

> compounding & extrusion
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# **Press release**

# Coperion and Coperion K-Tron at K 2016: Compounding, feeding and handling plastics with even greater precision and efficiency

*Stuttgart, August 2016* – At K 2016, Coperion will present a variety of new developments at stand B19 in hall 14. High-performance compounding extruders, pelletizers for polyolefin production, bulk material handling plants and systems for high-efficiency bulk material packaging are the company's latest focal areas. Innovations from Coperion K-Tron ensure even more precision for feeding and recording bulk material flows. And the company's current projects related to the theme of "Industry 4.0" will also be featured at the trade show.

An optimized version of the STS Mc<sup>11</sup> twin screw extruder for masterbatch production and a revised, especially compact version of the successful ZSK Mc<sup>18</sup> twin screw extruder series are the compounding system highlights. A product launch in the polyolefin production area, the UG 750W underwater pelletizer features an innovative corrosion and wear protection concept for a significantly extended die plate service life. When it comes to pellet conveying, Coperion will show the GAMMA-BEND NT, a newly developed deflector elbow that prevents angel hair build-up during pellet transport. The ITL 250 packaging machine will also be on display – a highly automated form-fill-seal system that now functions even more efficiently and reliably, thanks to newly engineered details. Coperion K-Tron will show the newly developed Electronic Pressure Compensation (EPC) that allows for even more precision and reliability in loss-in-weight feeders as well as the Smart Flow Meter, which is designed to measure bulk material flows gently and reliably at great accuracy.

## STS Mc<sup>11</sup> optimized for masterbatch

The core of this exhibit is the Coperion twin screw extruder STS Mc<sup>11</sup> series launched in 2015. With a maximum specific torque of 11.3 Nm/cm<sup>3</sup>, it is engineered for compounding jobs that



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require a higher energy input. Users benefit from the screw flight's increased fill factor and the related high throughput rate at a reduced melt temperature. Designed for masterbatch production, the variant being presented at K 2016 is equipped with a new feed hopper and a reworked die head, as well as further details that reduce the time required for cleaning and material changeovers.

## ZSK Mc<sup>18</sup> in a compact design

At K 2016, Coperion is also presenting an update of the ZSK Mc<sup>18</sup> twin screw extruder series with a maximum specific torque of 18 Nm/cm<sup>3</sup>, which has been successful for many years. The current advanced development of this series focuses on compact design and further handling improvements achieved by implementing a new control cabinet design, for example.

## Minimized wear for the underwater pelletizer

Also new at K 2016: the UG 750W underwater pelletizer from Coperion, whose throughput rates of 60-70 t/h cover the medium output range between the UG 750 (max. 55 t/h) and the much larger UG 1000 (max. 82 t/h). For its key component, the die plate with large dimensions corresponding to the UG 1000, Coperion is using newly developed, highly abrasion- and corrosion-resistant steel for the first time. Pilot applications yielded service life statistics that are double the current state of the art.

#### Material transport without angel hair

GAMMA-BEND NT is a newly developed deflector elbow for material transport that effectively prevents angel hair build-up during especially critical, 90° direction changes. Coperion is presenting it for the first time at K 2016. As a result of the special geometric design as a sectional elbow, the pellet grains only come into brief contact with the elbow wall and are transported directly to the next section without needing to glide at all.

#### FFS with more efficiency and reliability

The FFS Packaging Machine ITL 250 with automated features provides accurate weighing, ideal dosing and hygienic packaging for crystalline, granular, beaded or flaked goods. The new conical shape of the loading hopper assures less dead zones and better cleanability. Faster and more accurate dosing can be achieved by the new, servo-actuated gravity feeder. Furthermore, the machine will be equipped with a vacuum pump, which results in better vacuum flow for moisture sensitive products and improved bag shaping. Additional design improvements including a new body frame with motorized reel unwinder ensure more efficient and reliable operation.

#### Electronic Pressure Compensation for high-accuracy loss-in-weight feeders

With the unique new Electronic Pressure Compensation (EPC) system Coperion K-Tron presents a clever but simple electronic solution for accurate and steady pressure compensation for feeder hoppers or outlets at K 2016. The main advantages of the new system include



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improved accuracy and reliability as well as lower initial cost and easier installation compared to traditional mechanical pressure compensation systems. The modular design incorporates pressure sensors and electronics tailored to interact smoothly with Coperion K-Tron's KCM feeder control system. EPC can be installed on a majority of Coperion K-Tron's gravimetric feeders in almost any application and all industries.

#### Record, register or check bulk material flows reliably

Coperion K-Tron's Smart Flow Meter is a high-precision flow meter that can feed, meter or record bulk material flows reliably and can also be integrated into control systems. Gravity causes the material to flow into the upper measuring channel, which is designed as an inclined slide and is mounted on a load cell. Because only the force component that impacts the slide vertically is measured, all the abrasion influences are eliminated. The load cell in the vertical channel located below records the forces caused by the impact of the bulk material flow. The computer uses the two measured values to determine the actual flow rate per unit of time.

#### Industry 4.0 / Internet of Things

To Coperion and Coperion K-Tron Industry 4.0 or the Internet of Things means detailed solutions to issues such as remote maintenance (telemaintenance) and product tracking as well as other trendsetting approaches along the entire process chain. Their special focus is control systems and control technology, which they demonstrate at the trade show stand using concrete examples. A video that can be viewed at <a href="https://youtu.be/yhTep2j07Uw">https://youtu.be/yhTep2j07Uw</a> presents more information on how the companies approach the challenges that go hand in hand with this topic.

Coperion (www.coperion.com) is the international market and technology leader in compounding systems, feeding 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 40 sales and service companies worldwide.

Coperion K-Tron (www.coperionktron.com) is a Business Unit of Coperion (www.coperion.com) and is a global leader and single source supplier of material handling and feeding systems. Coperion K-Tron has defined the leading edge of technology for material handling and feeding applications in the process industries.

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The FFS Packaging Machine ITL 250 with automated features provides accurate weighing, ideal dosing and hygienic packaging for crystalline, granular, beaded or flaked goods.

Image: Coperion, Weingarten, Germany