



Adishiv Forge replaces rotary sifter with the Finex Ultima™ to achieve high quality screening of copper powders

Consistent product quality and reduced product wastage achieved with Russell Finex separation solution

Established in 1993, Adishiv Forge PVT Ltd. is one of the leading manufacturers of high quality components for the automotive industry. Supplying products such as engine bearings, brushes and bimetallic strips, the company has introduced modern powder metallurgy production methods into the manufacture of copper and brass products and exports these to over 55 countries around the world.

Adishiv Forge's manufacturing facilities in Rajkot and Metoda produce a wide range of components for light and heavy automotive engines and twin-drive motors, as well as compressors, refrigerators, air conditioners and other industrial equipment. The company prides itself on the quality of final products, which relies heavily upon the quality of metal powders used in their production.

Sieving copper powder is a major part of the manufacturing process, with copper commonly used to produce bearings and rods. Previously, Adishiv Forge used a rotary sifter for this part of the process. This traditional sieving machine was inconsistent in achieving the desired product quality, due to the fine metal powders sticking to and blocking the mesh screen, resulting in low flow rates and inconsistent product quality, whilst also causing damage to the mesh. Product wastage was also a great concern for the company. Due to the need to frequently disassemble the machine and clean the blocked screen, agglomerated powder would either be wasted or need to be screened again. As a result, the company sought a **sieving solution** which would help achieve the desired product quality and reduce product loss.

Mr. Mayur Patel, CEO at Adishiv Forge states, "With the increase in demand of our product in the market we needed a sieving solution which would help us achieve the desired product quality, whilst reducing product wastage, production time and costs. We contacted Russell Finex because of the company's reputation for providing high-performance sieving solutions for metal powders".



Figure 1. The Finex Ultima™ installed at Adishiv Forge Rajkot unit

- Prevents loss of good product and the need for re-screening
- Cost-effective and easy to stripdown and clean without using additional tools
- High capacity, accurate screening on up to 5 fractions in one operation

Russell Finex suggested the 30" twin deck Finex Ultima™ with mesh debinding system as the ultimate solution for their requirements. The company trialled the machine at Russell Finex's state of the art test facility, resulting in the decision to purchase the unit for their production plant.



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Global Sieving & Filtration Specialists



Mr. Patel states: "The Finex Ultima helps us to improve our product quality whilst reducing the loss of good product. In particular, the issues we were experiencing previously with mesh blockage have been addressed with the addition of the deblinding system."

The Finex Ultima™ is a versatile, high-performance **industrial sieving machine** capable of screening a variety of metal powders. Its unique rubber suspension transmits maximum vibration to the sieving area, resulting in high throughput as well as accurate sieving. The optional upgrade of the mesh deblinding system addresses issues faced when sieving fine metal powders, resulting in even higher flow rates and consistent product quality throughout the whole sieving process.

The addition of a mesh deblinding system resolved the previous issues experienced with blocked apertures. Rubber

balls with nylon sliders placed under the mesh screen provide movement to the mesh, ensuring fine particles do not stick to the apertures. This results in consistent product quality without damaging the mesh screen, as well as a reduction in product wastage.

For over 80 years, Russell Finex has designed and manufactured industrial separation and filtration solutions for a variety of industries including **metallurgy, food, pharmaceuticals, chemicals** and **coatings**. The company applies industry knowhow when developing its range of innovative products, guaranteeing product quality and enhancing productivity as well as protecting operator health and safety.