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## Press Release

### Coperion at Chinaplas 2019

## 15<sup>th</sup> Birthday of STS Extruders: Coperion Adds New Laboratory Extruder to the STS Series

*Stuttgart, April 2019* – The STS twin screw extruder from Coperion is celebrating its 15th birthday this year. Thanks to the ongoing technological and design development, the STS extruder has proven itself today as a strong performing quality product for numerous compounding processes on the market. Just in time for this anniversary, Coperion has expanded the STS series by one more extruder size: The new STS 25 Mc<sup>11</sup> extruder with a 25 mm screw diameter is designed especially for research and development tasks as well as for production of small batch sizes of 2 kg and more, achieving throughputs of up to 80 kg/h. It will be shown for the first time at Chinaplas 2019 (21-24 May 2019, Guangzhou, China) at the Coperion booth 5.1M11 in Hall 5.1.

### STS Extruder Now in Laboratory Size

Completely new and available to view for the first time at this year's Chinaplas is Coperion's STS 25 Mc<sup>11</sup> extruder with a 25 mm screw diameter. It boasts all the advantages of the STS Mc<sup>11</sup> series, has a simple design, is operator-friendly and easy to clean. Its feed barrel is equipped with an exchangeable sleeve insert to facilitate cleaning. In addition the die head is in quick-release design for easy operation and accelerates product changes again. The base frame has a closed, simple to clean surface and is equipped with castors for easy movement of the extruder and fast installation. Water cooling, vacuum unit and air supply can be integrated into the base frame as an option.

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For maximum efficiency and energy savings Coperion has equipped the new STS 25 Mc<sup>11</sup> extruder with cartridge heaters for precise single zone tempering of each individual barrel. By having the same screw diameter ratio  $D_o/D_i$  (outer screw diameter to inner screw diameter) of 1.55 and the same maximum specific torque  $Md/a^3$  of 11.3 Nm/cm<sup>3</sup> as the whole STS Mc<sup>11</sup> extruder series, production parameters of the STS 25 Mc<sup>11</sup> can be reliably scaled up to larger STS sizes which makes it the ideal compounding system for recipe development and basic scientific research. The STS 25 Mc<sup>11</sup> which Coperion will exhibit at Chinaplas will be shown with the highly accurate Coperion K-Tron twin screw feeder K-ML-SFS-KT20.

### 15 Years of the STS Twin Screw Extruder

15 years after its introduction, the STS systems from Coperion serve as reliable high-performance extruders for a variety of applications, primarily in plastics compounding. When the first model of this extruder type was delivered in 2004, the STS twin screw extruder was equipped with a torque of 8.7 Nm/cm<sup>3</sup> and achieved screw speeds of up to 600 min<sup>-1</sup>. Throughput was limited to 1,200 kg/h with the then-largest machine size, the STS 75 with a 75 mm screw diameter. At that point, rapid development of the STS extruder series' technology, design and quality followed which was barely imaginable for the time. In 2008, the STS advanced with specific torque of 10 Nm/cm<sup>3</sup> and screw speeds up to 800 min<sup>-1</sup> launched successfully. Today's high-performance, high-quality STS Mc<sup>11</sup> was introduced to the market in 2015 and has set new standards. It has a maximum specific torque of 11.3 Nm/cm<sup>3</sup> and screw speeds of up to 900 min<sup>-1</sup>. In its largest extruder size, the STS 96 Mc<sup>11</sup>, today throughputs of up to 4,200 kg/h are achieved. Screw elements and barrels are available in various materials from standard versions to highly wear and corrosion resistant solutions, individually tailored to applications' requirements and high throughput rates. The screw diameter ratio  $D_o/D_i$  of the STS extruder is 1.55, which is the same ratio that Coperion uses for numerous ZSK extruders and that has proven itself for an optimal combination for most plastics processing applications. The STS Mc<sup>11</sup> extruder is equipped exclusively with high-quality Coperion-brand gearboxes manufactured in Europe. STS Mc<sup>11</sup> is produced at Coperion in Nanjing, China, in accordance with CE guidelines and the highest Coperion standards of quality, and is distinguished by its very attractive price-to-performance ratio.

Originally the STS extruder was mainly applied for the modification of engineering plastics and masterbatch. After 15 years of continuous process technology development, today the STS extruder series proves itself successful in compounding of engineering plastics, masterbatch, powder coating, cable masses, recycled plastics, regrind and much more. From 2004 to 2018

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700 STS extruders have been installed all over the world, achieving Coperion's historical record with over 100 STS extruders sold in 2018.

### **Highest Quality Standards in STS Production**

The incomparable development of the STS extruder series to become a best quality high-performance extruder was made possible in part by implementing strict manufacturing controls at Coperion's Nanjing location over the last few years. Coperion Nanjing uses German machining centers with state-of-the-art technology and has long implemented proven Coperion standards to ensure high-quality production. The manufacturing process is closely supervised using highly accurate, complex German machines and equipment components for production and quality measurement. The Coperion factory in Nanjing, meanwhile, is now delivering the same high standards of quality for which Coperion Stuttgart is known.

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](http://www.coperion.com) or email [info@coperion.com](mailto:info@coperion.com).



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Highly constructed and simple to clean – these are the visible characteristics of the new STS 25 Mc<sup>11</sup> laboratory extruder; among its inner values are torque from 11.3 Nm/cm<sup>3</sup> and screw speeds of up to 900 min<sup>-1</sup>.

*Image: Coperion, Stuttgart*