



PROBLEM SOLVED™ PAPER

SOLUTION: Martin® Air Cannons

INDUSTRY: Cement

LOCATION: CEMEX USA Balcones Plant
New Braunfels, Texas



CEMEX Balcones Plant, New Braunfels, Texas

PROBLEM

Material would build up at the inlet to the fourth stage (the highest level) of the pre-heater tower. These accumulations choked the flow of material, reducing the plant's production from its design rate of 3000 to 2700 tons per day.

To regain capacity, the plant would take unscheduled outages to allow manual cleaning of the ducts. But after the cleaning, the buildup would resume, with flow choked again within ten days.



The Martin® Air Cannons installation included Martin® Thermo Safety Shields to protect maintenance workers from exposure to high temperatures.

SOLUTION

Martin® Air Cannons were installed on the inlet to the fourth stage of the pre-heater. The installation included angled discharge nozzles, to prevent material falling back into the air cannons, and Martin® Thermo Safety Shield to protect maintenance personnel required to inspect or service the air cannon system.



At the CEMEX Balcones Plant, the Martin® Air Cannon System paid for itself through improved production capacity in less than one week.

RESULTS

Periodic checks of airflow through the fourth stage inlets by plant personnel indicate there is no material buildup.

With the plant's increased production rate, the air cannon system paid for itself in less than one week.

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

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