



PROBLEM SOLVED™ PAPER

SOLUTION: CleanScrape® Cleaner

INDUSTRY: Cement

LOCATION: Cement Plant in Ukraine

PROBLEM

A cement plant located in Western Ukraine was experiencing extensive carryback on conveyors carrying slag. Due to the abrasive material's particle shape and small size, it easily passed under the cleaner blade and remained on the return side of the belt, allowing it to drop along the belt path. Fugitive material built up on floors and encapsulated rolling components, causing excessive downtime for maintenance and cleaning. After testing numerous primary and secondary cleaners from several suppliers, operators found none of the cleaners adequately cleaned the belt. Increased operational costs for labor and replacement parts inspired managers to seek alternatives.



Excessive carryback adhered to the return side of the belt and encapsulated idlers.

SOLUTION

After inspecting the problem, technicians from Martin Europe recommended the installation of a CleanScrape® Cleaner. Designed to be installed diagonally across the discharge pulley, the blade forms a three dimensional curve with an extremely low contact pressure between belt and cleaner. The blade is comprised of a matrix of tungsten carbide scrapers and is tensioned against the belt by stringers, typically resulting in the removal of as much as 95% of difficult material. Designed for belt widths up to 96 in. (up to 2400 mm), speeds up to 1500 fpm (7.5 m/s), and pulley diameters of more than 48 in. (1200 mm), the blade delivers double the life of most standard blades.



With its small footprint, the CleanScrape® Cleaner is set diagonally on the head pulley.

RESULTS

After the installation of the CleanScrape® Cleaner, the results were immediately apparent. Easily adjustable from outside the chute box, operators performed some re-tensioning to optimize cleaning performance. To fully clean the fines stuck in the cracks and divots of the belt, managers also installed a Martin® SQC2S™ Cleaner for more complete cleaning. "Once we made the proper adjustments and finished the full installation, we are very happy with the result," said an operator close to the project. The company is now working on a budget to equip several more belts with CleanScrape® Cleaner blades throughout the coming year.



The blade spans the entire length of the belt, cleaning from edge to edge for more efficient operation.