



PROJECT PROFILE

Long-bag technology maximizes filtration in a smaller footprint

THE SITUATION

A North American cement producer was experiencing short filter bag life and high-pressure drop across the clinker cooler baghouse. The plant was also challenged by the demanding production schedule and very limited space for new equipment.

THE SOLUTION

Scheuch's engineering team worked with the client to develop an implementation plan that fit within the plant's operating schedule and limited footprint.

The proposed solution addressed the key challenges: a very short implementation schedule along with fitting within the small footprint available.

PROJECT IN BRIEF:

EQUIPMENT & SERVICE

- Engineering
- Dust Collector
- Duct Work
- Commissioning

INDUSTRY

- Cement

APPLICATION

- Emission Control
- Process Exhaust
- Material Handling

Scheuch was able to retain much of the existing ductwork and other structural elements by adapting its designing to the situation.

A key consideration was ensuring that the gas flow was evenly distributed through the baghouse so that pressure drop and wear are minimized while maximizing the bag life.

Using Computational Fluid Dynamics (CFD), the airflow was modeled through the ductwork and baghouse, helping engineers to identify where to locate baffles and other flow management devices to ensure even flow through the baghouse, effective bag cleaning, and minimum pressure loss.

Through the use of CFD, a drop-out box was designed to address the short bag life and emissions performance issues experienced by the customer with the existing technology.

Scheuch long-bag filter technology would be used to provide the maximum filtration area in a smaller footprint; making installation in the existing plant easier. The baghouse would be pre-assembled in a location adjacent to the existing baghouse. Once the downtime started, the baghouse was set into position and the duct connections restored within one week.

Immediately following the installation of the baghouse, the customer realized an improvement of pressure drop of nearly 12 mb and instantly fell into compliance on its particulate emissions.

This customer, once reluctant to install the first EMC bag filter in North America, now has seven (7) EMC bagfilters at two locations in the Southeastern United States.

[Contact Scheuch to learn more about this project.](#)

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