



Plast

Optimizing Plastic Production with Sesotec Metal Separation Systems at Viet UC Mechanics Polymer Co., Ltd.



Viet UC Mechanics
Polymer Co., Ltd
(Vietnam)

Product: RAPID VARIO

Viet UC Mechanics Polymer Co., Ltd. is a leading manufacturer of plastic materials in Vietnam, specializing in the production of masterbatch, plastic additives, pigments, PVC additives, and plastic resins. With years of experience and a deep understanding of the color industry, the company meets the needs of a wide range of customers whose mission is to elevate the global standard of the plastics industry and continuously increase the value of plastic products. Viet UC's products are used in various industries, particularly in construction, where plastics play an essential role, from flooring to insulation.

The Problem: Metal contamination jeopardizes product quality and production efficiency

Viet UC faced the challenge of eliminating metallic contaminants from masterbatch* to prevent particles from entering plastic mixtures during production. These contaminants could not only compromise the quality of the final product but also lead to machine downtime and customer complaints.

To ensure the quality and purity of their products, they needed a reliable metal separator capable of detecting and removing even the smallest metallic particles (ferrous 0.39 mm, non-ferrous 0.5 mm, stainless steel 0.5 mm).

Additionally, they needed to ensure the solution would work effectively even with challenging product effects like dark colors, especially black masterbatch.

*Masterbatch is a concentrated mixture of plastics used as an additive in plastic processing. It contains colorants or other additives, such as fillers, antistatic agents, or UV stabilizers. Masterbatch is used to modify the properties of the final product or achieve specific colors by being added to the base material in low concentrations.

The Solution: Sesotec RAPID VARIO ensures reliable and precise metal separation

After a thorough market analysis, Viet UC chose to implement Sesotec's RAPID VARIO metal separator. The RAPID VARIO was specifically designed to detect and remove metallic contaminants in bulk materials, even when these contaminants are embedded deep within the product. The unit is known for its high sensitivity, easy integration into existing production lines, and reliable performance.



Sesotec's solution included a feature that automatically or manually adjusts to various product effects such as electrical conductivity and color variations (e.g., black material). In the plastics industry, masterbatch can contribute to product effects, as some additives or fillers make detecting metal contaminants more difficult or can interfere with the detector.

Metal detectors and separators like the RAPID VARIO are designed to be sensitive enough to detect metal contaminants while minimizing the impact of product effects. These systems were installed at Viet UC before packaging into 25-kg bags to ensure consistent metal-free products. The first unit was installed in September 2023, followed by a second unit in May 2024.

Customer Benefit: Improved product quality, increased customer trust, and enhanced processes through Sesotec technology

The implementation of the RAPID VARIO metal separator has paid off for Viet UC in many ways, especially since the company places great emphasis on quality assurance.

First, product quality has significantly improved, leading to increased customer satisfaction. Returns and complaints due to metal contamination are now a thing of the past. Additionally, potential machine damage and costly production downtime were avoided due to the reliable detection and removal of metal particles.

Viet UC plans to continue investing in recycled materials such as PP and HDPE and plans to use Sesotec equipment to inspect these new product lines as well. This partnership with Sesotec supports the company's vision of expanding globally and meeting the highest quality standards. „By installing the RAPID VARIO metal detector, we have significantly enhanced the quality of our masterbatch products. Our customers now have full confidence in the purity of our deliveries. Sesotec has helped us not only optimize our internal processes but also improve our reputation with end customers.“ – Mr. Nguyen Van Phuong, Technical Director at Viet UC Mechanics Polymer Co., Ltd. In summary, Sesotec's solution has not only optimized Viet UC's production processes but also brought long-term benefits for the business and customer relationships.

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Sesotec - an overview

The Sesotec group is one of the leading manufacturers of machines and systems for contaminant detection and material sorting. Product sales primarily focus on the food, plastics, and recycling industries.



Metal detection systems



X-ray inspection systems



Sorting systems



Magnet systems