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Press Release

Coperion K-Tron announces new Pharmaceutical Feeder Design to be displayed at Powtech 2017

Highly accurate feeding solution for growing demands of continuous processing

Sewell, NJ, USA (August 2017) – At this year's Powtech 2017 (Sep 26-28, 2017, Nuremberg, Germany) Coperion K-Tron introduces the next generation of its highly accurate pharmaceutical loss-in-weight feeders. The new K3-PH line of feeders has been specifically designed to meet the growing demands of continuous processing in the pharmaceutical industry. The new feeder design features a modular concept complete with a drastically reduced overall footprint thanks to a new, smaller D4 platform scale incorporating the patented and highly accurate Smart Force Transducer (SFT) weighing technology. The modular quick change design allows the easy exchange of feeder types and sizes as well as hoppers or agitators using the same scale and 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.

Features of the new modular pharmaceutical feeder design - for easy handling and better product quality

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

feeder. 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 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 integral two 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 six 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.

High-accuracy weighing with patented SFT technology – the heart of the new pharmaceutical feeder line

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.

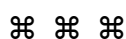
Wide range of feeding equipment for optimized processes

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.

In addition to the new K3-PH line, Coperion K-Tron offers a wide variety of bulk material and liquid feeders for pharmaceutical processing applications. Coperion and Coperion K-Tron can provide single source solutions for extrusion, feeding and conveying applications in the pharmaceutical and nutraceutical industries. Coperion K-Tron and Coperion 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 and process quality.

For additional information on Coperion & Coperion K-Tron pharmaceutical products and services visit: www.coperion.com/pharma

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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



*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*