For Godiva quality is everything

With the installation of Russell Eco Self-Cleaning Filters® and Compact Sieves®, Russell Finex have helped Godiva reach the highest quality standards, delivering maximum customer satisfaction everytime.

Godiva Chocolatier was founded 80 years ago in Brussels, Belgium and supplies its range of high quality "luxury" chocolates in over 80 countries. Using only the finest chocolate and highest quality ingredients, Godiva chocolates are found in some of the most prestigious stores around the world, from Wanamaker's in Philadelphia, Pennsylvania to Nihonbashi Mitsukoshi Department Store in central Tokyo.

Godiva uses both enrobing and shell moulding processes to manufacture the various sizes and shapes of chocolates, the latter being extensively used in Europe. As with many chocolate processes, foil is commonly used to wrap chocolate because of its decorative/luxury appearance and ease of wrapping varying shapes. However, this complicates rework processes, since the foil must be removed beforehand and as a result it is not uncommon for pieces of foil to contaminate the chocolate. To prevent this or any other foreign body contamination from entering the moulding process, Godiva have relied upon two large sieving units installed just before the chocolate depositors, which is the last stage of the process before chocolate is poured into the moulds. Although they have been reasonably effective, metal detectors would frequently alarm due to small fragments passing through the units causing costly rework. With the popularity of their chocolate increasing and with growing demand, Godiva recognized the need to review its process with the aim of gaining zero tolerance on contamination while improving production efficiency.

At the early stages of the project, Godiva identified two areas where foreign bodies could enter the chocolate. Firstly, from the rework chocolate as it is returned to the storage tanks where it is mixed with virgin chocolate. Secondly, due to the nature of chocolate processing, contamination can be introduced due to large amounts of pipework and pumps being used to transport chocolate throughout the process. As a starting point, Godiva made contact with their chocolate supplier since every batch of virgin chocolate entering the Godiva plant is certified as contamination free. This resulted in a visit to one of the plants to learn how it was achieved. The systems used were fully enclosed self-cleaning filtration units supplied by Russell Finex. Peter Van Ingelghem, Engineering and Maintenance Manager of Godiva explains, "As soon as we saw the installation it was clear that this was the solution we had been looking for." He added "With these systems installed there have been no reports of contaminated chocolate being delivered to our factory". Without hesitation, Godiva made contact with the Russell Finex sales office in Mechelen, Belgium to discuss the project in more detail. Consequently, an in-depth risk assessment of the process was developed and, combined with Godiva's research and Russell Finex's experience, a design was finalised meeting all their objectives.

Figure 1. Russell Self-Cleaning Eco Filters® installed at the Godiva Plant in Belgium

- Provides zero tolerance on product contamination
- Reduces operator involvement, production downtime and maintenance
- Increases product quality and customer satisfaction

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The chosen solution utilised a combination of both liquid filtration units and round vibratory sieves covering two critical control points within the system. This provided Godiva complete control on contamination while increasing production flexibility required to meet market demands.

The liquid filters installed were Russell Eco Self-Cleaning Filters®, one after each storage tank (see figure 1). These would remove any contaminant from within the tanks that could have been introduced through rework. The units were selected due to their high flow rates and innovative self-cleaning design meaning operator involvement is kept to a minimum.

The second control point was just before the depositors. A bank of Russell Compact Sieves® replaced the two existing sieving units, working in tandem with the filters (see figure 2). “The Compact 400 sieves were chosen as they fitted neatly into our existing process without losing the cleanability of the depositors” states Van Ingelghem.

The installation provided Godiva with a process that ensured contamination of foreign bodies was effectively eliminated. “Having a global recall is something that we are unable to quantify in terms of costs. However, with the new Russell systems in place we have complete peace of mind that our product is being supplied to the highest standards.” Van Ingelghem concludes; “In fact it has actually made our metal detectors virtually redundant since we rarely ever hear them activated”.

The new installation has given Godiva complete traceability back to any contamination source. This has improved maintenance procedures whilst increasing efficiencies in the rework processes. Moving forward, Godiva have recognised the support that Russell Finex provided throughout the project whilst also offering a customer care support system that ensures a fast response to any maintenance requirements. This was particularly evident at the early stages when time was spent trying to select the optimum mesh sizes for the equipment.

For over 75 years Russell Finex have manufactured and supplied filters, sieves and separators to improve product quality, enhance productivity, safeguard worker health, and ensure liquids and powders are contamination-free. Throughout the world, Russell Finex serve a variety of industries with applications including food, pharmaceuticals, chemicals, adhesives, plastisols, paint, coatings, metal powders and ceramics.

Figure 2. Russell Compact Sieves® fit perfectly above the chocolate depositors.

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