Gas Turbine Pre-Filter Life Extension
Proven at many sites in North America

Cheap pleated pre-filter products just do not provide the life expectancy or protection that gas turbine operators desire.

For that reason, AAF has developed a patented technology that allows users to pre-filter the air to a Merv 8 rating and still have a low initial resistance and very slow increase in resistance over time.

Problem
Several operators were complaining about having to change their pleated pre-filters every month or two due to increases in resistance across the filter. The pleated filters were very cheap, but the cumulative spend on materials and labor was a significant pain point for these operators.

The operators approached AAF as a world leader in gas turbine filtration to provide a solution that would improve the level of pre-filtration while at the same time lowering their overall operating expense.

Northeast USA
Industrial site near freeway with high levels of pollen and moisture present. Installed before heavy pollen season.

Operating at 2,200 CFM per filter, existing pleated pre-filters were changed twice during the first 3 1/2 months and a total of five (5) times over the course of eight (8) months.

Successful Outcome
The operator was able to achieve 12 months between changes with the AAF AmerShield product, which reduced the number of pre-filter changes by over 80%.
Working with AAF, the Client was able to keep the equipment down time to the absolute minimum, due to the rapid response and fast supply turnaround and subsequent successful installation.

The supply of new materials was carried out in a shorter lead time than the Client anticipated, which supported keeping production down time to a minimum.

AAF investigative work which identified the initial cause of the problems will ensure similar problems do not occur in the future and allowing a thorough and regular inspection/maintenance regime to be implemented to identify any potential future issues in advance of developing into a larger issue.

The benefits

Completed exhaust refurbishment

AAF Limited also offer:
- Air Intake Filtration Systems
- Intake Systems
- Hot Gas Exhaust Systems
- Waste Heat Recovery Units (WHRU)
- GT & AC Generator Acoustic Enclosures
- Ventilation Systems
- Bespoke Acoustic Screens
- Barriers and Enclosures for noise suppression.

Southeast USA

Installed in a GE Frame 7FA gas turbine at a combined cycle site. Very humid environment with heavy tree pollen.

The existing pre-filters were being changed ever four (4) months due to the increase in resistance.

Successful Outcome

The operator was able to achieve 24 months between changes with the AAF AmerShield product, which reduced the number of pre-filter changes by over 84%.

Superior Sealing Technology

Full Utilization of Media

84% Reduction
Quality, expertise and innovation

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