

Eliminating Spark Carry-Over in Steel Mill's Dust Collector

Challenge

A carbon steel mini-mill in the Midwest USA was having an issue with sparks reaching their dust collector. The client required a solution that would protect their facility from a potentially catastrophic event in their dust collector that could result in untimely disruption of production, costly maintenance expenses, and potential losses, both in terms of lives and property.

Mill management turned to Micronics, as their proven partner in the supply of filter media, routine baghouse maintenance services, and proven technical expertise to evaluate their spark concerns and provide recommendations for a long-term solution.



Before

Solution

After a thorough site evaluation was performed by the Micronics Engineered Filtration team, a spark arrester or "drop-out" box was deemed the best solution for mitigating against sparks and embers reaching the baghouse dust collector.

A spark arrester is a type of system modification which can be retrofit to an existing dust collector; it does not require as large a differential pressure drop to operate. Our modification was designed as a box-type chamber, with a baffle in the center, which was necessary to break down the dust particulate upon entry.



After

Micronics implemented a design that was efficient in removal of spark-laden, heavier particulate from the air stream, allowing the remaining particulate to continue on to the dust collector without risk of spark carry-over. The spark arrester configuration included an internal baffling arrangement. The spark arrester was outfitted with a rotary airlock to allow continuous discharge of collected materials.

Evaluation, design, and supply helped to protect the customer's facility and eliminate spark carry-over to this steel mill's dust collector. Whether with technology for eliminating dust or sparks, supply of filter media, or reliable baghouse maintenance services, Micronics is your trusted baghouse solutions provider.

Contact us and rely on the Micronics Engineered Filtration Group to be your source for solving baghouse challenges.