CASE STUDY

FG IAQ
Air Filtration

MAKING THE WORLD
SAFER, HEALTHIER &
MORE PRODUCTIVE

Filtration Group IAQ Solves Weather-Related Challenge with ENDURO-PLEAT® X3

A HEAVY DUTY PLEATED FILTER HELPED A FOOD MANUFACTURER.

INITIAL SITUATION

One of the biggest challenges for a food manufacturer is to keep their plant contamination-free. Governed by unyielding public health administrations and demanding procedural regulations, food plant facilities must comply. In addition to pest and disease control, food manufacturers must maintain optimal indoor air quality (IAQ).

When IAQ is ideal, operational facilities can better assure that their products meet all quality standards and their facility has met or exceeded all requirements. The filtration system needs to provide optimal circulation and remove small airborne contaminates and pollutants. Food manufacturers recognize that the quality of their product is directly tied to the quality of their filtration.

CHALLENGE

In the Midwest, a food manufacturing facility was operating with the required MERV 13 filters, which prevent bacteria, mold spores, pollen and dust from contaminating food production. However, there was no space to install a pre-filter. Finding a filter to meet FDA requirements to reduce contamination and withstand all weather conditions posed a challenge.

During inclement weather conditions, the filters would not hold up. The cardboard-constructed frames were not designed to be exposed to rain and snow. The filters would buckle, warp and blow out. With each storm or change in weather conditions, recently replaced filters would need to be replaced again. In order to maintain a properly functioning filtration system, the filters had to remain in place. To complicate this, the filter locations were difficult to access, which increased the production downtime and labor costs. During particularly heavy storms, 100% of the outdoor air would pass through the collapsed filters.

The food facility was spending an excessive amount of money on filters and wasting production time on replacement labor. Depending on the weather, the filters had to be changed multiple times a week and was not financially sustainable for the operation. On an average month, the cost of filter replacements totaled $7,200. Over a period of three months, the costs were as high as $21,500.

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SOLUTION

The food production facility contacted Filtration Concepts, Inc. and Filtration Group for assistance. The collective teams assessed the geographically-challenging, vertically-placed system. The team understood, due to increased environmental and food-related regulations, the MERV 13 filters were appropriate, yet the application was demanding.

Filtration Group IAQ worked with Filtration Concepts to design a MERV 13 filter that would withstand ambient conditions and effectively prevent the facility from changing filters too frequently. The redesigned filter, an ENDURO-PLEAT X3 with an internal steel frame effectively allows minimum restriction to air flow while maintaining the crucial high MERV 13 efficiency.

Today, the food manufacturing facility relies on the FG-provided filters and follows a routine filter change-out schedule every three months. The ambient conditions no longer play a part. The facility has successfully optimized its system and begun to save thousands of dollars.

ENDURO-PLEAT® X3
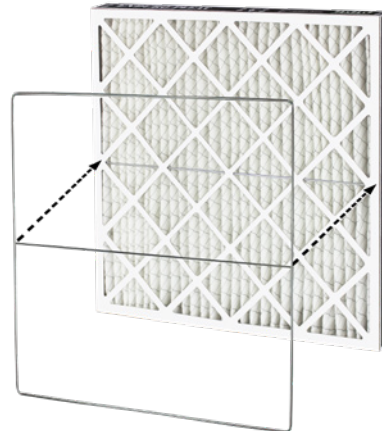
INTERNAL STANDARD STEEL FRAME

" Filtration Group HVAC's (now FG IAQ) response enabled us to help our customer solve the problem quickly. Their field sales teams understand customer service and it's why I've come to rely on Filtration Group HVAC and their products. "

JEFF THAYSE
Filtration Concepts, Inc.