

Food Ingredient Industry

In an extremely demanding industry, Farbest Brands discovered that using compact vibratory screeners for scalping and sizing materials optimized product throughput and equipment uptime, while meeting highest quality sanitation requirements

For almost 50 years, Farbest Brands has been a food ingredient supplier to many of the largest and smallest manufacturers for everything from proteins and vitamins to sweeteners, preservatives and specialty products. The company's custom manufacturing services include specialized dry blending, particle sizing and sifting, and sophisticated liquid blending capabilities. Farbest even has a complete food development laboratory that enables customers to fine-tune their formulas and react to changes in market trends.

To meet the demands of its customers, Farbest imports ingredients from all over the world by the truckload for distribution or further manufacturing in its own plant in Columbus, Ohio. The ingredients they produce must not only be of the highest quality, but also designed to mix, blend or liquefy according to specifications that meet a customer's own production and quality standards. At the same time ingredient producers like Farbest must also meet very high quality, hygiene and safety standards including HACCP, as well as competitive pressures such as critical JIT delivery schedules.

This means they must be both flexible and efficient, which requires the right equipment to minimize downtime and get the needed throughput. For Farbest, this meant choosing the right fine mesh separators to efficiently screen food powders and liquid slurries to ensure final product quality.

"When it comes to flat screening, we need to move large volumes of material through rooms with limited space," explains Dennis Cowles, Farbest Maintenance Manager. "It is important to have vibrating screeners that are not too large, not easily damaged and easy to clean."

While those requirements may seem simple enough, they are not always easy to achieve. Some equipment designs are more prone to occasional break-downs such as screen tearing during high-volume operations.



- Improved product quality with accurate oversize particle removal
- Increased productivity and reduced labor costs with simple dis-assembly and cleaning
- Compact design fits easily into existing installations and areas of limited head room.
- Solid rubber suspension gives quieter operation.

Various designs have components that can vibrate loose and enter the product stream below the mesh screen. In addition, cleaning these screens to meet stringent hygiene requirements can often be tedious and time consuming if you don't find the right equipment.

To avoid these problems, Farbest Brands uses a high-capacity, 36-inch vibratory Compact Screener from Russell Finex, Pineville. Although Farbest uses other screening and separation equipment, Cowles says he was looking for a system that fit into an area with limited headroom when he noticed the Russell Compact Screener in some trade journals.

All Farbest Brands processes are HACCP (Hazard Analysis and Critical Control Point) controlled. Russell has extensive experience in working with their customers to determine the appropriate use of screening and filtering equipment to meet these requirements.

For over 70 years Russell Finex has been manufacturing and supplying separators, screeners and filters to ensure that powders and liquids are free from contamination, improve product quality, enhance productivity and safeguard the health of workers. Their unique, Compact vibratory screeners are a breakthrough improvement over conventional screeners whenever headroom or room size are issues.

Screening is a primary operation for ingredient manufacturers like Farbest. "We use a certain size of screen to prevent agglomeration of product, so that it mixes well with other products, and doesn't ball up," says Cowles. "We often screen material before it goes into a mixer, for example. We don't want any particles that are greater than a certain size so that we're sure it will work for our customers when they make the end product."

Cowles felt that the compact size of these screeners would be very beneficial to his operation. "We have limited space in our production rooms, and they are often filled to capacity by stacks of material in bags. The compact screening equipment, which is used for scalping (removal of larger contaminants), enables us to use more of the room for material, and eliminates the need to have a costly conveyor to transport material from one room to another," he says.

The compact size and mobility of these screeners also enables the Farbest production crew to relocate and set up the equipment quickly, if necessary.

Durability was also a requirement in Cowles decision. "These screeners use wire mesh screens, so we don't have to worry about the screens tearing or pulling loose as with those made of nylon," says Cowles. "Sometimes that can happen and you're not aware of it until you see some paper or other foreign object after the screen, which could require you to re-screen the material that has been processed since your last QC entry."

As a food ingredient supplier, hygiene is naturally a top priority at Farbest. Chemical and physical tests are conducted regularly in-house, while micro testing is entrusted to certified laboratories. The plant is FDA inspected, Kosher certified by the Orthodox Union (Circle U), and consistently is rated "Superior" by the American Institute of Baking each year.

"Many screeners require a lot of time-consuming tear-downs for cleaning, and that detracts from productivity," Cowles explains. "The design of this screener is really simple, which makes it easy to knock down and clean to our stringent requirements. The Compact Screener has an electropolish finish, which not only makes it easier to clean, but also makes it sanitary, which is very important in our business."

Cowles adds that while some screeners have commercial hardware such as nuts and springs exposed to the material being screened, the Russell unit does not, thereby eliminating the risk of hardware vibrating loose and entering the product stream.

Throughout the world, Russell Finex serves a variety of industries with applications including food, chemicals, adhesives, plastisols, paint, coatings, pharmaceuticals, metal powders and ceramics.

