

Case Study

Convenience Store Unclogs Drains and Cuts Waste with FPC Bags

Filter Products Company was contacted by a large Midwest based multi-state convenience store operator who needed a custom strainer bag to dispose of used coffee grounds quickly and easily without clogging the sink drain in the store. Filter Products engineering team worked collaboratively with the customer's Corporate Food Scientist to design a strainer bag that would meet their needs.

Customer Issue

This customer operates thousands of convenience stores in the Midwest region of the United States. These stores brew and sell dozens of commercial carafes of coffee each day. The customer standardized on a sophisticated coffee brewing system that includes an automated coffee grounds removal system. When brewing is complete, the system removes the grounds from the coffee brewer automatically and conveys them to a plastic bin fitted with paper filter located in a nearby sink. The bin and filter allow the liquid in the grounds to drain down the sink. After the latent liquid drains from the grounds, store personnel move the spent grounds to the trash. However, the paper filter was inadequate and frequently the grounds ended up down the drain and clogged the plumbing.

Unclogging the sink drain on a regular basis caused a lot of wasted time by store personnel. The issue was brought to the attention of the C-store chain field service people who asked the Corporate Food Scientist to come up with a better solution.

Filter Products Company Solution

The Corporate Food Scientist contacted Filter Products and one other potential supplier. Each was sent the plastic bin used in the sink and asked to provide a solution (see photo on next page).

In addition to preventing clogged drains, another goal was to design a strainer bag that could last 3- months before needing to be replaced, as opposed to the single use paper filter. Filter Products designed a rectangular sewn polyester multifilament mesh bag with an elastic top. Unlike the paper filter, the synthetic fabric maintains strength when wet, is reusable, securely attaches to the flange and conforms to the inside of the plastic bin (photo on next page) which prevents areas of higher stress.

Customer Result

The customer initially tested the effectiveness of the Filter Products Company strainer bag in a single location near their corporate headquarters. The results were very encouraging. Minor modifications were made to the elastic tension, and then a larger test across several pilot stores was implemented.

The customer representatives throughout the organizations (at store locations and in the corporate office) noted that the new process for draining and disposing of coffee grounds is much simpler, the waste from the single-use paper filters was eliminated, and the original objective of eliminating routinely clogged drains was achieved. The design was approved after the multi-store pilot programs, and the final design was rolled out to all store locations.

The customer was very happy to have partnered with Filter Products Company to solve this problem. The Corporate Food Scientist commented, "Filter Products Company was the best choice to supply these strainer bags because they were so responsive to all of my requests and really worked hard to earn my business."

Services Used

Filter Products Company provided custom design, product testing, and material sourcing to meet this customer's needs.

