

Plastics Composites Molder Looks to SonicAire for Combustible Dust Solution



“The main challenge is when the dust is out of reach,” notes Tracy Gray, Plant Manager of the CSP Lenoir location. “Our ceilings reach to 45 feet, and our molding presses are more than 20 feet tall.” When dust accumulates in these areas, cleaning isn’t a simple process.

Dedicated to best practices in all facets of its business, [Continental Structural Plastics \(CSP\)](#) was determined to find the best solution for eliminating combustible dust, which can lead to fire and explosion events in plastics manufacturing environments.

The company manufactures products using lightweight, advanced composite materials for the automotive, marine, HVAC and construction industries. Part of the Teijin Group, CSP is a global leader in plastic composites, molding and assembly operations.

To mitigate the combustible dust risk generated by this production, CSP installed [SonicAire](#) industrial dust control fans in their Lenoir, NC location. The results have been transformative.

Safety, Savings and Convenience

Installing SonicAire fans has provided a trifecta of benefits for CSP.

“We previously had to have a crew come in and physically wipe down the presses,” explains Gray. “The cleaners had to harness in, establish framing for the harnesses, inspect them, and then carefully work through cleaning each of the 15 large presses, wearing eye protection and safety gloves. It took a lot of labor hours to do all that.”

“We also had to schedule down-shifts to free up the presses for cleaning, and then work overtime in advance to prepare for the lost production time.”

One complete cleaning rotation required a total of 96 shifts of downtime. Gray reports, “The final tally for the cleaning service and the overtime required to free up the presses for cleaning was \$43,000 per year.”

SonicAire’s proprietary technology provides cost reduction and convenience, as the industrial dust control fans guide airflow to prevent the accumulation of dust particles on overhead structures. The [fans](#) work while the facility is in operation, to maintain the cleanliness of the plant.

Gray reports, “We run the fans 24/7, and they have kept the overhead areas constantly clean.”

“As an added benefit,” notes Gray, “the fans circulate the air so the exhaust system can pull air out of the roof more effectively. This has noticeably reduced the ambient temperature in the plant. Our presses operate at around 300 degrees, so the plant can get very warm in the summer months. This is a nice benefit to help keep our operators more comfortable.”

CSP was also pleased to discover that the fans did not add to the noise level of the facility. Gray points out, “One of our original questions was the decibel level of the fans, but, based on our studies, this isn’t an issue. The fans have not added to noise concerns.”

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“I’m very impressed with the way the fans work and the outcome of this project.”

– Dina Graham, CSP Corporate Director of Health & Safety

Industry-Wide Solution

Gray, who has worked in this industry for 27 years, explains that the concerns at the Lenoir plant aren’t unique. Any plastics composites production facility would have similar dust challenges. According to Gray, “Sanding composite components generates dust that transfers up, and above, and everywhere. A dust collection system can pull the dust away from operators to avoid inhalation, but you’ll still have the housekeeping issue for overhead areas.”

And what’s on the mind of safety professionals in the plastics industry today?

“The dust issue is one of our greatest challenges,” admits Dina Graham, Corporate Director of Health & Safety for CSP. “When we first got to see the plant after the fans were in place, I was amazed. The ‘before and after’ effect was substantial. The fans are a great tool for controlling dust concerns at the plant; helping with housekeeping and overall dust control for air contaminants.”

Engineered Solution

To create the most effective industrial dust solution for the Lenoir plant, CSP started by testing one SonicAire fan. This was installed in a high-dust area for easy monitoring. “We were able to evaluate how far away from the equipment we could place the fan and still effectively manage the dust,” Gray reports.



“Based on these results, we collaborated with SonicAire engineers on a first phase system design and then installed a total of 12 fans. Our next phase, to complete the facility, will involve the installation of 14 additional fans.”

The SonicAire Solution

Industrial dust control fans offer a proactive solution for plastics facilities. As a worldwide leader in this arena, SonicAire is dedicated to providing customized solutions that help prevent dangerous dust explosions and create cleaner, healthier work environments for plastic manufacturers.

To start reaping the benefits of industrial dust control fans, [contact](#) SonicAire for your personally engineered solution and quote.

“We saw such a dramatic improvement that we made the decision at a corporate level to put SonicAire fans in all of our locations, because we believe in the products.”

– Dina Graham, CSP Corporate Director of Health & Safety



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