



## Soap Maker Bubbling Over on Eaton Filters

**Location Details:**

USA

**Problem:**

Impurities in the soap due to an outdated filtering process

**Solution:**

Eaton's DCF-800  
Mechanically Cleaned Filter

**Results:**

The final product consistently meets purity goals and the manufacturing process is more productive and cost-efficient

**Eaton Corporation**

Filtration Division  
44 Apple Street  
Tinton Falls, NJ 07724  
USA  
732-212-4700  
[www.eaton.com/filtration](http://www.eaton.com/filtration)

*"...based on the results of the trial, the number of bars of soap that the company produces, and the cost to rework an out of spec product, it strikes me that the payback is going to be pretty quick."*

*Bruce Law, Regional Sales Manager*

**Background**

While maybe not quite as frightening as the famous Alfred Hitchcock shower scene, just imagine the shock of stepping into a hot shower, unwrapping your favorite bar of soap, and discovering that it's already dirty. It can happen.

That's because soap contains glycerin, which brings with it important moisturizing properties. During the manufacturing process, glycerin is heated and added to the soap formulation before it goes to final production.

However, the heating needs to be precise with little margin for error. When it is not heated properly, the soap can turn brown and even form brown specks that are small but still very much noticeable, hardly the 99 and 44/100% pure that a good soap needs to be.

**Challenge**

For one of the world's largest suppliers of bar, detergent and body soaps, meeting that lofty goal is imperative to success. Supplying virtually every type of soap made, the company on any

given day will see some 25 different brands of soap rolling down its production line.

Relying on an outdated heating and filtering process, the company often had to reroute soap back into the assembly line to remove the brown haze and specks caused by the improperly heated glycerin to ensure that quality objectives were always achieved.

The rerouting was necessary, but was inefficient, expensive and time-consuming. Additional labor was also required.

While the final product was eventually meeting purity goals, the soap giant very much wanted to clean up the process.

**Solution**

In doing so, they turned to Eaton Filtration and installed a DCF 800 filtration system for a 90-day trial run.

Both perform a self-cleaning action by mechanically scraping collected debris from the filter screen with a disc that moves



*Powering Business Worldwide*

Eaton Corporation is a diversified power management company ranked among the largest Fortune 500 companies. Eaton is a global leader in electrical components and systems for power quality, distribution and control; hydraulics components, systems and services for industrial and mobile equipment; aerospace fuel, hydraulics and pneumatic systems for commercial and military use; and truck and automotive drivetrain and powertrain systems for performance, fuel economy and safety. Eaton has approximately 70,000 employees and sells products to customers in more than 150 countries. [www.eaton.com](http://www.eaton.com)

©2012 Eaton Corporation, All Rights Reserved, March 2012

up and down the screen, parallel to the liquid flow. Collected debris is then automatically purged from the collection chamber at the bottom of the filter.

This self-cleaning action is performed without halting production and provides the highest quality filtering under continuous demand. Because the screen is cleaned continuously, a consistently high flow rate is maintained.

Uninterrupted filtering by the DCF also helps ensure consistent temperatures—a feature essential to meeting quality objectives.

**Result**

Before the 90-day test was even completed, the soap company was already washing its hands of the brown mess and has since ordered two new Eaton DCF-800 filters.

“Removal of the glycerin impurities was very successful,” reports Bruce Law, regional sales manager for Eaton’s filtration business. “The test unit delivered everything that we said it would.”

As a result, Law believes the costly rerouting of soap will soon be virtually eliminated.

“It’s still too early to gather a measurable return on investment,” adds Law, “but based on the results of the trial, the number of bars of soap that the company produces, and the cost to rework an out of spec product, it strikes me that the payback is going to be pretty quick.”



DCF-800 - One actuator delivers simple, reliable operation with water-like liquids. Ideal where a low initial investment is a key driving factor



Our unique circular cleaning disc design (MCF design shown) ensures intimate contact with the screen to thoroughly and uniformly clean the media



DCF-800 twin actuator model

**Note:** Features and specifications listed in this document are subject to change without notice and represent the maximum capabilities of the software and products with all options installed. Although every attempt has been made to ensure the accuracy of information contained within, Eaton makes no representation about the completeness, correctness or accuracy and assumes no responsibility for any errors or omissions. Features and functionality may vary depending on selected options.

All other trademarks are property of their respective owners.