



Produktneuheiten

Coperion K-Tron announces new Pharmaceutical Feeder design to be displayed at ISPE 2017

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Niederlenz, Schweiz -

Coperion and [Coperion K-Tron](#) 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 and process quality.



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)

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

The new K3-PH-ML-D4-QT35 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 & 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.



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)

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 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.

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 APIs. 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.

Maximum Accuracy at Minimal Feed Rates

The **Coperion K-Tron** family of Micro-Ingredient Feeders is available in both pharmaceutical and standard models, for accurately feeding free flowing to difficult materials at rates as low as 20 grams/hour and as high as 2000 grams/hour. The low rate, micro-ingredient feeder line includes interchangeable MT 12 mm and MT 16 mm twin screw

feeding modules or MS 12 mm and MS 16 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.

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.