



# PROBLEM SOLVED™ PAPER

**SOLUTION:** Martin® SQC2™ Orion 2000 Secondary Cleaner

**INDUSTRY:** Cement

**LOCATION:** Medcem Cement Plant, Mersin, Turkey

**TITLE:** Return on belt cleaning investment in less than 6 months



Medcem operates one of the world's largest and most important cement plants, exporting around 4 million tpa.



The previous arrangement caused serious carryback accumulation along the conveyor's return path.



The blade shield ensures smooth discharge of the cleaned material without accumulation.

## PROBLEM

Operating in Mersin since 2015, Medcem increased its annual clinker production capacity from 3.5 to 6.6 million tonnes in 2024, achieving a 90% capacity increase and becoming one of the largest cement plants in the world. For nearly a year, a primary belt cleaner from another brand fitted to the raw material auxiliary conveyor belt had failed to provide sufficient cleaning at the belt discharge area and caused serious carryback accumulation along the return path. This led to production stoppages, increased maintenance and cleaning costs, occupational accident risks, product loss, and labor inefficiency. In particular, since this conveyor line is located 20 meters above ground level, the risk of safety incidents during cleanup operations was high.

## SOLUTION

After detailed on-site inspections, Martin's experts recommended the Orion 2000 Secondary Cleaner. Thanks to its "paint-scraper" cleaning angle, the Orion 2000 provides maximum removal of material adhering to the belt and eliminates spillage. The tungsten carbide blade tips offer long service life and effective cleaning, while the blade shield ensures smooth discharge of the cleaned material without accumulation. The flexible blade holder accommodates belt splice transitions, preventing damage and contributing to long system life. The "quick-change" cartridge system simplifies maintenance while the optional water spray system increases cleaning efficiency and dust suppression, enhancing overall performance and productivity.

## RESULT

Post-application evaluations showed a 60–75% reduction in dust and spillage, making the conveyor belt cleaner, safer and more efficient. Eliminating manual cleaning saved around 1.5 hours of labor loss per shift, resulting in average monthly labor savings. Extended belt life led to an annual reduction in maintenance and spare parts expenses. Reduced material loss increased production efficiency by 5%. Overall, annual financial benefits of approx ₺900,000 (>\$20,000) were achieved, with a return on investment in less than 6 months. The Medcem team were highly satisfied with the improvements and subsequently started planning to implement the same solution on other conveyors.