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#### **Press Release**

# **Coperion at Chinaplas 2025**

# Technologies for Closing the Loop in Plastics Compounding and Recycling

Stuttgart, April 2025 – At this year's Chinaplas (15-18 April 2025, Shenzhen World Exhibition & Convention Center (Bao'an), PR China) Coperion will present key technologies for the entire process chain of processing plastics and recycling at booth 10K25 in hall 10.

Coperion will showcase two extruders that are ideally suited to current challenges in plastics compounding and recycling. The 4th generation STS 75 Mc PLUS twin screw extruder features an increased specific torque of 13.6 Nm/cm³, enabling it to achieve up to 20% more throughput with significantly higher product quality. A ZSK 58 Mc¹8 twin screw extruder with maximum torque for highest throughput demands, especially designed for products with high torque requirement such as engineering plastics, will also be on display. In addition, Coperion will highlight its reliable and highly accurate feeding solutions, including the Coperion K-Tron T35 gravimetric feeder paired with a 2415 vacuum receiver for ingredient refill, as well as a C/S-LW-NS 60 single screw feeder from Colormax Systems. A ProRate PLUS-M feeder, part of the new line of robust gravimetric single and twin screw feeders, will be on display as well. For efficient conveying processes, a CVH 550 high pressure rotary valve and the two-way diverter valve WEK 265 for granulates will also be shown.

For the recycling of plastics Coperion and Herbold Meckesheim collaborate to provide operators with extensive expertise in technology and process solutions. At Chinaplas, they will showcase a virtual 3D recycling installation. Visitors to the booth will have the opportunity to explore key



components of the recycling set up, allowing them to observe the technical details of each process step and the high efficiency of each component.

### STS Mc PLUS Extruder: Economic and Efficient Solution for Various Applications

Over the years, the STS extruder series has established itself on the market as a quality product for a wide range of extrusion and compounding tasks such as engineering plastics and masterbatch but also cable masses, the recycling of regrind plastics, powder coating, and much more. The extruders are produced at Coperion in Nanjing, China, in accordance with CE guidelines and the highest Coperion standards of quality. They are distinguished by their very attractive price-to-performance ratio.

The STS 75 Mc PLUS presented in the Coperion booth 10K25 is the 4<sup>th</sup> generation of STS technology and is equipped with a specific torque of 13.6 Nm/cm³ at screw speeds of up to 900 min⁻¹. This advancement allows the compounder to deliver enhanced product quality while increasing throughput by up to 20% across all applications compared to earlier models. Key to this performance boost, alongside process-related modifications, is the optimization of the drive's key components. The STS 75 Mc PLUS extruder features a high-power motor and a gearbox specifically designed to handle high torque. Proven high-performance materials are used for the screw shafts to ensure effective torque transmission from the gearbox to the screw elements. The higher fill level in the process section is crucial to the improved compound quality achieved by the STS 75 Mc PLUS, as it reduces both shear stress and melt temperature while enhancing mixing behavior. This results in an exceptionally gentle product handling at high throughputs.

# ZSK Mc<sup>18</sup> Extruders: Made for Highest Demands

Visitors to the booth can also learn more about the advantages of the renowned ZSK extruder series. These high-performance extruders such as the ZSK 58 Mc<sup>18</sup> on display achieve the highest throughput rates and maximum economic efficiency. The extruder with a specific torque of 18 Nm/cm<sup>3</sup> is characterized by its consistently high throughput capacity with first-class product quality. With the assembly in China, Coperion is able to react as fast as possible to customer demand. Customers benefit from local added value, transport and tax savings as well as from shorter delivery times.



# **Complete Plastics Recycling Plants from a Single Source**

Coperion and Herbold Meckesheim realize plants for a wide variety of plastics recycling applications, excelling in their reliability and the high product quality they achieve. From mechanical processing – shredding, washing, separating, drying and agglomerating of plastics – to bulk material handling as well as feeding and extrusion all the way to compounding and pelletizing, such plants cover the entire plastics recycling process chain. Together, Coperion and Herbold Meckesheim offer solutions for different recycling processes such as mechanical recycling of post-industrial and post-consumer waste, chemical recycling, PET recycling or solvent-based recycling.

Especially for recycling of post-consumer recyclate (PCR) or any highly contaminated polymer, Coperion offers the innovative ZSK FilCo filtration compounder that allows filtration and compounding in a single production step. Compared to the two-step production lines that have been the norm until now, Coperion's ZSK FilCo is distinguished by a markedly more streamlined equipment set-up. Energy consumption and emissions for the extrusion process are reduced by more than 50%.

#### Robust, Flexible and Precise Feeding Solution: ProRate PLUS

The ProRate PLUS feeder line integrates state-of-the-art European weighing technology and controls, ensuring high accuracy and reliability in loss-in-weight feeding processes. This line meets the growing demand for robust and efficient feeding solutions in the plastics industry. The ProRate PLUS continuous gravimetric feeder line is an economical solution and offers a quick return on investment due to its good price-performance ratio and fast delivery times.

The ProRate PLUS feeder line features a space-saving trapezoidal shape which allows up to six feeders to be easily grouped around an extruder inlet within a 1.5 meter [5 ft] radius. Three single screw feeder models PLUS-S, PLUS-M and PLUS-L along with the PLUS-MT twin screw model cover a wide range of throughputs and bulk materials. ProRate PLUS feeders are capable of handling feed rates from 3.3 up to 4800 dm³/h [0.12 up to 400 ft³/h], depending on the material. Theoretically, a feeding system with six ProRate PLUS-L feeders can feed up to 28.8 m³/h [1017 ft³/h] on a footprint of only 7 m² [75 ft²].



# **Smart Feeding Solutions**

In addition, Coperion will demonstrate its expertise in all feeding tasks at this year's Chinaplas with its high-accuracy Coperion K-Tron K2-ML-D5-T35 gravimetric feeder equipped with ActiFlow™ smart bulk solid activator and EPC (Electronic Pressure Compensation). The feeder is equipped with a 2415 vacuum receiver for refill.

The ActiFlow™ smart bulk solid activator offers an innovative method to reliably prevent bridging and rat-holing of cohesive bulk materials in stainless steel hoppers without internal hopper agitation. The smart flow aid applies gentle vibrations to the hopper wall, hereby carefully activating the contained material with the optimal amplitude and frequency, automatically adjusted by the controller based on bulk material flow. It is designed specifically to work with Coperion K-Tron's line of gravimetric loss-in-weight feeders.

# All-around worry-free service

Coperion conducts its intensive research & development work both for new plants and for their integration into existing systems. For this purpose, Coperion offers comprehensive maintenance and modernization packages for all its technologies, which increase the productivity, flexibility and reliability of the plants to a significantly improved level. Such services allow plant operators to fully exploit the improved performance potential of the plant after shortest time.



#### **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 Coperion STS 75 Mc PLUS twin screw extruder achieves up to 20% greater throughput with improved product quality, at an increased specific torque of 13.6 Nm/cm<sup>3</sup>.

Photo: Coperion, Stuttgart Germany



The reliability of plastics recycling machinery from Coperion and Herbold Meckesheim excels, achieving very high recyclate product quality.

Photo: Coperion, Stuttgart Germany





The ProRate PLUS feeder line features a space-saving trapezoidal shape which allows up to six feeders to be easily grouped around an extruder inlet within a 1.5 meter [5 ft] radius.

Photo: Coperion K-Tron, Switzerland