



Leading dairy producer utilizes Russell Compact Sieve® to double its productivity

Lactoprot Deutschland GmbH vastly improves capacity of its lecithin handling line with industrial screening equipment

Lactoprot Deutschland GmbH is a leading company whose main activity is the processing of whey and milk, for use in a variety of different products in the food and beverage industry from ice cream, to baked goods, and confectionery.

Established in 1978 and now with three locations in northern Germany, and a subsidiary in the south of Germany, Lactoprot has a worldwide customer base and employs over 220 people. Russell Finex worked specifically in Lactoprot's newest site based in Lübeck, which produces 20,000 tons of packaged dried goods per year, with three blending and five packaging lines for various stabilizers. The site also handles lecithin, a fatty product which occurs in animal and plant tissues, used to emulsify and homogenize liquid mixtures.

As well as being a difficult to sieve product due to its consistency, lecithin is also extremely sensitive to both light and manual and mechanical handling. As such, the production process used to deal with this material is incredibly important. In order to ensure product quality, the lecithin is sieved as a raw material in a bag-to-bag sieving process to accurately remove any contamination and foreign particles.

Production process

Lactoprot initially used a highly inefficient manual handling operation which required an operator to brush the lecithin through a simple, round sieve. This resulted in a low throughput rate and due to its sensitive nature, risked the quality of the product. Since the correct processing of this material is crucial to ensure product quality, the company sought a more efficient solution.

Having already used a Russell Compact 3in1 Sieve™ on a different processing line, Lactoprot once again contacted Russell Finex at Powtech exhibition to find a suitable solution. The Russell Compact Sieve® was recommended as the best machine to increase throughput, due to the nature of its technology which allows for it to process higher throughput rates than standard sieves, whilst taking up less production floor space.



Figure 1. The Russell Compact Sieve® installed on site at Lactoprot's facility in Lübeck

-  **Improves product quality** - Efficiently removes oversize and contamination
-  **Increases product yield and throughput** - Compared to standard vibrating screens
-  **Fits into smaller spaces** - Ideal for placing into production lines with limited headroom



To ensure peace of mind before purchasing, Russell Finex supplied Lactoprot with a test unit which was installed at its site. Pleased with the results, Lactoprot then purchased a Russell Compact Sieve® which was customized to have a 250mm height sieve deck, which allowed for a 25kg bag of lecithin to be emptied into the sieve. This improved the throughput rate by up to 50%, depending on the quality of the lecithin.

Production Manager Michael Schwanke comments: “We were very happy with how Russell Finex dealt with this project, especially with how fast and easily available a test unit was made to check how good the system was before purchasing.”

When describing the benefits of using the Russell Compact Sieve® in its process line, Owner and General Manager Steffen Rode comments; “We were really impressed by the improvements that the Russell Compact Sieve made to our production process. It allowed our throughput to increase by up to 50%, a far better rate than we were seeing when using our previous sieve.”

production process.”

In addition to this Lactoprot purchased four high quality mesh frames for the cleaning cycles, ensuring that the Russell Compact Sieve® can be kept running consistently throughout the day whilst maintaining efficient processing of the lecithin. The Russell Compact Sieve® has proved to be a brilliant investment for Lactoprot, compounding pre-existing customer loyalty and experience with excellent machine performance – linking back to Russell Finex’s core philosophy, “Customer Trust, a Russell Must”.

With 85 years’ experience designing and manufacturing industrial processing equipment for an international market, Russell Finex is a global leader in sieving and filtration technology, directly serving the food and beverage industry with high quality, hygienic equipment to meet the strictest standards.



Figure 2. An example of lecithin, the product processed by Lactoprot Screening solution

An innovative screening solution, the Russell Compact Sieve® is ideal for high capacity screening of various powders and liquids, whilst also fitting neatly into production lines. The machine allows for improved product purity and a reduction in production downtime, as the unit can be quickly and easily stripped down for cleaning.

Schwanke says: “Operator involvement was also reduced, and our process can now run without the need for excessive manual handling, which saves us time and speeds up the