

RUSSELL'S VIBRASONIC SEPARATORS IMPROVE PROCESS EFFICIENCY

Process efficiency and quality control in the production of bismuth powder have been substantially improved at the factory of Mining & Chemical Products Limited following the installation of two Europa 900 separators fitted with the Vibrasonic mesh debinding system, supplied by The Russell Finex Group

Part of an ongoing investment and modernisation programme at the ISO 9000 accredited company's plant, the new separators have been installed to meet the increasing demand for bismuth powder, which is one of the non-ferrous metal bi-products of copper and lead production and is supplied by the company for use in a wide range of industrial applications around the world.

Ensuring quality

The Vibrasonic separators are used for fines removal down to 50 microns, and ensure the quality of the metal powder by removing oversize particles at speeds of up to 70 kilos per hour. Speed is essential in the processing of bismuth powder to avoid the metal powder oxidising when it comes into contact with the atmosphere which renders it unusable.

This 'de-dusting' process takes place at the final production stage, after which the bismuth powder undergoes further quality testing before packing.

Eliminating mesh blinding

Screening efficiency is enhanced by the Vibrasonic system by its combination of ultrasonics with conventional vibration. An ultrasonic frequency, applied direct to the separator mesh using an acoustically developed transducer, breaks down surface tension, effectively making the stainless steel wires friction free.

This eliminates mesh blinding and enables users to maintain product consistency without needing to stop the machine to clean the mesh. It also provides exceptional precision, reduces downtime and gives a much longer screen life.



● **Ensure product quality**

● **Eliminate mesh blinding**

● **Improve productivity**

Improving productivity

Reports Kevin Godfrey, process manager at the Wellingborough site, "We have used Russell sieves successfully for many years but the new Russell Vibrasonic separators are really excellent and much faster than conventional separators. They have allowed us to significantly improve process efficiency, making our production line semi-automatic and because they save us man hours they also have a very quick pay-back period. And of course, they also allow us to achieve the consistently high standards of product quality and purity that are demanded by our customers.