

# Case Study

## BHA® PulsePleat® filter elements

**US quarry operation resolved short bag life and high maintenance costs for the rock crusher baghouse.**

### Challenge:

The rock crusher processes virgin aggregate of sticky limestone and granite used in asphalt production. The long filter bags extended far enough into the Flex-Kleen™ pulse-jet collector to expose the lower portion to inlet abrasion, causing premature bag failures. Bag life was only two to three months. Maintenance labor and replacement filter expenses were excessive, and production was impeded by frequent collector shutdowns

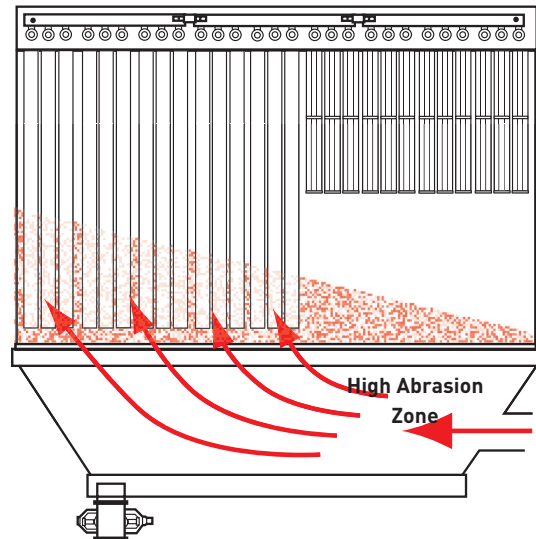
### Solution:

Parker Hannifin recommended replacing the 540 filter bags and cages with 150 PulsePleat filter elements. The bottoms of the shorter pleated filter elements were well above the incoming gas stream and not subject to abrasion. The increased filtration area of the pleated filter elements let the collector operate efficiently with 390 fewer filters.

### Benefits:

- Life of the filters was extended from two months for bags to over 2.5 years with PulsePleat filter elements, significantly reducing labor and replacement filter costs and allowing production without frequent baghouse maintenance interruptions.
- Differential pressure was reduced from 4-6" w.c. to 2-3" w.c.
- The reduced number of filters required less compressed air for cleaning, resulting in additional energy savings.

### Shorter BHA PulsePleat filters reduced abrasion damage



The shorter BHA PulsePleat filter elements kept them out of the High Abrasion Zone that damaged longer bags. Despite being shorter, PulsePleats filters increased the filtration surface area.

The open space below the filters created a "dropout space" that helped lower can velocity and allowed heavier particulate to drop out of the gas stream, effectively reducing the grain load to the filters.

