Martin Engineering Debuts Automated Conveyor Belt Cleaner

Martin Engineering introduced an autonomous tensioning system that continuously monitors and delivers proper cleaner tension. By utilizing the company's intuitive new smart technology platform to maintain proper blade-to-belt pressure, the N2 Twist Tensioner provides the best possible cleaning performance throughout the life of the blade. The system also alerts operators on the Martin Smart Device Manager App when the blade needs changing or if there is an abnormal condition. The result is efficient cleaning, increased safety, reduced labor and a lower cost of operation.

"We designed the unit for heavy-duty applications and tested it outdoors in punishing environments and applications," said **Andrew Timmerman**, product development engineer at Martin Engineering. "The N2 Twist Tensioner has proven itself to be a rugged and highly effective way to maximize both cleaning efficiency and blade life."

Located on the head pulley, primary belt cleaners commonly have a twist, ratchet or spring tensioner to ensure the cleaner blade stays in consistent contact with the conveyor belt for proper cleaning and material discharge. Prior to the new design, belt tensioners had to be monitored and adjusted manually, in some applications on a daily basis, so they would maintain optimum pressure and carryback removal. Estimating when blades needed changing was often a guessing game that, if left too long, could lead to belt damage.

Inadequate tensioning causes carryback to cling to the belt and spill along its path, piling up under the conveyor and emitting excessive dust. This requires extra labor for cleanup and can affect air quality. Over-tensioning leads to friction damage to the carrying side of the belt, premature blade wear and potential splice damage. Both scenarios create unsafe work conditions and raise the cost of operation significantly.

The N2 Twist Tensioner automatically maintains precise cleaning pressure throughout the entire life of the blade, without maintenance. The tensioner applies the proper amount of torque to deliver optimum cleaning pressure at the blade tip, supporting the Constant Angle Radial Pressure (CARP) cleaner design that withstands the force of heavy bulk cargo but retains a consistently tight seal across the belt profile.

Martin Engineering's smart technology platform monitors blade wear and informs operators when the blade needs changing from control systems that are housed in a durable weather-resistant NEMA 4 control box. Experts recommend changing blades before there is a chance of detachment or a "pull through" (inversion under the head pulley). In the event of a premature pull through, operators are alerted, and the tensioner's internal self-relieving coupling rolls over. A blade detachment also triggers an alert allowing operators to quickly shut down the system and avoid expensive belt damage.

The electrical system runs both the tensioning system and the sensors. The unit is powered by a rechargeable 12-volt battery life and can also be specified to run on 110 to 220 VAC. The system includes all necessary components for installation based on the power supply option.

Precise tensioning and improved belt cleaning reduce the volume of dust and spillage from carryback, improving workplace safety and decreasing labor.
Martin Engineering, www.martin-eng.com

Terex Launches Dust-Suppression System

Terex introduced Aquamist by Terex – a dust-suppression system that is now available across its materials processing brands: EvoQuip, Fuchs, Powerscreen, Terex Ecotec, Terex Finlay, Terex MPS and Terex Washing Systems.

The "Aquamist by Terex" dust-suppression system offers an improvement over conventional jets or water-sprays to manage the build-up of dust and better protect workers on jobsites by using a high-capacity misting fan that produces finely divided water droplets in the size range 10 to 150 micron diameter.

At this size, they easily combine themselves with dust particles of similar dimensions and precipitate them out of the air and, because water-mists "float" more than a conventional spray, they cover and envelop the dust cloud more effectively.

Paul Kearney, vice president of parts and solutions for Terex Materials Processing said, "It is globally accepted now that airborne dust that is formed on jobsites can significantly contribute to respiratory illnesses. As increased legislation comes into place globally to mitigate this, more effective control of dust is needed. Our Aquamist system will better support worksite operations and strengthen our commitment to making the workplace a safe and healthy environment."
Terex, www.Terex.com