An Employee Owned Company
General Aire
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Company Profile:

DuPont Experimental Station research and development facility in Wilmington, De. Home to some of the world's most important scientific discoveries.

The Situation:

The DuPont Experimental Station was purchasing old style air filters through a national contract. The low-cost air filters were ultimately costing the site in excessive air filter changes, energy cost, labor and waste. Pre-filters were being changed quarterly and final filters were being changed once a year. The filters being used were the American Air Perfect Pleat and the American Air ASHRAE style MERV13 final filter.

The Action:

After multiple meetings with DuPont's global energy manager and discussing total cost of ownership, General Aire Systems was able to demonstrate a possible solution that would lower the cost associated with changing air filters, reduce the amount of energy used to move air through their air filters all while maintaining or increasing the indoor air quality of the facility. General Aire Systems completed a life cycle analysis to show what the savings could be and encouraged the facility manager to conduct on site testing. A building on site had 4 identical air handlers that were used to conduct over 500 days of air filter testing with data collection. The purpose was to find which combination would lower the overall cost of ownership, TCO including labor, energy consumption and initial cost.

The Result:

Testing took place over the 500 days with data being collected every 15 minutes. The Camfil 3030 pre filter and Durafil ES MERV13 was chosen as the lowest cost of ownership. The saving per year is $297,000.00