

MIDWESCO CASE HISTORIES

SONIC HORNS REVIVE BAGHOUSE CLEANING EFFECTIVENESS



A Midwestern Melt Shop's main baghouse was suffering from ineffective reverse-air cleaning of their 4800 filter bags. This Melt Shop with two furnaces was dirty, pressure drop at the baghouse was 10"-12" DP, and production rates were falling. The fifteen year-old baghouse has sixteen modules with over 30,000 square feet of filtration media per module.

Midwesco Filter was contracted to perform pitot-tube airflow studies on the baghouse and its reverse air cleaning system. Field data was collected over the course of four days covering an array of furnace operational conditions. The data was compiled and evaluated by

engineers. The flow study showed the Reverse-Gas cleaning system to be incapable of cleaning the elevated KO61 dust levels from the surface of the filter bags. Cost analysis reports were filed with the customer who evaluated a new, larger reverse air fan/ducting and sonic-energy augmentation with Midwesco Model 600 sonic horns.



The sonic horn system was the clear winner based upon lower initial capital cost (\$100K vs. \$400K), timely turn around time of the Midwesco horns and their

installation. The sonic horn system was delivered, installed, and commissioned within three weeks of order placement. A total of forty-eight sonic horns, pneumatic/electrical piping, and accessories were completed while the baghouse was online, not causing any interruption in Melt Shop operations.

After completion of the project, the differential pressure was reduced to 6" DP and follow-up airflow testing revealed that the "flows" in the baghouse had returned to "as designed" parameters. Both environmental and melt shop concerns had been addressed and satisfied with the demonstrated results.

Nearly one year later, Midwesco Filter and their satisfied customer can report that the baghouse pressure drop remains steady at 6" DP. Once again, Midwesco Products, Service and Technology are successfully delivered to revive a distressed EAF baghouse.

Contact your Midwesco representative to learn more details of this product and others.

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