

BHA® PulsePleat® filter elements

A US foundry solved baghouse problems restricting airflow to mold cooling and sand handling processes by replacing filter bags from CLARCOR Industrial Air.

Challenge

The 450-bag Carborundum pulse-jet baghouse was designed with a very aggressive air-to-cloth ratio of 9.3:1. Particulate from the sand handling system was very fine, and combined with high moisture and hydrocarbon carryover from the mold cooling line, created a very difficult dustcake on the bags. After only six months of service, blinded filter bags caused differential pressure to exceed 8" w.c., greatly reducing airflows venting the applications. Time-consuming filter bag and cage changeouts increased maintenance costs.

Solution

CLARCOR Industrial Air recommended replacing filter bags and cages with BHA PulsePleat filter elements to increase the total filtration area of the dust collector by over 220%. Physical modification of the collector was not required.

Results

- The increased filter surface area of the pleated elements helped lower average differential pressure to 3.5" w.c.
- Fan amps raised by 157%, thus increasing air volume through the dust collection system to provide the ventilation needed by the process applications.
- The one-piece bottom-load design of BHA PulsePleat filter elements reduced filter installation time by 70%.
- The improved collector performance convinced the foundry operators to budget for BHA PulsePleat filter elements in their sand reclaim dust collector as well.

One-piece BHA PulsePleat filter elements installed much easier than bottom load-style bags and cages, reducing maintenance costs while improving performance.

