

BHA® PulsePleat® Filter Elements

US tire manufacturer increased production on a Banbury mixer while reducing maintenance costs by replacing traditional filter bags and cages.

Challenge:

A high grain load of fine carbon black particulate caused the Rayjet™ pulse-jet baghouse to operate at a high air-to-cloth ratio (5.6:1) and double-digit differential pressure. The polyester filter bags were blinding and had to be replaced every few months.

Solution:

CLARCOR Industrial Air recommended replacing the filter bags and cages with BHA PulsePleat filter elements that provided increased surface area to lower the air-to-cloth ratio, and a smooth surface and tight pore structure to resist filter blinding by the fine particulate.

Benefits:

- The air-to-cloth ratio was lowered to 1.5:1 and differential pressure was decreased to under 5" w.c. (127 mm).
- The BHA PulsePleat filter elements lasted more than four times as long as the polyester bags before requiring replacement, reducing collector maintenance.
- The improved airflow to the mixer process allowed production to increase,
- Due to the success experienced, the company installed BHA PulsePleat filter elements in another baghouse venting a Banbury mixer. Air-to-cloth ratios in that installation were successfully reduced as well.

Comparison of filter surface area and airflow between BHA PulsePleat and traditional filter bags (all 6.25" diameter)

