



## Major coatings manufacturer upgrades its powder coatings process with a Russell Finex sieving solution

### Leading powder coatings manufacturer doubles its production rates using the Russell Compact Sieve® with ultrasonic deblinding system

A leading Indian paints and coatings manufacturing company plans to develop and optimize its powder coatings manufacturing facility. Established in 1945, the company is one of the largest producers of industrial paints, decorative paints, and powder coatings in the country.

Headquartered in South India, the company has more than 1000 customers in India & European countries from commercial transport, automotive, and general industries. Started with a manufacturing capacity of 20MT/month, the company is now a leading manufacturer of powder coatings in the country. The company manufactures three types of powder coatings, Pure Epoxy, Epoxy Polyester & Pure Polyester in various shades, gloss & finishes.




The powder coatings industry is expanding and is driven by the increase in industrialization and rapid urbanization. Indian powder coating industry has noticed a rise in demand from applications such as automotive, general industrial, and furniture. In order to meet the increasing demand and high-quality standards expected, the company has invested in a state-of-the-art manufacturing facility at its South India unit.

For the processing of its powder coatings, the company has installed processing and sieving equipment throughout its automated production lines. The company has taken the necessary steps to meet production demands, not only with capacity levels but also product quality, hygiene, and operator health and safety.

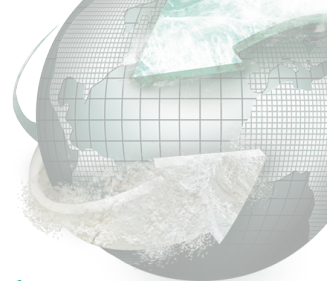
A recent investment in ultrasonic vibratory sieving technology helped the company to improve its product quality and throughput. A combination of Russell Compact Sieve® and Vibrasonic® Deblinding System efficiently sieves the fine powder, increasing throughput capacity and ensuring that the powder is free from contamination. The vibratory sieve, which is easy to strip down and clean between batches, also, therefore reduces downtime and increases productivity.



**Figure 1.** The Russell Compact Sieve® with Vibrasonic® Deblinding System is installed at the leading coatings company's plant

-  **Improve quality** – Eliminate oversized material from powders and liquids.
-  **Increase capacity** – Higher throughput than conventional vibrating screens
-  **Save space** – Compact solution fits within existing installations.

During the sieving of fine powders, the company were experiencing difficulties with its previous machinery due to not achieving the required throughput or quality. In order to solve this, the company looked for an efficient sieving solution and contacted Russell Finex for advice. Following a site visit by a Russell Finex sales engineer,



it was decided the installation of the Russell Compact Sieve® with an ultrasonic deblinding system would meet the requirements and give significant benefits.

Ideal for high-capacity sieving of powder coatings, the Russell Compact Sieve® is designed with the latest technology. Its unique rubber suspension system delivers optimized sieving performance whilst enabling quieter operation down to 70dBA. The low-profile design means that the Russell Compact Sieve® requires less headroom than conventional sieves, saving space on the production line and making it easier to strip down and clean.

The company installed the ultrasonic sieving solution unit below the cyclone and rotary airlock from where the sieved powder is collected and packed in boxes. With the installation of Russell Compact Sieve® and Vibrasonic® Deblinding System, the company was able to double its production capacity from 200 Kg/H to 400 Kg/H whilst providing 100% consistent product quality down to 100 microns mesh without any product losses. The company also saved a considerable amount of sieving time from its previous manual sieving solution, as with the previous machines the company was experiencing 30% loss of fine powder on oversized outlet which had to be re-sieved. But with the new ultrasonic sieve the company is achieving desired accuracy of the powder in a single process.

A senior officer from the maintenance department mentioned, "We are very happy with the quality and performance of the Russell vibro sifter. We are now achieving the desired throughput and a high-quality product. Previously we used to clean the mesh in every 2 hours to remove the choking, but now with the ultrasonic sieve there is no cleaning of mesh involved resulting into continuous production without downtime. Since 2007, we have installed three machines operating for 20 hours day, and we have never replaced the motors or the ultrasonic generator. Operator involvement has also reduced, and our process are running without the need for excessive manual handling, which saves us time and speeds up the production process."



**Figure 2.** Sieving of powder coatings with the Russell Finex ultrasonic sieving solution at the company

Established in 1934, Russell Finex designs and builds sieving and separation machines for an international market and supplies to over 140 countries. With its head office in the U.K. and subsidiaries in India, Belgium, the U.S.A. and China, the company has a truly global presence, enabling a comprehensive approach to customer service and after sales support. To find out more information on how the ideal solution can be found for your application, contact an experienced Russell sales engineer today.