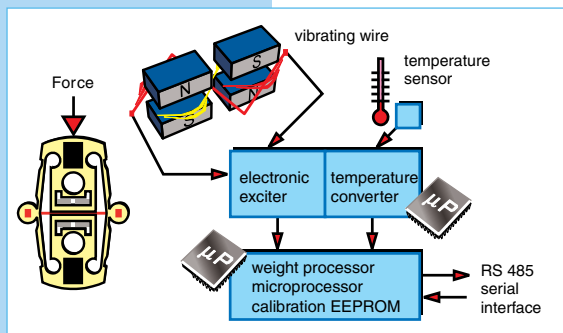


9 Smart Design Features

that Make Coperion K-Tron Feeders More Accurate than Ever

For more than 100 years Coperion K-Tron has set the pace for quality and innovation in bulk solids feeding. With decades of innovation in feeding and weighing technology, Coperion K-Tron continues to advance the state of the art. Below are some brief examples of how Coperion K-Tron's tradition of innovation translates into performance-enhancing features that directly benefit bulk solids processors like you.

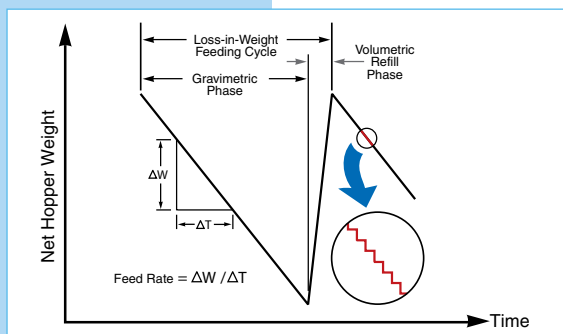


1 High-Resolution Digital Weighing

High feeding accuracy begins with precise, high-resolution weighing. Coperion K-Tron pioneered digital vibrating wire weighing technology with the introduction of its two-wire DMT load cell. Today, Coperion K-Tron's single-wire Smart Force Transducer (SFT) represents more than 40 years of evolution and intense development to provide economical, drift-free weighing resolution of 1:8,000,000 in 20 ms.

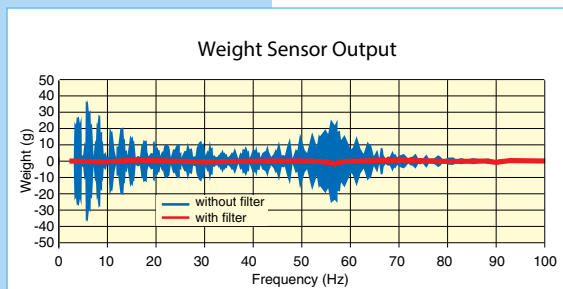
2 Fast Weighing and Control

Many of today's demanding processes require high feeding accuracy over very brief timescales, often just a few seconds. Coperion K-Tron's advanced weighing and loss-in-weight dynamics enable up to 450 weight samples and 12 associated control adjustments— with updates to motor speed— to be performed every second, optimizing instantaneous feeding and performance in critical applications.



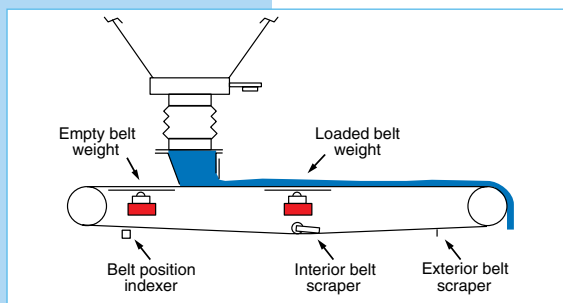
3 Vibration Immune Weighing

Achieving high gravimetric feeding performance on the process line requires discriminating between weight data and the contaminating effects of inertial forces induced from ambient vibration and shock. Coperion K-Tron's exclusive dynamic digital filtering algorithm continuously identifies and extracts spurious inertial components from the weight measurement, even in severe process environments.



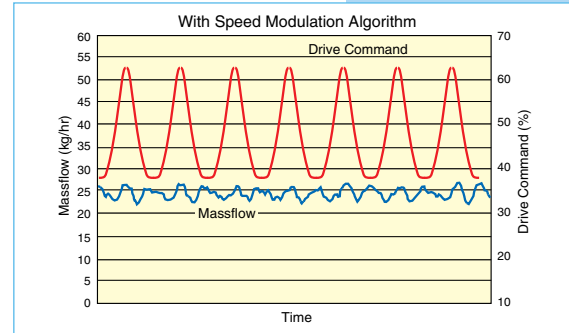
4 No Weigh Belt Re-Taring

Coperion K-Tron's exclusive Continuous Auto-Tare feature eliminates out-of-tare feed rate errors and tedious, periodic weigh belt feeder recalibration. A second SFT weight sensor, positioned upstream of the material bed, continuously senses empty belt weight. The controller then subtracts indexed belt weight from the load measurement, assuring moment-to-moment accuracy even with sticky materials.



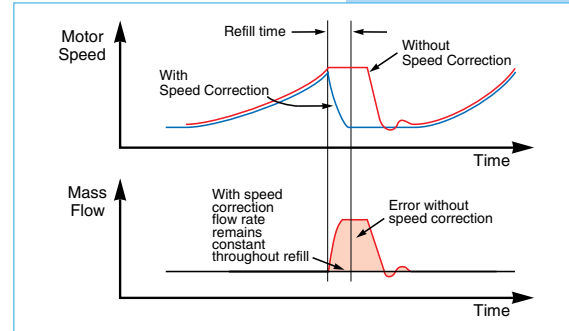
5 Smoother Discharge

Single screw loss-in-weight feeders, operating at low rates, often produce an unsteady discharge within one revolution of the screw, resulting in mass flow pulsation. Coperion K-Tron's exclusive Screw Speed Modulation algorithm records the pulsation and adjusts screw speed to compensate for the effect, minimizing mass flow variability.



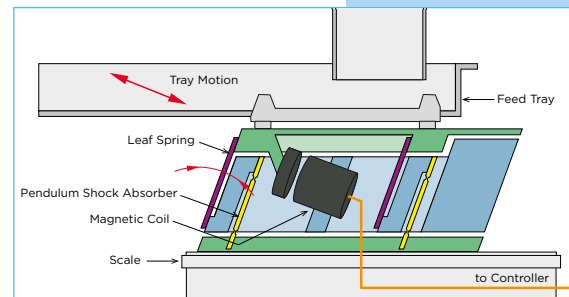
6 Optimized Feeder Refill

During loss-in-weight hopper refill, sensed weight is not useful to control feed rate. While others simply freeze screw speed until refill is complete, Coperion K-Tron's exclusive Smart Refill Technology memorizes recent gravimetric performance at various hopper weights and varies screw speed to compensate for changes in material density during refill. This maintains accurate performance and enables a smoother transition to full gravimetric control.



7 Advanced Vibratory Feeding

Where uniform discharge is critical, especially at very low rates, Coperion K-Tron's new K3 loss-in-weight vibratory feeder line provides the best solution. The unique flexible pendulum technology provides shock absorption only parallel to the desired direction of motion, ensuring an even material flow and increasing accuracy significantly. The advanced control system and feeder electronics include internal sensors which measure acceleration, displacement, load, current and temperature at rates of up to 25,000 times per second.



8 The Most Material Handling Solutions

Over the course of thirty-five years of feeding more than 7,000 process materials worldwide, Coperion K-Tron has developed the widest array of feeding and material handling and conditioning solutions available. Today, with practical innovations such as the PowerSphere feed bowl for superior screw fill, Coperion K-Tron continues to advance the material handling state-of-the-art.



9 Single Source Systems Solutions

Individual feeder accuracy is only part of the performance equation. The entire material handling system must work together to achieve a quality end product. Coperion K-Tron offers seamless feeder refill by integrating Coperion K-Tron vacuum receivers into SmartConnex feeder controls. SmartConnex offers easy communication to most plant PLCs via SmartLink modules offered that plug into a feeder's Coperion K-Tron Control Module (KCM). In addition, the Coperion K-Tron Systems Engineering Group can supply the complete material handling system.

