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#### **Press Release**

Coperion and Coperion K-Tron at the European Coatings Show 2019

# Smart Feeding and Extrusion Technology Ensures Maximum Productivity in Powder Coating Manufacturing

Stuttgart, February 2019 – At this year's European Coatings Show (19-21 March 2019, Nuremburg, Germany), Coperion and Coperion K-Tron will present their reliable, high-quality extrusion technology for manufacturing powder coatings. At its core is the Coperion ZSK twin screw extruder that, thanks to its outstanding mixing characteristics and gentle product handling, ensures absolutely homogeneous distribution of coating components throughout the powder and thus highest quality powder coating production. In order to introduce raw materials with process reliability into the ZSK process section, Coperion offers the side feeder ZS-B easy whose very low cleaning times set it apart from the competition. Visitors can see the ZS-B easy at Coperion's booth (6-350, Hall 6) at ECS 2019. Moreover, a highly accurate Coperion K-Tron Quick Change Twin Screw Feeder with the intelligent ActiFlow™ bulk solid activator will be on display. It is optimally designed for ZSK technology, works with high accuracy, and is easy to clean.

### Sophisticated ZSK Technology

Twin screw extruders from Coperion distinguish themselves with high achievable throughput rates at very good product quality, as well as with their longevity. In the last 40 years, Coperion has realized over 800 twin screw extruders for powder coating manufacturing, all the while continuously optimizing the technology.

The ZSK extruder process section features a modular design. It consists of multiple sections of barrels in which the two screws rotate in the same direction. The configuration of the barrels



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and screw elements is individually designed for each powder coating formulation, and can easily be modified for future formulations. The ZSK extruder's design focus rests on closed surfaces that are easy to clean. The process section is clad with removable covers. A separate covering is located at the product discharge for the screw tips, thus enabling rapid screw changes.

Depending upon the properties of the raw materials to be fed, the ZS-B side feeder may be used. It functions like a small extruder and even leads material with low bulk density into the extruder process section with process reliability. Recently, Coperion introduced an optimized design of its side feeder to the market with the ZS-B easy, which will be on display at its ECS booth (6-350, Hall 6). The ZS-B easy can be dismantled much more quickly from the ZSK process section and its twin screws can be exchanged very easily. Time required for cleaning, for example when changing formulations, drops markedly.

### **Reliable, Flexible Feeding of Powder Coating Components**

The Coperion K-Tron T35/S60 Quick Change Feeder (QC), which will be available to view at ECS, is designed especially for applications requiring maximum flexibility in feeding and material changes. The QC feeder allows for the removal of the entire feeding module with screws in place for replacement with a second unit. The removed feeding module can then be transported to a cleaning facility and prepared for its next use. The S60-QC single screw feeding unit is especially well suited for free-flowing powder as well as for numerous other free-flowing bulk materials. The T35-QC twin screw feeding unit is used for floodable powders and more difficult, sticky or poorly flowing materials. Thanks to the highly accurate D5 platform scale with patented SFT weighing technology, the KCM feeding control ensures that the exact quantity is correctly fed for maximum end product quality and minimum product loss.

The intelligent ActiFlow<sup>™</sup> bulk solids activator offers an innovative method to reliably prevent bridging and rat-holing of cohesive bulk materials in stainless steel hoppers without internal hopper agitation. ActiFlow<sup>™</sup> works with no product contact and can be installed in any Coperion K-Tron gravimetric feeder. With a patented vibration drive and intelligent control technology, bulk material is kept in continuous motion at an optimized frequency and amplitude inside the hopper without exercising mechanical forces upon it.



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## **Control Solutions for Extrusion Systems**

Coperion realizes control solutions for powder coating extrusion systems in house, beginning with standard controls in compact design and extending to tailor-made, open control systems for turnkey plants. The controls can be integrated into customer-side Industry 4.0 environments with no difficulty and offer numerous standard basic functions, such as seamless production data recording and informative reports. Using ServiceBox, Coperion offers remote service for its machines. With this tool, the Coperion service team can acquire secured internet access to extrusion systems and analyze disruptions, evaluate them, and usually remedy them quickly, thus increasing the machines' already high availability anew.

Coperion (<u>www.coperion.com</u>) is the global market and technology leader for compounding systems, feed systems, bulk goods systems, and services. It develops, produces, and services plant, machinery, and components for the plastics, chemical, pharmaceutical, food, and minerals industries. Coperion employs 2,500 people worldwide in its four divisions Compounding & Extrusion, Equipment & Systems, Materials Handling, and Service, as well as in 30 sales and service companies. Coperion K-Tron is part of the Equipment & Systems division.

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The ZSK 43 Mv PLUS compact twin screw extruder from Coperion is designed especially for powder coating manufacturing. It is equipped with closed surfaces, thus ensuring easy cleaning. *Image: Coperion, Stuttgart* 



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Quick Change Feeders from Coperion K-Tron offer high flexibility when changing recipes in powder coating manufacturing. Image: Coperion K-Tron, Niederlenz, Switzerland