PROBLEM SOLVED™ PAPER

SOLUTION: Martin® Multi Port Air Cannon

INDUSTRY: Cement

LOCATION: Nuh Cement Plant Kocaeli Turkey

Nuh Cement Plant is one of Europe's largest cement plants.

Keeping components centralized allows for easier and safer service.

Meal Pipe Cyclone Discharge.

PROBLEM

Nuh Cement Plant is one of Europe's largest cement plants with three clinker production lines and a capacity of 4,100,100 tons per year. The plant was battling buildup problems in the third line's cyclone discharge pipe following meal pipe expulsion. The buildup of sticky material created blockages leading to a smaller output opening at the bottom of the cyclone discharge pipe, causing serious production loss. To combat the blockage issues, the plant resorted to replacing the spare cyclone discharge, which required a 30-hour shutdown period (not including the cool down and heat up process). This forced stoppage had to be done every 5-6 months - when the cyclone disharge was no longer in operating condition - causing extra labor costs and time losses for the plant. With the third line's daily capacity reaching 7,200 tons, Nuh Cement Plant was losing a yearly production of 18,000 tons.

SOLUTION

To prevent blockages in the Cyclone discharge pipe, Martin Engineering determined suitable places for air nozzles, and installed two Martin® Multi Port Air Cannons. Martin® Multi Port Air Cannon technology provides easier service and maintenance as the components are centralized, minimizing exposure to heat and dust for personnel and moving parts. Martin® Multi Port Air Cannons use a single air reservoir with a control unit to replace up to eight traditional, tank-and-valve air cannons, improving process efficiency. Eliminating the need to hang heavy air tanks on vessels, installation is simple. The system is ideal for standard and severe-duty applications (high temperature/dust/stress).

RESULTS

The Martin® Multi Port Air Cannon released air blasts on the bottom of the cyclone, breaking up and releasing material buildup and allowing for better material flow. The air cannons are performing with high-efficiency results and plant personnel have detected no blockage problems.

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