



PROBLEM SOLVED™ PAPER

SOLUTION: Martin® QC1 HD with Metal Tipped Blade

INDUSTRY: Asphalt Production

LOCATION: Vitali Olbia Asphalt Plant; Olbia, Sardinia, Italy



The Vitali Olbia facility handles ~2.19 million tons of sand & gravel per year to produce concrete and asphalt.



The QC1 HD Cleaner with Metal Tipped Blade is designed to handle highly abrasive materials.



Daily cleanup of spillage has now been reduced to removal as needed just once every 6-7 weeks.

PROBLEM

The Vitali Olbia plant transports highly abrasive sand and gravel via conveyor to produce concrete and asphalt. Having just launched the Mr. Blade program in Italy, a Martin Engineering technician visited the site and noticed that the existing belt cleaners were allowing a substantial amount of carryback to remain on the 800 mm wide belts, resulting in significant spillage. As a result, two employees were assigned to clean up the fugitive material every day, taking time away from more productive activities. In addition to the wasted material and labor time, this also placed the workers in close proximity to the moving conveyors, introducing a possible safety risk.

SOLUTION

After a thorough review of the conveying system, the Mr. Blade technician recommended two Martin QC1 HD Belt Cleaners with Metal Tipped Blades to handle the highly abrasive materials. The QC1 is a primary blade and spring tensioner system designed to keep a tight seal across the blade profile, with minimal wear on the belt or splice. For the first conveyor, a standard orange blade was used for its ability to handle abrasive conditions. For the second belt, which feeds the oven, a green high-temperature blade was installed, able to withstand continuous temperatures of -40 to 150°C (-40 to 300°F) and intermittent exposure to temperatures as high as 177°C (350°F).

RESULT

Upon completing the installations, the improvement was readily apparent, and the plant manager noted the absence of fugitive material that accumulated so quickly before. Instead of daily cleanup, maintenance workers now check for spillage and remove as needed just once every 6-7 weeks. "We subscribed to the Mr. Blade program at a number of our production sites in 2019, and we quickly saw the benefits in reduced spillage and increased system uptime," said Luigi Pinna. "We anticipate that the program will continue to help us improve productivity, reduce carryback and minimize spillage, and we hope to extend the program to more of our plants in the coming months."