

BHA® PulsePleat® Filter Elements

US tire and rubber producer resolved short filter life, high differential pressure, and frequent production interruptions in their Banbury mixing process by replacing filter bags and cages.

Challenge:

The mixing process for rubber compound used in tire manufacturing produced a fine carbon particulate discharge. This discharge was blinding the polyester felt filter bags in a 180-bag Wheelabrator™ pulse-jet baghouse. Filter life was limited to around six months.

When bags blinded, differential pressure rose to 10" w.c., airflow plummeted, and source emissions increased within the manufacturing area. The mixing line was frequently interrupted for off-line cleaning of the baghouse, lowering production rates.

Solution:

CLARCOR Industrial Air recommended replacing the 180 traditional filter bags and cages with 130 high-efficiency BHA PulsePleat filter elements. The greater surface area of the pleated elements increased filter area in the collector by 172% for improved airflow. The smooth surface of the spunbond filter elements provided better dustcake release to reduce filter blinding.

Results:

- Production interruptions for offline cleaning were virtually eliminated.
- Maintenance and air consumption costs were reduced.
- Decreased air-to-cloth ratio and operating differential pressure provided sufficient airflow to prevent source emissions in the workplace.

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

