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Press Release

Coperion and Herbold Meckesheim at Chinaplas 2023

Pioneering technologies for the compounding and recycling of plastics and for the production of bioplastics

Stuttgart, March 2023 – At this year's Chinaplas (April 17-20, 2023, Shenzhen, P.R. China) Coperion GmbH, Stuttgart/Germany will be presenting itself as a technology provider for a wide range of forward-looking applications in the processing of plastics. With an extensive installed base, Coperion is considered an expert in the recycling of plastics as well as in the production of bioplastics. Coperion will bring its expertise in plastics recycling to life at its Booth 10K31 in Hall 10 with a virtual complete system for recycling PET. This plant allows a look inside numerous key components from Coperion and recently acquired partner Herbold Meckesheim, with whom Coperion now offers complete systems for plastics recycling.

In addition, Coperion will be demonstrating its expertise in conventional compounding systems at Chinaplas 2023. Coperion will show a ZSK 58 Mc¹⁸ twin screw extruder with a Coperion K-Tron K-ML-SFS-KT20 twin screw feeder, as well as the STS 25 Mc¹¹ laboratory extruder with a C/S-LW-NT28 twin screw feeder from Colormax Systems. In addition, the Coperion K-Tron quick-change feeder T35-QC will be on display together with a 2415 vacuum receiver for ingredient refill, as well as the comprehensive service offering on all Coperion technologies and equipment.

Enhanced plastics compounding, recycling and processing of bioplastics

At this year's Chinaplas, Coperion will be presenting the versatile and efficient processing applications of its ZSK and STS twin screw extruders as well as its engineering expertise in

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groundbreaking applications such as the recycling of plastics and the production of bioplastics. A ZSK 58 Mc¹⁸ twin screw extruder with a specific torque of 18 Nm/cm³ will be on display, characterized by its consistently high throughput capacity with first-class product quality. It has been locally assembled at Coperion's manufacturing site in Nanjing, China. 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. Even after-sales services are customized to local parts and needs. The ZSK 58 Mc¹⁸ extruder will be outfitted with a Coperion K-Tron K-ML-SFS-KT20 twin screw loss-in-weight feeder.

In addition to compounding and recycling, Coperion extruders are suitable for the production of bioplastics. This process places very high demands on the extrusion system due to the diversity of base polymers being used and the variety of recipes. Coperion has already realized numerous systems for the production of bioplastics and therefore has comprehensive engineering know-how in designing the process steps needed to achieve the required mechanical properties of the bioplastic end product.

The STS 25 Mc¹¹ laboratory extruder that Coperion will show at Chinaplas, has a 25 mm screw diameter and features a simple design. It is operator-friendly and easy to clean. By having the same screw diameter ratio D_o/D_i of 1.55 and the same maximum specific torque Md/a^3 of 11.3 Nm/cm³ as the entire STS Mc¹¹ extruder series, production parameters can be reliably scaled up to a larger STS model. To extend the process window, Coperion has increased the screw speed of the STS 25 Mc¹¹ to 1,200 min⁻¹. This way the laboratory extruder is ideally suited for recipe development and basic scientific research with small batch sizes of 2 kg and achieves throughput rates of up to 110 kg/h. The STS 25 Mc¹¹ which Coperion will exhibit at Chinaplas will be shown with a Colormax Systems C/S-LW-NT28 twin screw loss-in-weight feeder.

Complete plastics recycling plants from a single source

Together, Coperion and Herbold Meckesheim realize entire plants for plastics recycling. 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, their systems cover the entire process chain for reclaiming plastics.

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Coperion and Herbold Meckesheim achieve solutions for mechanical recycling of post-industrial and post-consumer waste, chemical recycling, solvent-based recycling, and deodorization, tailored to the type of plastic being recycled. Together, they will be showing a PET recycling plant simulation at Chinaplas, demonstrating their expertise in numerous plastics recycling processes. Booth visitors can look directly into the process steps and view the construction and functionality of key technologies.

Coperion K-Tron feeders for maximum flexibility

Also on display will be a high-accuracy Coperion K-Tron K2-ML-D5-T35/S60 quick change feeder, featuring the ActiFlow™ smart bulk solid activator and Electronic Pressure Compensation (EPC) in combination with a 2400 Series vacuum receiver for refill. The T35/S60 quick change feeder (QC) on display is designed for applications requiring quick changeover of materials and convenience of fast cleaning. The QC feeder allows for fast removal of the entire feeding module with screws in place for replacement with a second unit. Twin and single screw feeding modules are available.

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. It is designed specifically to work with Coperion K-Tron's line of gravimetric loss-in-weight feeders.

2400 Series vacuum receivers provide a high-capacity sequencing system primarily used where larger conveying rates or long distances are required, in applications with one or multiple destinations. They are designed to high quality standards for pneumatically conveying powder, pellets and granular materials for most industries. Conveying rates range from 327 to 6,804 kg/h (720 to 15,000 lb/h). The 2415 pellet receiver will be on display at Chinaplas 2023.

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

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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 the global market and technology leader in compounding systems, feed systems, bulk goods systems, and services. Coperion develops, produces, and services plants, machinery, and components for the plastics, chemical, pharmaceutical, food, and minerals industries. Coperion employs 2,500 people worldwide in its two divisions: Polymer and Strategic Markets and Aftermarket Sales and Service, as well as its 30 sales and service companies. Coperion K-Tron is a Coperion brand.

About Herbold Meckesheim

Herbold Meckesheim (www.herbold.com) is a leading recycling specialist and produces machines and plants for processing pure plastic waste from the industry as well as used, mixed and contaminated plastics. The modular system solutions for automated recycling lines are tested in the company's own technical center. More than 240 employees at the headquarters and the staff of the international agencies accompany custom-made plants and machines from the conception stage through commissioning to the end of their commercial use.

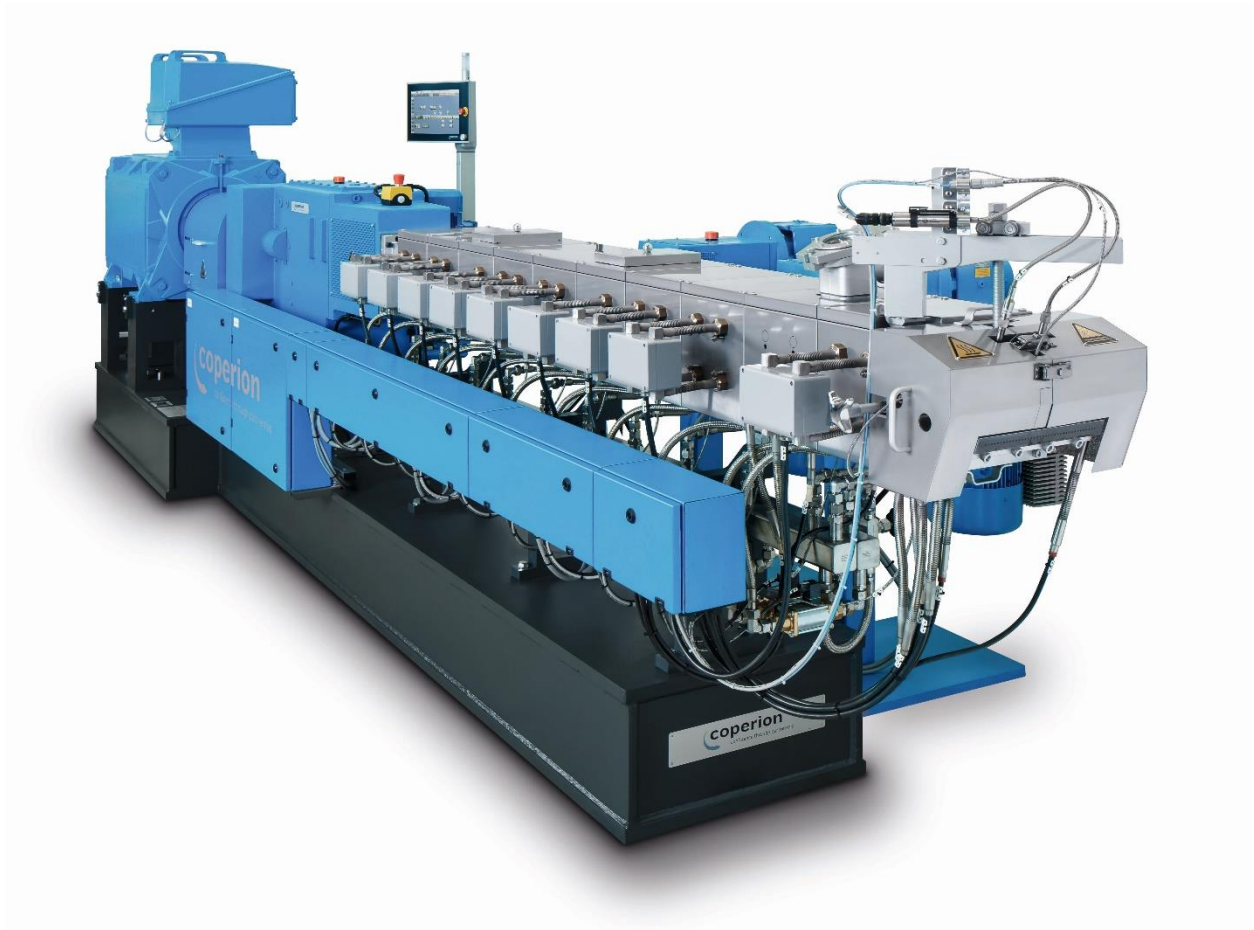


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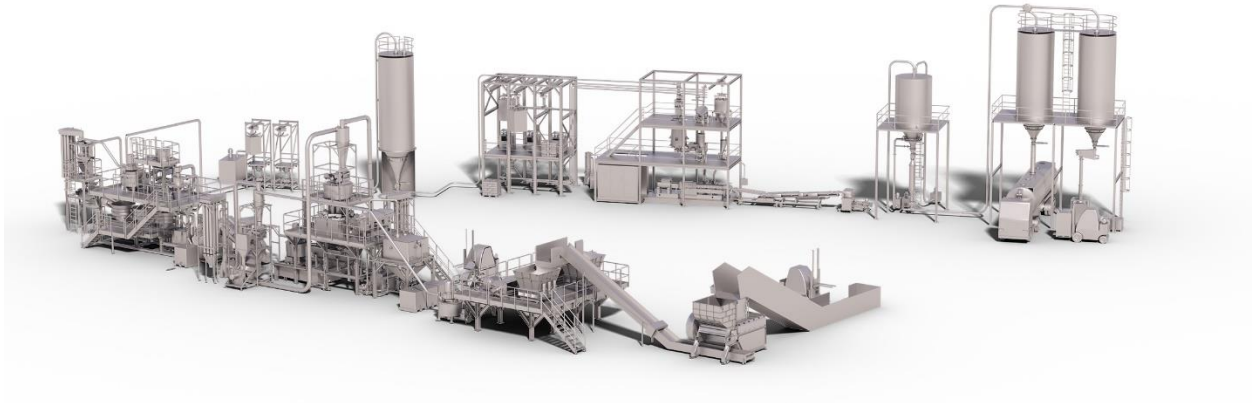
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Coperion extruders such as the ZSK 58 Mc¹⁸, which will be on display at Chinaplas 2023, are ideal solutions for the current challenges facing the plastics industry – such as recycling plastics or producing bioplastics.

Image: Coperion, Stuttgart, Germany

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With complete systems from a single source, Coperion and Herbold Meckesheim are setting new standards for plastics recycling.

Photo: Coperion, Stuttgart Germany



The Coperion K-Tron K2-ML-D5-T35 quick-change gravimetric feeder offers high-accuracy and reliable feeding with maximum flexibility.

Photo: Coperion K-Tron, Switzerland