



PROBLEM SOLVED™ PAPER

SOLUTION: Martin® QC1+™ Cleaner HD

INDUSTRY: Chrome

LOCATION: Africa

TITLE: Martin® QC1+™ Cleaner HD Eliminated Carryback at Chrome plant

PROBLEM

A major ferrochrome production facility with an annual production capacity of approximately 285,000 tonnes relies on its crusher plant to process raw and recycled materials to the correct size for efficient production and optimal chrome recovery. The 750 mm conveyor system depended on a secondary belt cleaner that was unable to effectively control carryback. As a result, material accumulated on the return side of the belt, causing spillage along the conveyor, increasing housekeeping requirements, creating potential slip, trip, and fall hazards for personnel, and negatively impacting conveyor efficiency and reliability.



Spillage due to ineffective belt cleaning causing safety hazards



Installation of Martin® QC1+™ Cleaner HD

SOLUTION

Following a thorough Walk the Belt™ inspection, our expert Sales Engineer recommended the installation of the Martin® QC1+™ Cleaner HD. This CEMA-recommended (Conveyor Equipment Manufacturers Association) cleaning arrangement removes the bulk of carryback at the head pulley, allowing the secondary cleaner to effectively remove the remaining residue and improve overall belt-cleaning performance. Featuring patented Constant Angle Radial Pressure (CARP) technology, Martin® QC1+™ Cleaner HD maintains consistent blade-to-belt contact and cleaning pressure, delivering superior cleaning performance, reduced carryback, and extended blade life.



Martin® QC1+™ Cleaner HD with Constant Angle Radial Pressure (CARP) technology

RESULT

Within two weeks of installation, carryback was effectively eliminated, significantly improving belt cleanliness and reducing fugitive material along the conveyor. Lower spillage levels reduced housekeeping requirements and helped create a safer working environment by minimizing slip, trip, and fall hazards. The improved cleaning performance increased conveyor efficiency, reduced material loss, and contributed to more reliable plant operation. The customer expressed satisfaction with both the solution and installation process, noting measurable improvements in conveyor performance, operational efficiency, and workplace safety.