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Press Release**Coperion at the 2025 Battery Show Europe****Future of Energy: Technologies for Improved Efficiency in Battery Production**

Stuttgart, June 2025 - At this year's Battery Show Europe (3-5 June, 2025, Stuttgart/Germany), Coperion will be presenting key technologies for efficient battery manufacturing — from individual components to complete systems — at Booth 10-C51 in Hall 10. Along with feeding and conveying solutions, Coperion will focus on continuous manufacturing of electrode masses using wet or dry process with twin screw extruders.

Continuous manufacturing of dry coated electrodes as key to greater profitability

Manufacturing electrode masses in a continuous process with Coperion's ZSK twin screw extruder can optimize the process significantly. Automated processes ensure even product flow with reduced space and personnel requirements. With its highly dispersive and distributive mixing properties, the ZSK extruder provides higher homogeneity and thus higher product quality, even when adding difficult-to-mix ingredients.

Electrode manufacturing can be accomplished in the extruder using either wet or dry coating processes, whereby the latter provides clear advantages. By doing away with watery or organic solvents, not only do production costs drop, but the energy-intensive drying step is eliminated as well — the powdered or granular coating material is applied directly to the conductor foil following the mixing process. In battery electrode manufacturing, the dry coating process thus represents a markedly more efficient and economical alternative.

June 2025

Coperion's ZSK Extruder, together with a new Coperion K-Tron feeder under development especially for this process, provides an ideal technical solution for dry coating. This new feeder will be used in between the mixing process and the calender, distributing the homogeneous mass continuously and reliably evenly within the calender gap. For the dry coating process, the twin screw extruder is particularly fitting because it allows for simultaneous fibrillation of special binders and homogenization of raw materials. The shorter residence time in the extruder as well as the flexibility in applying thermal energy to the product or removing it from the product by controlling the temperature of individual barrel elements are but a few more advantages of this technology.

Coperion material handling solutions also meet the specific requirements throughout the entire dry coating process. From conveying and feeding to the extruder as well as the handling of the coating mass that follows, temperature windows must be strictly maintained. To this end, Coperion and Coperion K-Tron offer specially outfitted equipment, ensuring that both handling and feeding of the binder can be carried out at defined temperatures.

"In various trials, customer projects and development initiatives, we have clearly demonstrated the advantage of producing electrode slurries through continuous processes using twin-screw extruders. Especially with the highly precise feeding and conveying solutions associated with these systems, we provide the market with technologies necessary for the efficient and cost-effective production of batteries. Moreover, with our comprehensive Test Centers worldwide, we can show that our technologies solve manufacturing challenges," said Nick Giefer, Batteries Business Unit Leader at Coperion.

About Coperion

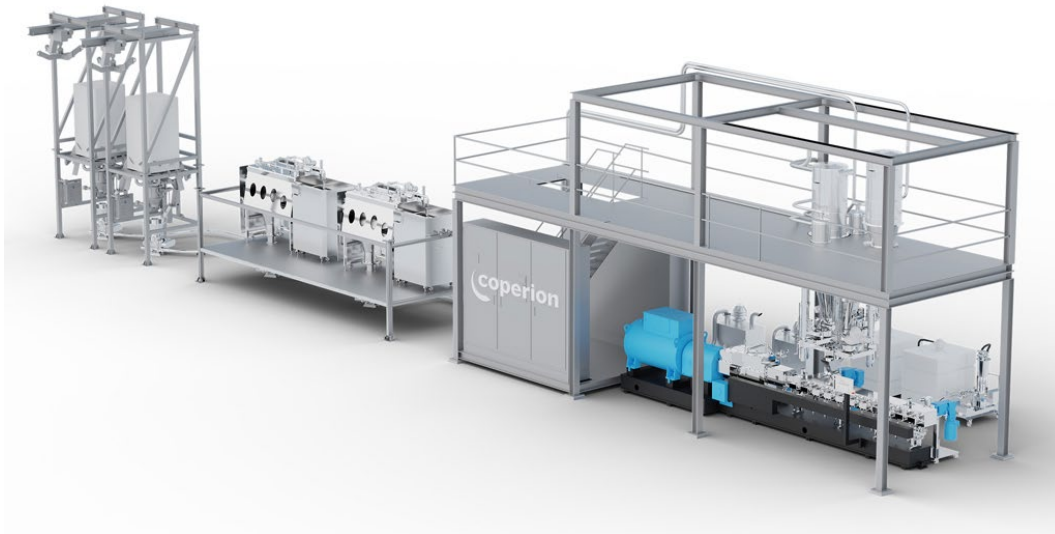
Coperion (www.coperion.com) is a global industry and technology leader in compounding and extrusion systems, size reduction, washing, separating, drying, agglomeration, feeding, weighing, material handling and pneumatic conveying systems, as well as milling, mixing, thermal processing, dust collection and other services. Coperion develops, produces, and services plants, machinery, and components for the plastics and plastics recycling, chemical, battery, minerals, food and pharmaceutical industries. Coperion employs more than 5,000 people in its three divisions, Performance Materials, Food, Health & Nutrition, and Aftermarket Sales & Service - at over 50 sales and service locations worldwide. Coperion is an Operating Company of Hillenbrand (NYSE: HI), a global industrial company that provides highly-engineered, mission-critical processing equipment and solutions to customers serving a wide variety of industries around the world. www.hillenbrand.com

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<https://www.coperion.com/en/news-media/newsroom/>

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The continuous production of electrode masses using a ZSK twin-screw extruder with appropriate feeding and conveying systems can be implemented in both wet and dry coating processes, offering manufacturers significant potential for optimization.

Photo: Coperion, Stuttgart/Germany