THE CHALLENGE

A Canadian chemical supplier was experiencing sediment carryover, inconsistent differential pressure and occasional filter bag ruptures during sodium hypochlorite production and packaging. The two filter banks used different micron ratings. Production bags were changed at very low differential pressure, while packaging bags often operated at excessively high pressure differences, increasing maintenance requirements and the risk of bag failure and contaminant bypass.

THE SOLUTION

John Brooks filtration specialists reviewed the application and recommended Eaton DURAGAF 1-micron Extended-Life Filter Bags for both stages. Trials assessed particle retention, differential pressure and bag life. The bags improved contaminant retention, extended service life and supported more balanced operating conditions while allowing the facility to standardize on one bag type.

THE RESULTS

- More than 50% lower annual filtration costs, with savings of approximately $17,650
- Annual bag consumption reduced from approximately 2,392 to 676 bags
- Longer filter life and fewer changeouts, reducing maintenance labour
- Improved particle retention, reducing sediment carryover risk and supporting finished product quality
- More balanced differential pressure, helping reduce bag failure and bypass risk
- Simpler inventory management through one bag type for both stages





Case Study

Eaton DURAGAF Filter Bags Improve Performance and Cut Filtration Costs by More Than 50 Percent

Sodium hypochlorite filtration at a Canadian chemical supplier

Technology Utilized

Eaton DURAGAF Extended-Life Filter Bags

- 1-micron nominal filtration rating
- Extended-life media with greater contaminant-holding capacity than standard needle felt bags
- Fully welded construction with a SENTINEL seal ring to help prevent bypass
- Surface-treated media to reduce fiber migration

How It Works

1. The process liquid passes through the filter bag, which captures suspended particles within the media.
2. The thicker, extended-life media holds more contaminants than standard needle felt bags, allowing longer service between changeouts.
3. The SENTINEL seal ring helps prevent liquid from bypassing the media. Using the same 1-micron bags at both stages improves particle removal and simplifies replacement, helping lower operating costs.

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