

CASE STUDY

Plastic Extruder AZEK Sees Multiple Benefits After Installing SonicAire Dust Control System

The AZEK Corporation, manufacturer of extruded deck, rail and accessories for the residential, senior living, and construction markets was scrambling to keep up with the huge and unprecedented increase in demand for composite lumber brought on by the global pandemic of 2020. Because of consumer demand, they needed to find a solution for eliminating combustible dust, which can lead to fire and explosive events in plastics manufacturing environments. The solution also needed to reduce production impacts – all within a constrained labor market. “It definitely wasn’t business as usual” said Plant Engineer, Tom Matechik.

As a leading manufacturer of beautiful, low-maintenance building products, AZEK is committed to accelerating the use of recycled materials through its Exteriors, Versatex, Ultralox, and TimberTech brands.



To mitigate combustible dust risk generated in their production environment, AZEK installed a custom engineered SonicAire industrial dust control fan system in their Scranton, PA location on Corey Street. The results have been above and beyond their expectations.

Labor, Productivity and Environmental Benefits

Installing SonicAire fans has provided three primary benefits for AZEK. “Before we installed SonicAire’s fans, employees had to come in and physically, sweep, scoop and blowdown dust that accumulated on stairs, walkways, beams and production equipment,” he explained. “When cleaning the upper elevations employees had to go through significant EH&S protocols including building scaffolding and using ladders in precarious locations to get to hard to reach areas.”

“We were also using a significant amount of compressed air which was a hidden cost driver.” As soon as staff finished cleaning, the environment inched towards non-compliance immediately – and they had to start the whole process all over again.

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“SonicAire Fans have increased our production uptime and kept us dust compliant, all while increasing the air quality for employees working in our blending tower. We couldn’t be more pleased with the results!”

- Tom Matechik

Plant Engineer for AZEK Corey Street Facility

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According to Matechik, “It was crazy – we had to schedule our production in an environment where more and more demands were being placed on us for additional throughput.” The fans now work non-stop while the facility is in operation, maintaining the compliance and cleanliness of the plant automatically. “Not only do our personnel love being able to focus on production over housekeeping, the fans had a measurable effect on indoor air quality for our operators – which promotes employee satisfaction, productivity, turnover, and health.”

He explains, “We run the fans round the clock and they have kept our extruding and blending tower areas compliant and running at maximum productivity. We loved how things worked out – we are putting a second engineered fan system in our Keyser Avenue plant, and are anticipating similar benefits to labor savings, plant productivity, as well as employee satisfaction and health.” SonicAire worked with AZEK to help quantify air quality affects at the two plants. What was found was unexpected, but significant. In the upper levels of the Keyser Avenue plant AZEK was seeing microbursts of dust in the atmosphere in and around equipment when the blending tower filtration system was backflushing- creating piles of dust – both on the floor and in the plant environment.

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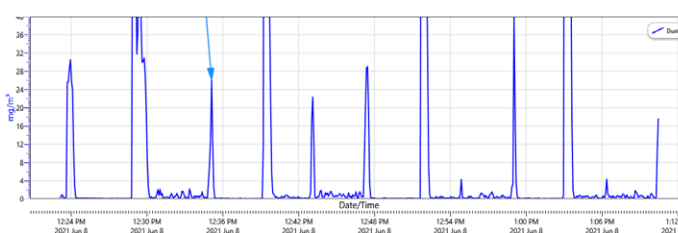
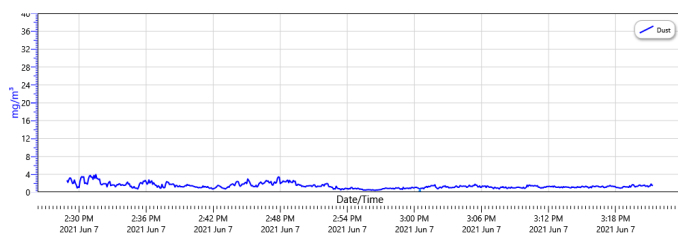
“I’m very impressed with the way the fans work and the outcome of this project.”

- Tom Matichek, Plant Engineer



Air Quality Benefits

“When we saw the effects at Corey Street we were really amazed. The ‘before and after’ effects on operations were substantial” said Keyser Avenue Plant Engineer, Tyler Kukosky. “This helped drive our decision to put the fans in at the second location as we expect that the fans will be a great tool for controlling dust buildup at the plant; helping reduce housekeeping needs and overall dust control.”



An Engineered Solution Tailored to Mitigate Pain Points for Plant Personnel

At the Corey Street, SonicAire brought in a professional EH&S partner to measure particulate. They found that the fans were able to keep particulate levels low - mostly under 2 mg/m³ of total particulate in the atmosphere while the fans were operating. At the Keyser Avenue plant in a similar blending tower setting, they found regular incursions of atmospheric dust in and around the equipment 10 times above that level. In addition to keeping the upper atmosphere clean and compliant as guaranteed - SonicAire fans also helped keep atmospheric dust levels down to minimum levels - creating a healthier and cleaner working environment for everyone.

The SonicAire Solution

Industrial Dust Control Fans offer a proactive solution for plastics facilities and blending operations in a variety of industries. As a worldwide leader, SonicAire is dedicated to providing customized solutions that prevent dangerous dust explosions and create cleaner, healthier work environments for manufacturers.

To start reaping the benefits of industrial dust control fans, contact SonicAire for your custom engineered solution and quotation.



We saw such a dramatic difference at our Corey Street location that we made the decision to put a SonicAire engineered solution in our Keyser Avenue plant.

– Tyler Kukosky, Plant Engineer