



Soap Maker Bubbling Over on Eaton Filters

Location:
USA

Challenge:
Impurities in the soap due to an outdated filtration process

Solution:
Eaton's DCF-800 mechanically cleaned filter

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

"...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."

Nirag Shah, 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Relying on an outdated heating and filtration process, the company often had to reroute soap back into the assembly line to remove the brown haze and specks caused by the improperly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.



Powering Business Worldwide

Solution

In doing so, they turned to Eaton Filtration and installed a DOFF 800 filtration system for a 90-day trial run. The DOFF 800, a forerunner of the newer DCF-800 filters, is often used for trials.

Both perform a self-cleaning action by mechanically scraping collected debris from the filter screen with a disc that moves 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 filtration 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 Nirag Shah, sales manager for Eaton’s Filtration Division. “The test unit delivered everything that we said it would.”

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

“It’s still too early to gather a measurable return on investment,” adds Shah, “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.”



The 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



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

North America
44 Apple Street
Tinton Falls, NJ 07724
Toll Free: 800 656-3344
(North America only)
Tel: +1 732 212-4700

Europe/Africa/Middle East
Auf der Heide 2
53947 Nettersheim, Germany
Tel: +49 2486 809-0

Friedensstraße 41
68804 Altludersheim, Germany
Tel: +49 6205 2094-0
An den Nahewiesen 24
55450 Langenlonsheim, Germany
Tel: +49 6704 204-0

China
No. 3, Lane 280,
Linhong Road
Changning District, 200335
Shanghai, P.R. China
Tel: +86 21 5200-0099

Singapore
100G Pasir Panjang Road #07-08
Singapore 118523
Tel: +65 6825-1668

Brazil
Av. Ermano Marchetti, 1435 -
Água Branca, São Paulo - SP,
05038-001, Brazil
Tel: +55 11 3616-8461

**For more information, please
email us at filtration@eaton.com
or visit www.eaton.com/filtration**

© 2020 Eaton. All rights reserved. All trademarks and registered trademarks are the property of their respective owners. All information and recommendations appearing in this brochure concerning the use of products described herein are based on tests believed to be reliable. However, it is the user's responsibility to determine the suitability for his own use of such products. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by Eaton as to the effects of such use or the results to be obtained. Eaton assumes no liability arising out of the use by others of such products. Nor is the information herein to be construed as absolutely complete, since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations.

US
02-2020