



Food and Beverage

YOHO Brewing Achieves Beer Stability with PROFi Craft 6

According to Grandview Research, the global craft beer market size is expected to reach USD \$503 billion by 2025, expanding at a compound annual growth rate (CAGR) of 19.9%. As the market continues to grow, craft beer producers all around the world are working feverishly to meet demand and produce beer for consumers to enjoy. While each brewery produces its own unique products, a majority of them face similar production challenges. One brewer, in particular, looked to Pall Corporation to help them improve their process.

YOHO Brewing started in 1996 in Nagano, Japan and has grown in popularity ever since inception, with its craft beer consumption spreading to other regions across the globe. YOHO Brewing's mission is to provide original, high-quality craft beers to people around the world to bring small happiness and eventually, make the world a better place.

The Challenge

For YOHO to meet its mission to provide high-quality beer, unit director, Naoshi Kato decided to partner with Pall Corporation to tackle one of the biggest brewing challenges: improving beer quality through the control of oxygen uptake during the production process. Controlling the oxygen adsorption is essential to keep freshness and stability in the final packaged product.

"Our team put a lot of effort toward identifying areas of adsorption by investigating the oxygen levels at each stage of the beer production process. This is a testament to our dedication to our mission, as we continually look for ways to improve the quality of our final product," says Kato. "By looking at ways to improve at each stage of the process, we discovered that the amount of dissolved oxygen increased in a diatomaceous earth (DE) filter significantly."

The team at YOHO already knew that crossflow filtration was a filtering method that prevents dissolved oxygen from impacting the final product. However, most crossflow filtration systems are made for large-scale breweries, and processed quantities well-beyond YOHO's typical production requirements. Furthermore, it did not meet YOHO

Brewery's budget — so even though there were solutions available, they could not utilize them.

The Solution

In the midst of Kato's frustration over identifying a cost-effective and reliable solution, he was introduced to Pall's **PROFi Craft 6** System.

"I was stunned — I remember saying, 'this is the exact product we've been looking for — the perfect solution exists!'" — Naoshi Kato

The PROFi Craft 6 System is a modern beer clarification solution designed specifically for craft breweries that minimizes waste, water and utility consumption while increasing brewery production efficiency. It combines a high-performance centrifuge with a "zero retentate" crossflow membrane filter unit to provide efficient, DE-free clarification of beer.

But that wasn't the only surprise for Kato "I was stunned again when we found out how quickly we would see the return on investment due to the system's impact on liquid loss."



Naoshi Kato, YOHO unit director



PROFi Craft 6 System

The Benefits

YOHO Brewery knew that the PROFi Craft 6 System would have immediate impact on their business for three main reasons:

- 1. The system would keep product quality high, as there would be no change in the amount of dissolved oxygen before and after filtration**
- 2. The system would reduce costs through decreased liquid beer loss**
- 3. The system would improve productivity because it would require less manual labor**

"Of course, changing from a DE filter to a crossflow filter device also has advantages such as cutting down on liquid loss, but for us, the deciding factor was maintaining a high-quality product,"

said Naoshi Kato. "YOHO Brewing has a specific "flavor" that we want to maintain and we adopted the PROFi Craft 6 in order to maintain that "flavor" as long as possible. It was important to our team that our beer's deliciousness remain for several months. To ensure that the crossflow filtration wouldn't impact taste, we did a taste comparison. When we drank our beer from a DE filter versus crossflow filtration, our sensory evaluation was positive."

As a result of implementing the PROFi Craft 6 technology, YOHO Brewery gained high-quality beer that will remain shelf-stable for months, as well as a cost-effective and efficient process solution to their craft brewery production process.

To learn more about how the PROFi Craft 6 System can help you, contact your local Pall representative.



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