



## Eaton provides the missing ingredient for leading mushroom farm

**Location:**

United States

**Segment:**

Food and Beverage

**Challenge:**

A filtration solution to decrease bag consumption and eliminate mushroom exposure to unfiltered water

**Solution:**

DURAGAF™ high performance, needle felt filter bag

**Results:**

Increase productivity, lower costs, and decreased consumption, resulting in a projected savings of more than \$22,000 per year.

**Eaton Corporation**

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**Background**

Proper washing of produce is essential to ensuring that the healthy fruits and vegetables everyone loves to eat are clean and nourishing before hitting the grocery store shelves. Utilizing the right filtration system can help make this process as thorough, efficient, and cost-effective as possible.

A prominent, family-owned mushroom farm in the United States that prides itself on performance, quality and innovation, filters 60 gallons of well water per minute in order to maintain the highest standards of quality and food safety. Unfortunately, the aging filtration system was not capable of withstanding the heavy water flow rate.

**Challenge**

The mushroom farm was using approximately 700 filter bags per year and needed to solve the problem of ripped seams to decrease bag consumption. Eaton discovered that the company's standard support baskets were not designed for the premium filter bags they were using. As a result, the filter bags frequently ripped open at the seam, causing the mushrooms to be exposed to unfiltered water. The mushrooms would then need to be rewashed, causing a significant loss of both time and money.

Eaton initially recommended an upgrade to an Eaton premium filter bag, along with a special support basket and a bag positioner that would aid bag insertion into the filter housing, and ensure correct alignment of the bag inside the support basket. However, to limit disruption to operations, the company did not want to make any changes to the existing support baskets.

To meet the mushroom grower's needs, Eaton had to provide a more durable and longer lasting filter bag that could be effortlessly integrated with the existing hardware.



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## Solution

Eaton accomplished that by recommending the DURAGAF™ high performance, needle felt filter bag. The DURAGAF filter bag does not require special support baskets and could be used with the current hardware, making it a high quality and cost-effective solution to the filtration problem.

Due to the many unique design features of the DURAGAF filter bag, it performs just as well as, if not better than, other standard polypropylene filter bags, but lasts up to five times longer. The bags are available in either polypropylene or polyester and the unique fiber blended materials have a finer fiber diameter and higher weight than standard filter bags.

The increased media thickness enhances the area in which particles are trapped, leading to a much higher dirt holding capacity. In addition, the welded construction of the side, bottom, and SENTINEL® rings eliminates the problem of ripped seams that can occur in standard sewn filter bags. Each of the unique features of the DURAGAF filter bag contributes to decreased consumption, reduced downtime, and lower storage and disposal costs.

## Results

With the integration of the DURAGAF filter bag, the farm's filtration system was no longer bursting at the seams.

The company ordered a four-bag trial of the DURAGAF, 1 micron, #2 size, FDA compliant polypropylene felt filter bag with a SENTINEL ring. The trial proved that the DURAGAF filter bags lasted longer than the previous premium bags.

As an added bonus, Eaton could offer the DURAGAF filter bags at a much lower cost. In addition, the company could use the new filter bags without making any changes to the existing equipment, eliminating the need to make costly purchases of new hardware.

With Eaton's help and a better crop of filtration bags, the mushroom farm was able to increase productivity, lower costs, and decrease consumption, resulting in a projected savings of more than \$22,000 per year.



Eaton's DURAGAF extended-life filter bag

Due to their special construction, DURAGAF extended-life filter bags made from polypropylene and/or polyester needle felt bags boast a service life which is between two and five times as long as that of standard needle felt bags.