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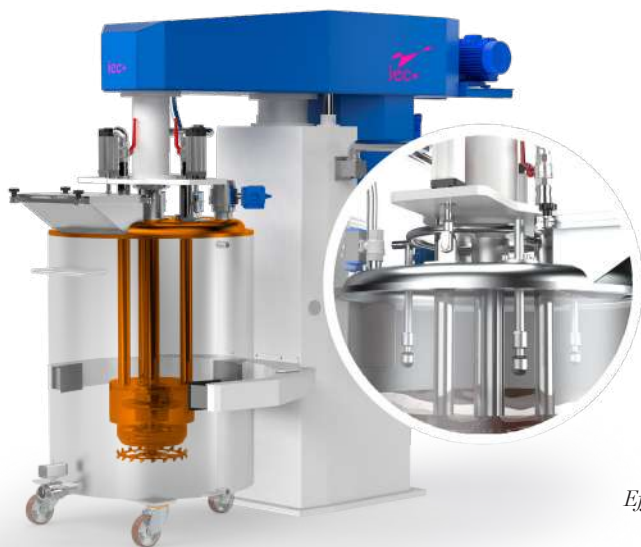
Equipment

IM Group



BEAUTY SECTOR'S PARADOXICAL RACE TO
PACE WITH GEN Z AND EVOLVING TECH

PLUSMILL EVO: ADDRESSING KEY CHALLENGES IN PIGMENT PROCESSING



PLUSMILL EVO

Effortless Cleaning

The industrial manufacturing landscape is constantly evolving, with businesses facing increasing pressure to enhance efficiency while maintaining product quality. In the pigment processing sector, these challenges are magnified, as manufacturers must contend with intricate production processes that often involve multiple machines, substantial downtime, and potential contamination risks. In response to these industry challenges, IEC+ of IM GROUP's Filling, Mixing, and Grinding business unit has introduced the Plusmill Evo—a machine designed to streamline pigment processing through integrated solutions.

Understanding the Industry Landscape

As the demand for high-quality pigments continues to grow, manufacturers are tasked with improving their operations to stay competitive. Traditional methods of pigment processing often require separate grinding and dispersion stages, resulting in increased production times and a more complex workflow. Moreover, issues such as flocculation and colour distortion can arise from inadequate mixing and prolonged processing, impacting the final product's quality and increasing costs.

The pigment processing industry is at a crossroads, with the push towards sustainability and efficiency becoming paramount. Manufacturers face not only the challenge of meeting rising customer expectations but also adhering to stricter regulations regarding environmental impact. As such, the need for innovative solutions that can help streamline operations while minimising waste is more critical than ever.

Challenges such as these prompted IEC+ to explore innovative solutions that would not only enhance productivity but also address the broader needs of the industry.

"Our goal was to create a system that could integrate key processes while prioritising efficiency and cleanliness," said Gianluca Incerti, Head of Strategic Sales at IEC+ and Tecnopails.

The Development Journey of Plusmill Evo

The Plusmill Evo was conceived out of a necessity to simplify the pigment processing workflow. By integrating the grinding and dispersion functions into a single unit, the Plusmill Evo effectively aims to reduce the number of machines needed on the production floor. This approach not only minimises the physical footprint of

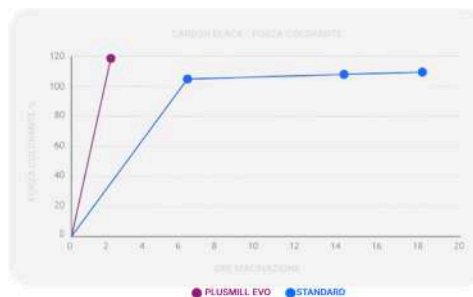


Plusmill Evo Faster Grinding

Faster grinding

Its speed increases productivity without compromising quality.

We've reached an approximately 70% reduction in processing time for targeted tasks through meticulous comparative testing.



Plusmill Evo Faster Grinding

production equipment but also addresses the challenges of manual intervention, which can lead to downtime and the potential for contamination between batches.

The development of Plusmill Evo involved extensive research and development, where engineers worked closely with industry experts to identify the most pressing needs in pigment processing. The result is a machine that is not only efficient but also robust and versatile, capable of handling a wide range of materials and applications.

Key Features Addressing Industry Needs

- 1. Time Efficiency:** The integration of processes means that manufacturers can expect a 70% reduction in processing time for specific tasks. This is particularly important in an era where time-to-market can be a decisive factor for success.
- 2. Quality Assurance:** With its advanced Cowles Impeller Technology, the Plusmill Evo ensures thorough mixing of pigments, which mitigates the risk of colour distortion and enhances the consistency of final products. This is crucial for manufacturers who require high precision in their colour formulations.
- 3. Operational Safety:** The compact, enclosed design of the Plusmill Evo not only protects operators but also reduces accident risks associated with traditional open systems. The automated cleaning feature also prevents solvent vapour emissions, promoting a safer working environment.
- 4. Automated Process Integration:** The machine is designed to seamlessly integrate automated processes for loading liquids and pigments, which enhances operational convenience and reduces operator fatigue. This feature allows for more focused operations and a more streamlined workflow.
- 5. Versatility in Production:** The Plusmill Evo can serve as a pre-grinding unit in continuous processes, maximising efficiency and throughput. This adaptability makes it suitable for a range of production environments, from small batch to large-scale operations.

Industry Implications and Future Outlook

The introduction of the Plusmill Evo is a significant milestone for the pigment processing industry. As manufacturers look to optimise their operations, the benefits of adopting such integrated solutions become increasingly apparent. With reduced operational complexity, enhanced product quality, and improved safety measures, businesses that invest in the Plusmill Evo can expect to see both immediate and long-term advantages.

Moreover, as the industry continues to adapt to evolving market demands, the Plusmill Evo positions itself as a forward-thinking solution that not only meets today's challenges but also anticipates future needs. The ongoing focus on sustainability and efficiency in manufacturing makes innovations like the Plusmill Evo essential for companies aiming to maintain a competitive edge.

Market Trends

In addition to operational efficiency, market trends indicate a growing emphasis on sustainable practices within the pigment processing industry. Companies are being urged to reduce their environmental impact by minimising waste and utilising resources more effectively. The Plusmill Evo's design and operational capabilities align well with these trends, as it promotes cleaner production processes and reduces material wastage.

Sustainability in Pigment Manufacturing

The ink industry is increasingly focused on sustainability, driven by regulatory pressures and consumer demand for eco-friendly products. Many companies are adopting strategies to reduce their environmental impact, such as transitioning from fossil fuels to renewable energy sources and implementing zero liquid discharge (ZLD) systems to minimise wastewater. Pigment manufacturers, in particular, are under pressure to develop sustainable materials, including using bio-based raw materials that can lower CO₂ emissions while maintaining performance standards.

Moreover, there's a significant push towards developing sustainable pigments that meet compostability standards for packaging, ensuring that ink components do not contaminate composting processes. Collaboration across the supply chain—from pigment suppliers to brand owners—is essential to effectively address sustainability metrics and validate claims about the environmental benefits of these products.

Conclusion

The Plusmill Evo by IEC+ represents a thoughtful response to the complexities of pigment processing in modern manufacturing. By addressing the industry's pressing challenges, IEC+ has created a machine that not only simplifies production workflows but also enhances quality and safety. As businesses navigate the intricacies of pigment manufacturing, solutions like the Plusmill Evo are set to play a pivotal role in shaping the future of the industry.

In summary, the Plusmill Evo is more than just a new machine; it is a comprehensive solution that meets the evolving needs of manufacturers, offering significant benefits in productivity, quality, and safety. As the market continues to grow, the Plusmill Evo positions itself as an indispensable tool for businesses seeking to thrive in a competitive landscape.

About IEC+

IEC+, which joined IM GROUP (formerly Inkmaker Group) in late 2021, specialises in the design and production of customised automated systems for dosing, sealing, and labelling for ink, paint, and chemical containers. Together with the Tecnopails filling-line division, it forms IM GROUP's Filling, Mixing, and Grinding business unit.

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