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Press release

Coperion and Coperion K-Tron at the Battery Show Europe

Continuous extrusion of battery materials to a high, reproducible quality standard

Stuttgart, April 2019 – At the Battery Show Europe 2019, taking place in Stuttgart, Germany, from May 7 to 9, Coperion and Coperion K-Tron will be exhibiting technology solutions for the continuous production of cathode and anode masses, as well as separator films. The focus at the Coperion booth 1032 in hall 1 is on the ZSK twin screw extruder whose process section will be on show together with a gravimetric feeder of Coperion K-Tron. Raw materials such as active materials, binding agents, conductive carbon blacks and fluids are fed either separately or in the form of premixes into the process section of the extruders using highly accurate Coperion K-Tron feeding systems. Conveying, mixing, shearing and the homogenization essential for obtaining products of a consistently high and reproducible quality standard take place in different processing zones in the extruder.

According to Oliver Beiser, Business Segment Manager Chemical Applications at Coperion, "Our ZSK twin screw extruder, combined with our Coperion K-Tron feeders, is a reliable processing system with a proven record of success on the market. The highly flexible design means that it can be ideally configured for the various process tasks involved in the production of battery materials. Its reliability, long service life and wide range of properties guaranteeing top product quality all add up to a perfect technology for this future-oriented market."

Universal high-performance extruder

With all the benefits of a development history spanning more than 60 years, today's ZSK twin screw extruder from Coperion is an universally applicable high-performance system for the processing of raw material mixtures, achieving throughput rates of between 200 g/h and 125 t/h with screw diameters of 18 mm to 420 mm. The modular process section of the extruder is



April 2019

made up of a series of barrels containing the co-rotating screws. This design principle ensures maximum adaptability of the system to suit the task concerned. The extruder, the feeding system and the discharge technology from Coperion form a complete unit, both for start-up of the systems and during operation. Important parameters are constant over all sizes of the respective systems. In this way we ensure reliable scale-up from the knowledge gained in the laboratory to full-scale production plants.

Due to the often abrasive and sometimes toxic properties of the raw materials being processed, the parts of Coperion systems that come into contact with the product are made of materials offering particularly high resistance to wear. This makes it possible to avoid contamination of the end product from detached metal particles over the long term, even when processing ultra-hard silicon carbides. Dust-proof versions of the feeding and refill systems for the raw materials are also available if required. In all these respects, Coperion draws on many years of experience as a supplier of extrusion systems for pharmaceutical applications. On top of that, ZSK plants for making battery masses are designed to conform to the stringent explosion-protection regulations.

Coperion is the international market and technology leader in compounding and extrusion systems, feeding and weighing technology, bulk materials handling systems and services. Coperion designs, develops, manufactures and maintains systems, machines and components for the plastics, chemicals, pharmaceutical, food and minerals industries. Within its four divisions – Compounding & Extrusion, Equipment & Systems, Materials Handling and Service – Coperion has 2,500 employees and nearly 30 sales and service companies worldwide. Coperion K-Tron is part of the Equipment & Systems division of Coperion. For more information visit www.coperion.com or email info@coperion.com.

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April 2019



The modular ZSK twin screw extruder from Coperion is suitable for the production of a wide range of different battery materials.

Photo: Coperion, Stuttgart



April 2019



If required, Coperion K-Tron can provide dust-proof versions of the feeding systems used for the infeed of raw materials into the ZSK extruder.

Photo: Coperion, Stuttgart