

BEVERAGE FILTRATION SOLUTIONS BMF +Flux Compact S4

PRINCEN BREWERY - 20,000 HL ANNUAL OUTPUT

CASE STUDY

NO GOING BACK TO DE FILTRATION



FAST FACTS

Brewery

Princen Brewery, Halfweg, the Netherlands

Annual production

Approx. 20,000 hl

BMF +Flux Compact S4 capacity

30-60 hl/h

Start-up

2017

BENEFITS

- No DE handling
- Fully automated process, minimal labor needs
- Consistent beer quality
- Improved freshness



Pentair's new compact Beer Membrane Filtration (BMF) system is the ideal solution for craft and small breweries with a 10,000 to 100,000 hl annual output. The first BMF +Flux Compact S4 was installed at the Princen Brewery in the Netherlands in early 2017 and continues to operate successfully.

"From the beginning, we wanted to concentrate on a Premium Pils to challenge the established brands," explained Mark Schneider, director of Princen Brewery. His strategy has proven successful and since 2013, the Dutch brewery has continued to grow. Currently, the annual beer production is 20,000 hl that is distributed in kegs and 100 or 200 hl tanks.

BMF allowed Princen to eliminate DE

Initially, Princen used diatomaceous-earth (DE) filtration. This process was labor intensive and required expensive quality management to achieve maximum freshness and taste stability. The DE's iron content, oxygen intake, and sedimentation quality contributed to the challenges. In addition, complex DE handling, including supply and disposal, was required.

The brewery's goal 'premium quality with low manual labor requirements', for which the Princen Brewery strived, looked completely different. Consequently, the brewery looked into BMF as this type of filtration is DE-free and gives brewers a fully automated process.

In early 2016, Pentair installed a pilot BMF system at Princen, to perform initial tests in regards to creating the perfect membrane infiltration process for smaller breweries.

"We realized straight away that there was no going back to DE filtration," Schneider recalls. True to his word, the DE filter at Princen has not been used since the BMF pilot was installed. Princen ordered a BMF +Flux Compact S4 and the brewery leased the pilot system to cover the time until the new filter could be delivered and commissioned. This was a good test on the pilot system that operated nearly 24/7 to accommodate Princen's production.

In January 2017, the BMF +Flux Compact S4 went into operation at Princen. This BMF system features four type R-30 membrane modules with a filtration capacity of 30 to 60 hl/h. The preassembled filter unit is a stand-alone solution on a stainless steel frame. All that is needed to install the BMF in an existing brewery are incoming and outgoing beer connections, water, power, compressed air, and carbon dioxide. The filter unit's compact footprint, which measures 3.5 by 1.5 meters is a major advantage for easy integration.

Making BMF a viable option for craft and small breweries

Pentair introduced the world's first commercial large-scale BMF system for DE-free beer membrane filtration in 2002. Since then, more than 100 BMF systems have been commissioned that currently filter 100 million hl of beer annually.

With the introduction of the BMF +Flux Compact S4 Pentair offers craft and small breweries major advantages compared to DE filtration. In addition to eliminating the negative aspects of DE, BMF provides the flexibility of true start/stop filtration, a fully automated process, and a constantly high microbiological safety.

Schneider is pleased with making the move to Pentair's BMF +Flux Compact S4. "Membrane filtration has made our beer much fresher and lighter," he said. "Our analyses show this just as clearly as the positive feedback from the market."



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