

Optimizing Filtration Costs for a Global Soft Drink Manufacturer



THE CUSTOMER

A global leader in the production of soft drinks and non-alcoholic beverages. As part of an industrial cost optimization program, the company sought our technical support for its filtration processes. A long-standing Global Filter partner, the customer has relied on our expertise for several decades to identify, qualify, and implement the most suitable filtration solutions for its operations.

THE CHALLENGE

The technical challenge was to optimize the total cost of filtration while maintaining the customer's quality requirements. Each proposed solution had to reduce operating costs without compromising finished product quality or process safety.

Three areas were identified as key opportunities for improvement:

- Filtration of 65° Brix sugar syrup
- Final filtration of apple cider
- Final filtration of sweeteners prior to use

THE SOLUTION

An assessment of the customer's processes, operating conditions, and quality requirements enabled the Global Filter team to propose the following solutions.

Sugar Syrup Filtration

As the supplier of the existing filtration solution for more than 10 years, Global Filter proposed replacing the 30 µm wound cartridge filtration system with a **bag filtration solution** equipped with our **GPE10P2SS-AS filter bag**.

The customer immediately realized the benefits of this solution, including reduced maintenance costs while maintaining the same finished product quality.

Final Apple Cider Filtration

The customer was using a staged filtration system consisting of a 1.2 µm polypropylene pleated cartridge followed by a 0.45 µm polyethersulfone membrane.

Based on the customer's requirements and the yeast retention objective, we proposed and tested filtration using our **absolute-rated 1 µm pleated polypropylene cartridge**, reference **PP1A30C7S**.

Following a successful testing campaign, the proposed solution was implemented. **Immediate savings were achieved through the replacement of the membrane cartridge with an absolute-rated pleated cartridge.**

Additional benefits were realized over time through **extended replacement intervals**, further **reducing labor and maintenance costs.**

Due to the significant reduction in total filtration costs, the customer subsequently installed two filtration stages in series using our **PP1 A30C7S** cartridges to further secure the filtration process.

Sweetener Filtration

The customer is currently using a 0.8 µm polysulfone membrane, reference **GHPS 0.8A 20C2S**.

Ongoing development: We are currently conducting trials with our pleated polypropylene cartridges to evaluate their potential impact on the customer's total filtration costs.

CONCLUSION

Our expertise, combined with a collaborative partnership spanning more than twenty years, enabled us to support this customer in optimizing its total filtration costs.

By proposing and validating solutions fully aligned with the process requirements, **we helped the customer achieve savings in:**

- Consumable costs
- Maintenance costs through reduced intervention frequency (longer operating cycles)
- Waste management costs through a reduction in the number of filters requiring disposal and recycling each year

