



Product News

New Secondary Conveyor Belt Cleaner designed for Safety and Easy Maintenance

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Neponset (IL), United States -

The global leader of belt conveyor accessories has announced the next generation of secondary conveyor belt cleaners engineered to reduce dusty carryback and lower maintenance time. Designed to withstand the stress of heavier loads carried on wider, thicker belts at higher speeds, the Martin® SQC2S™ Orion Secondary Cleaner features individually cushioned tungsten carbide blade cartridges for effective cleaning without risk to the belt or splices.



A latch pin releases the cartridge from the mainframe allowing cartridge removal and replacement. (Pictures: ©Martin Engineering)

A two-tiered tensioning system means minimal adjustments and monitoring throughout the life of the blade. The heavy-duty blades are mounted on a slide-in/slide-out assembly for faster and safer one-worker external servicing. The result is improved belt cleaning with less dust and maintenance for greater

workplace safety at a lower cost of operation.

“We field tested the Orion over several months side-by-side with competitor designs in punishing mining environments and found that the new design significantly outperformed the competition,” said Dave Mueller, Conveyor Products Manager for Martin Engineering. “At the end of the testing period, customer participants started the process of replacing all their heavy-duty secondary cleaners with the Orion. We now view this design as the future of our secondary cleaner line moving forward.”

Secondary cleaners play an essential role in the belt cleaning process by significantly reducing the volume of dust and fines dropped as carryback on the belt return. Primary cleaners release most of the abrasive material remaining on the belt after discharge. Located below the head pulley just behind the primary, secondary cleaners scrape off the fines and dust that hide in cracks and divots in the belt. Carryback is attributed to many environmental and operational issues such as air quality violations, fouling of rolling components and machinery, and increased labor for cleanup and maintenance.

For all Applications



Deflector shields usher carryback into the discharge chute to prevent fouling the mainframe for easier maintenance.

The Martin® SQC2S™ Orion Secondary Cleaner is appropriate for all bulk handling material applications. The unit is made up of individual 6 in. (152.5 mm) blades mounted on a square steel tube assembly. Not designed for reversing belts, it is suitable for 18 – 96 in. (457 - 2438.5 mm) belt widths, belt speeds up to 1200 fpm (6 mps), and temperatures up to 250° F (121° C).

“What sets this unit apart from others on the market is the innovative, dual tensioning system with independent heavy-duty tungsten blades which are game-changing design features,” Mueller explained. “The first level of tensioning is supplied to the entire assembly using the heavy-duty SQC2S™ Tensioner which applies light upward torque evenly across the belt profile for less friction and no

wear on splices.”



The mounting assembly firmly secures the secondary cleaner to the stringer.

The second level of tensioning is on the individual blade assembly. Each Orion blade assembly is attached to a steel square tube assembly which is secured a mounting plate. The square tube houses a rubber tensioner with a torsion arm bolted to each side. A specialized tungsten blade is attached to the arm. The whole system is mounted at a 90-degree angle then tensioned so each blade is vertical and perpendicular to the belt. As the belt runs, each blade assembly adjusts independently to precisely match the belt's profile, permitting them to compensate for camber, flaws/blemishes, and stubborn material stuck to the belt's face. To accommodate belt cupping and other uneven surfaces, the blade assemblies can be individually adjusted to match the belt profile.

Blades for Wet and Dry Environments

The blades are specially designed for heavy-duty abrasive applications in both dry and wet environments. Tested on hard rock and slurry belts, the Orion blades offered superior cleaning results with a longer equipment life. This is due to the rugged tungsten carbide core surrounded by mild steel. Blades are also available in stainless-steel for specific corrosive materials.

The blade design features an attached deflector shield made from polypropene or rugged nylon for high temperature applications. Mounted directly to the blade in an outward scoop design, the shield ushers loosened material away from the mainframe and toward the discharge chute. This mitigates buildup on the assembly, extending the blade's effectiveness and reducing the amount of maintenance.



Cartridges with individual tensioning improves cleaning efficiency and effectiveness.

Safety and ease of maintenance is a key feature and a core priority for all Martin Engineering designs. The slide-in/slide-out design allows a single worker to perform maintenance with easy access outside of the conveyor structure, eliminating the need to crawl underneath or awkwardly reach inside. This greatly

improves workplace safety and reduces the amount of time and labor required for maintenance, significantly lowering the cost of operation.

“Every bulk handling operation is unique and requires equipment that is versatile and adaptable, and I think we’ve achieved that with the Orion,” said Mueller.

“Martin Engineering products are developed to improve efficiency and safety, without compromising belt health. This design gives customers more options and superior results, regardless of the material or the process.”