



Gandhi Spices increases production of dry mango powder by 40% with the Finex Ultima™

The installation of the Finex Ultima™ with Russell Vibrasonic® Deblinding System enables increased screening capacities and consistent product quality within spices production line

For over 60 years, Gandhi Spices has been manufacturing, exporting and wholesaling spices in India, and is known for producing blends such as Meat Masala, Chole Masala, Kitchen King Masala, Kasuri Methi and Garam Masala. When faced with continuously increasing demand, Gandhi Spices sought to review the production process of one of their key ingredients to ensure increased output could be achieved without compromising product quality.




At their factory located in Rajkot, Gujarat, a rotary sifter was being used to screen dry mango powder, however the machine was unable to meet the required throughput rates. The company therefore turned to Russell Finex who supplied a **separation solution** capable of meeting the high throughput rates required, whilst ensuring consistent product quality. Mr. Sagar Dubal, Gandhi Spices Research and Development Manager, commented, "We needed to upgrade our plant with a sieving solution that helps us meet growing production demands and maintain high quality standards, and one capable of operating for long periods. We chose to work with Russell Finex because of the company's experience of working with food powders and other applications in the industry."

Dry mango powder, also known as amchoor, is a spice powder made from dried raw green mangoes. It is used to flavor food, often as a substitute for tamarind or lemon due to its sour taste, and is used in blends such as Chaat Masala and Curry Masala. Following the drying and grinding process, this fine raw mango powder must be sieved to remove any unwanted impurities and oversize material before packaging.

Previously, a rotary sifter was used at this stage. However, this traditional sieving machine is known to suffer from mesh blockage when sieving dense products such as dry mango powder. Mr. Dubal explained, "We were experiencing significant production downtime, as operators were often having to change the mesh due to agglomerates sticking to



Figure 1. The Finex Ultima™ installed at Gandhi Spices unit Rajkot

-  Eliminate oversize contamination and ensure machine hygiene
-  Maximizes throughput with greater accuracy
-  Fewer contact parts for tool free assembly and disassembly

the screen and causing blockages. Not only does this reduce output, but having to clean or change the screen so often can lead to product loss, or having to rescreen the whole batch again, which wastes product and time, and increases costs."



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Global Sieving & Filtration Specialists



With over 80 years' experience supplying high quality screening solutions to the food industry, Russell Finex assessed Gandhi Spices requirements and provided a high-performance sieving solution. Following successful trials, Gandhi Spices purchased the Finex Ultima™ fitted with a Russell Vibrasonic® Deblinding System.

The **Finex Ultima™** is designed with the food industry in mind, with a hygienic open frame design and high-quality stainless steel contact parts with crevice free welds allowing for easy cleaning. The unit can be fitted with up to 4 sieve decks, and can achieve high throughput rates whilst providing increased screening accuracy with full material flow on all decks. A unique rubber suspension assembly reduces noise levels and delivers maximum vibration to the sieve, providing improved output and quality.

The addition of the **Russell Vibrasonic® Deblinding System** ensures that the previous issues experienced with mesh blockages are eliminated. An ultrasonic frequency is applied to the mesh to break the surface tension and keep the mesh apertures clear of agglomerated powder, therefore reducing downtime to clean the mesh. Due to the elimination of mesh

blinding, product quality remains consistent throughout the entire production run.

The installation of this high-quality separation solution has enabled Gandhi Spices to achieve the desired throughput without compromising product quality. Mr. Dubal comments, "The Finex Ultima and Vibrasonic Deblinding System has helped us expand our dry mango powder manufacturing capacity, enabling us to achieve an impressive 40% increase in production compared to the previously used rotary sifters, whilst also upholding our final product quality."

Since 1934 Russell Finex has worked with global manufacturers in the food industry, supplying custom-built sieving and filtration solutions to meet specific requirements, improve product quality, enhance productivity and safeguard operators. Throughout the world, Russell Finex serves a wide variety of applications within the **food industry**, including spices, milk powder and chocolate, as well as other industries such as **pharmaceuticals, coatings, metal powder, ceramics, water processing, recycling** and many more.