

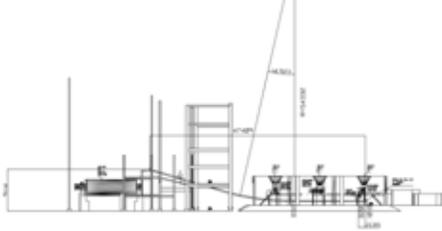


PROBLEM SOLVED™ D5D9F

SOLUTION: Martin® Air Supported Conveyor

INDUSTRY: Cement

LOCATION: Cementos Progreso
Planta San Miguel, Guatemala



Cementos Progreso's Planta San Miguel required an improved conveyor to activate previously idled storage.



The Martin® Air Supported Conveyor installed at Cementos Progreso was engineered with a vertical curve in the center third of the conveyor's 156-foot (47.4-m) length.



The totally enclosed Martin® Air Supported Conveyor was retrofit onto the structure of an existing belt conveyor.

PROBLEM

As it reactivated a previously idled section of the plant, Cementos Progreso needed to upgrade the conveyor to carry clinker from storage to its grinding operation, while minimizing the escape of spillage and dust.

In addition, the conveyor needed to include a vertical curve in the center of the conveyor. The first one-third of the conveyor's 156-foot (47.4-m) length was flat, where the belt runs under the belt feeders that pull material from three clinker silos. The middle section was curved to reach a height of roughly 7 feet (2.1 m). The final section of the conveyor was inclined to raise the load to its discharge height of approximately 26 feet (7.9 m).

SOLUTION

The Martin® Air Supported Conveyor features a modular design that retrofits onto CEMA-standard conveyor structures, to allow the upgrade of portions of existing belt conveyors. It is a totally enclosed system that serves as a plenum, allowing airborne dust to return to the main material cargo without escaping to the outside.

For the conveyor's vertical curve, the unique design of the Martin® Air Supported Conveyor allowed the modular sections of the conveyor to be mitered to form a smooth arc.

RESULTS

The 30-inch (762-mm) air supported conveyor carries clinker at a rate of 340 tons per hour at 225 fpm (1.1 m/sec). Supported on its return side by conventional rollers, the conveyor is loaded by three feeder belts pulling material from storage hoppers.

Cementos Progreso officials are pleased with the performance of the air supported conveyor and its potential for improving the amount of dust released in the plant. They have since purchased a second air supported conveyor.

Martin® Air Supported Conveyor is protected by U.S. Patent No. 6,966,430.

Form P1135

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