

FOR IMMEDIATE RELEASE

The logo for INTERPHEX, with the word "INTERPHEX" in a bold, red, sans-serif font and a grey "X" symbol to the right.

Booth no. 2261

Contact

Shari Lake
Director of Marketing
Coperion K-Tron Salina, Inc.
606 North Front Street
Salina, KS 67401 USA

Telephone +1 (785) 825-3884
Shari.lake@coperion.com
www.coperion.com

Press Release

New Compact and Modular Pharmaceutical Feeder Design

Coperion K-Tron introduces highly accurate feeding solution at Interphex 2018

Sewell, USA (February 2018) – To meet the growing demands of continuous processing in pharmaceutical applications and also address similar requirements for quick changeover and cleaning in batch applications, Coperion K-Tron introduces the next generation of its highly accurate pharmaceutical loss-in-weight screw feeders at this year's Interphex, April 17-19, 2018, Jacob Javits Convention Center in New York City, Booth 2261.

In their booth, Coperion and Coperion K-Tron will focus on both continuous and batch processes and their newest innovative solutions for optimal feeding and refill accuracy, while demonstrating how they provide single source solutions for extrusion, feeding and conveying applications in the pharmaceutical and nutraceutical industries. They continue to work closely with pharmaceutical and nutraceutical companies of all sizes, resulting in smart technical solutions such as the new pharmaceutical feeder line, always with an emphasis on product quality and process safety. Exhibits on display include the new K3-PH loss-in-weight feeders (QT20 and QT35), as well as micro-ingredient feeder (MT12) with interchangeable twin and single screw feeding modules, P10 vacuum sequencing sanitary powder receiver and the hygienic low capacity ZZB rotary valve, a perfect design for pharmaceutical applications.

New Coperion K-Tron K3-PH line of pharmaceutical loss-in-weight feeders

The new K3-PH feeder design features a modular concept, complete with a drastically reduced overall footprint, thanks to a smaller D4 platform scale incorporating the patented and highly

FOR IMMEDIATE RELEASE

accurate Smart Force Transducer (SFT) weighing technology. The new D4 platform scale features the same state-of-the-art sanitary design of the established Coperion K-Tron D5 scale. Smooth, crevice free surfaces prevent deposit of dust and product residue and enable easy cleaning. At the heart of the new D4 scale, Coperion K-Tron's patented SFT single wire weighing technology provides a highly accurate weight signal with a resolution of 1:4,000,000 in 80 ms. The advanced electronics include linearization, temperature compensation, and a digital low-pass filter to reduce the effect of plant vibration. The 100% digital design eliminates the need for calibration.

The feeder's modular quick change design allows the easy exchange of feeder types and sizes as well as hoppers or agitators using the same scale & drive for fast adaptation to new processes and formulations while also ensuring easy cleaning and maintenance. The new design is ideal for multi feeder clustering in a variety of continuous processes, including direct compression (CDC), continuous extrusion, wet and dry granulation, and continuous coating, as well as traditional batch processes. The new modular pharmaceutical feeder design includes several innovative modifications, all engineered as a result of in-depth market studies with end users in the pharmaceutical industry. The quick change feeder bowl, agitator and screw combinations which can be quickly decoupled from the feeder drive provide for easy and fast changeover and cleaning of the feeders. By opening two clamps the feeder bowl can be released and replaced by a clean one for running a new product. The three available Coperion K-Tron feeder types QT20, QT35 and QS60, both twin and single screw, can be used with the same scale and drive combination. The redesign of the scale from a heretofore round design to a trapezoid design facilitates an optimized multi feeder arrangement with a much smaller footprint. This is important and useful especially in areas with limited space, where multiple ingredients must be fed into one process inlet. In addition, the feeder bowls and hoppers feature a new improved seal design for ideal product containment. The new modular concept also features a newly developed drive using a servo motor which helps reduce the overall footprint and offers a much larger turndown range, including low feed rates. Multiple gearbox changes as in the past are not required any more. The three available feeder types QT20, QT35 and QS60 are interchangeable, depending on the product to be fed, the required feed rates and the necessary scale resolution as continuous processes often require multiple ingredients to be fed into the process at different rates. For an optimal Wash-in-Place (WIP) result, every unit has an

FOR IMMEDIATE RELEASE

integral 2 degree pitch facilitating maximum drainage during the cleaning process. The new modular K3-PH line concept is designed to provide for a cluster arrangement of 6 or more feeders to meet these complex requirements. The complete line of equipment is engineered to meet the rigid requirements of the pharmaceutical industry, including strict adherence to cGMP guidelines and standards as well as the use of FDA approved materials of construction.

The new Coperion K-Tron K3-PH line of pharmaceutical design loss-in-weight feeders includes proven instrumentation, controls and optimized design options for continuous feeding of difficult flowing pharmaceutical excipients and API's. Depending on the application, the new pharmaceutical feeder line can be outfitted with a variety of ancillary options including the innovative ActiFlow™ bulk solids activator, a material flow aid for feeding difficult flowing materials, as well as Electronic Pressure Compensation (EPC). EPC is a unique instrumentation package which can optimize feeder performance in continuous operations such as blending, extrusion, granulation and coating. The pharmaceutical feeders are available in volumetric and gravimetric, single and twin screw models.

Coperion K-Tron MT12 Micro-Ingredient Feeder: Provides Maximum Accuracy at Minimal Feed Rates

The Coperion K-Tron family of Micro-Ingredient Feeders is ideal for accurately feeding free flowing to difficult materials at rates as low as 32 grams/hour and as high as 2000 grams/hour. The low rate, micro-ingredient feeder line includes interchangeable MT12 mm and MT16 mm twin screw feeding modules or MS12 mm and MS16 mm single screw feeder modules. The compact feeder is designed for ease of disassembly, allowing fast and easy cleaning, with options available for automatic refill. Typical applications include feeding jet mills, tablet presses, continuous extrusion processes and any application where expensive micro ingredients require accurate feeding. The model on display will be the MT12.

Coperion K-Tron P-Series Receivers: Solutions for Difficult Material Applications

Coperion K-Tron P-Series receivers provide a sanitary solution for difficult material conveying applications. The sanitary design features include steep cone angles to ensure excellent discharge and band clamps for quick disassembly. The conveying principle includes vacuum, dilute phase, and dense phase. Conveying rates vary depending on model, product

FOR IMMEDIATE RELEASE

characteristics and conveying distances. Typical materials include tablets, capsules, flakes, free-flowing to poorly flowing powders, and materials requiring gentle conveying. Model on display includes a P10 in mirror finish.

Coperion Hygienic / ZZB Rotary Valve for Pharmaceutical Applications

The Coperion ZZB hygienic rotary valve is specially designed for sanitary pharmaceutical applications requiring high hygienic standards of metering and discharging of pharmaceutical powders where frequent cleaning and ease of operation is imperative. This rotary valve offers a highly polished surface Ra 0.8 µm in and outside to avoid product deposits, with all product surfaces FDA approved. The valve's standard extraction device allows the rotor to be easily removed from the housing and easy to open tri-clamp flange connections at both inlet and outlet simplify installation and maintenance. There is a large inlet for maximum capacities. The outboard bearings are separated from product through a drop out opening, with optimal purged shaft seals. The standard ZZB offers pressure differential up to 3 psi [0.2 bar(g)] with 15 psi [1 bar(g)] as an option. The ZZB is available in sizes DN 80 and 100 (inlet and outlet) and is suitable for use in Ex-Zones, inside 0.2, outside zone 1.21.

For more information www.coperion.com/Interphex2018

Word count: 1,207

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. For more information visit www.coperion.com or email info@coperion.com.



Dear colleagues,
You will find this press release English and German and the color photos in printable quality available for download online at <https://www.coperion.com/en/news-media/newsroom/>

FOR IMMEDIATE RELEASE

Editor contact and copies:

Dr. Jörg Wolters, KONSENS Public Relations GmbH & Co. KG,
Hans-Kudlich-Strasse 25, D-64823 Gross-Umstadt, Germany
Tel.: +49 (0)60 78/93 63-0, Fax: +49 (0)60 78/93 63-20
E-mail: mail@konsens.de, Website: www.konsens.de



The new K3-PH line of feeders in modular design has been specifically designed to meet the growing demands of continuous processing in the pharmaceutical industry.

Image: Coperion K-Tron, Niederlenz, Switzerland

FOR IMMEDIATE RELEASE



*Coperion K-Tron's new QT20 pharmaceutical feeder with a redesigned trapezoid scale shape and significantly smaller footprint is optimized for multi-feeder clusters around a process inlet.
Image: Coperion K-Tron, Niederlenz, Switzerland*



Coperion K-Tron MT12 Micro-Ingredient Feeder accurately feeds fine materials at rates as low as 20 g/h.

Image: Coperion K-Tron, Sewell, NJ, USA

FOR IMMEDIATE RELEASE



Coperion K-Tron P10 pneumatic conveying vacuum receiver is a custom solution for sanitary pharmaceutical ingredient handling.

Image: Coperion K-Tron, Niederlenz, Switzerland



The hygienic Coperion ZZB rotary valve is a solid stainless steel rotary valve for high hygienic standards. It quickly opens with a clamp connection for easy installation and maintenance.

Image: Coperion GmbH, Weingarten, Germany