



PROBLEM SOLVED™ D5D9F

SOLUTION: Martin® Air Cannons

INDUSTRY: Cement

LOCATION: Suwannee American Cement Company
New Branford, Florida



Martin® Air Cannons were installed on the pre-heater to maintain material flow into the kiln.



Installation of the air cannon system was performed by MartinPLUS® Installation Services.

PROBLEM

Designed by Polysius, this new plant includes a four-stage pre-calciner with a 158-foot (48-meter) long by 13-foot (4-meter) diameter two-station kiln to produce 2,500 tons per day of clinker.

Air Cannons were not included in the design of this new plant. But based on his 25 years in the cement industry, Production Manager Tom Messer knew they would be required to avoid shutdowns due to blockages of the material flow through the kiln pre-heater.

"I've seen the problems that can arise from plugs and choking of the pre-heater," Messer explains. "I've seen the high labor costs and the production losses that come from having to shut down the tower to break up a blockage."

SOLUTION

Messer and Martin Engineering developed a plan for the installation of 45 T³⁰® Air Cannons on the new pre-heater. Crews from Martin Engineering's MCEA USWU® Quality Control Services group installed the pre-heater air cannon system.

RESULTS

After 60 days of operation at the new plant, there have been no problems in keeping the pre-heater inlet and feed shelf clear.

"We haven't had to put an air lance inside the vessel yet," Messer reports.

"We know there's no buildup now," Messer continues. "The plant has been down a couple of times for other maintenance or start-up issues, and so we've done visual inspections inside the pre-heater. We didn't see any buildups whatsoever."

That was Messer's idea when he ordered the air cannons. "Our goal going in was to provide a system so we would never need to shut the plant down to clean the pre-heater ducts," he said.

"With the air cannons installed, we're hoping that we'll never need to clean the inlet or the feed shelf with anything other than the air cannons."

Martin® XHV Air Cannon Valve is protected by U.S. Patent No. 5,853,160.

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