Pineville, North Carolina.

Manufactured at the Russell Finex plant, the Eco Filter is a self-cleaning system that integrates directly into the pipeline and completely eliminates the need to clean filtration baskets or change filter bags. By means of a unique spiral wiper design, the filter element is kept continuously clean, ensuring optimum filtration efficiency. Because of its self-cleaning design, cleaning the filter between batch runs is quick and easy with minimal disruption during production changeovers.

"The main attraction of the Eco Filter was how it cleans itself so we don't have to shut down production," says Alfano. "Twice a week, we just open a valve and the oversized material pushes out the bottom while it continues filtering. There's no production stoppage or slowing. Once we saw its ease of operation, we knew it was the way to go."

Gertrude Hawk Chocolates now uses four Russell Eco Filters® in production. These have a unique Q-Tap valve that allows the sampling of freshly filtered material so the quality of chocolate coatings can easily be monitored on the fly without interrupting production.

The filters also feature the Russell Filter Management System™, a technology that automatically opens the oversize discharge valve at a specified differential pressure or time interval. The system enables the filter to be operated efficiently without operator involvement.

Compared to the previous basket filtration method, these filters are saving the company a substantial amount of labor and downtime.

"Because the Eco Filters are so operator friendly and eliminate the need to clean filter baskets, we're saving about 60 man hours a week with them on our 24/7 shifts," says Alfano. "They've also eliminated filter blockage and pump seizures. Rather than 'baby-sit the filters,' our maintenance staff is now staying on top of other important tasks such as preventive maintenance."

As companies like Gertrude Hawk Chocolates are discovering, the self-cleaning Eco Filter fits neatly into existing production lines, in many instances adding significant capacity without requiring excessive space. Because it's totally enclosed, it also prevents outside pollutants from contaminating product and protects operators from any fumes or spillage. Users see substantial improvement in product purity as well as throughput and waste elimination.

"Because the Eco Filters have solved our concern of air entering the chocolate pumps, they've helped improve product quality in addition to throughput," says Alfano.

According to Alfano, a choice of easily swapped filter elements used with the system also gives Gertrude Hawk Chocolates additional flexibility to meet the exacting quality demands of their customers ranging from retail and wholesale to contract manufacturing, fundraising, and ice cream inclusions.

"The Eco Filters are making us more competitive and are aligned with the goals of our mission statement - to be innovative in our products, practices, and procedures for competitive advantage while profitably furnishing the finest chocolate products available," concludes Alfano.

For over 70 years Russell Finex has manufactured and supplied filters, screeners, and separators to improve product quality, enhance productivity, safeguard worker health, and ensure powders and liquids are contamination-free. Throughout the world, Russell Finex serves a variety of industries with applications including food, pharmaceuticals, chemicals, adhesives, plastisols, paint, coatings, metal powders and ceramics