



#### THE CHALLENGE:

Zagrebačka pivovara was looking for a partner with proven expertise in cold stabilization for their new premium unpasteurized lager. The main challenges were limited accessibility of the installation location and a quick turn around time.

#### SOLUTION:

In partnership with Parker, Agidens' engineering team provided a tailor-made cold stabilization module (CSM) solution using PREPOR NG and BEVPOR BR filters. The system consisted of three modules that could be disassembled and reassembled on site.

#### BENEFITS:

Sterile filtration solutions provided by Parker are designed to allow brewers to significantly reduce the costs of microbial stabilization while protecting the beer's sensory appeal.

## COLD STABILIZATION MODULE FOR ZAGREBAČKA PIVOVARA'S NEW PREMIUM LAGER

Zagrebačka pivovara was the first industrial brewery in Croatia. Today, it is the largest beer manufacturer in Croatia, holding 44% of the market in 2017. It is part of the Molson Coors brewery which is the world's seventh largest brewery.

Zagrebačka pivovara was looking to expand its product range with a premium, non-pasteurized lager. The brewery was looking for a partner with proven expertise in the field of cold stabilization and Parker in partnership with Agidens, took up the challenge and implemented a Cold Stabilization Module (CSM) on the brewery site.

The CSM uses Parker's PREPOR NG and BEVPOR BR filters in a combination to achieve microbial stability while protecting the taste characteristics of the premium lager.

## Specification

For Parker and Agidens, the challenge at Zagrebačka Pivovara was mainly the limited accessibility of the location where the module had to be installed. The site was only accessible via a tiny elevator (1.80m x 1.80m x 1.00m), which meant that the CSM had to be custom designed, disassembled and transported before it could be installed on site. In addition, a quick turnaround of five months needed to be met.

## The Parker Solution

In partnership with Parker, Adigens' engineering team provided a tailor-made CMS solution that was integrated into the existing production line. The CSM installation consists of three modules: a filtration skid, a distribution cluster and a CIP skid - for a total length of 6.75 metres. The modules were assembled in the workshop, disassembled for transport and rebuilt on site. The system filters an average of 250 hectolitres of beer per hour.

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Parker's BEVPOR BR range of filters have been constructed with a unique polyethersulphone (PES) membrane offering a long service life and, therefore, a highly efficient and low cost of operation in sterile filtration of beer applications. PREPOR NG filters have been specifically developed to remove yeast and particulate such as filter aids and haze components. The superior level of retention ensures that a consistent quality of brew is delivered to bright beer storage while also offering a greater level of membrane filter protection during cold stabilization.

From a filtration perspective, it was important that the correct choice of filtration was made to cost-effectively achieve microbial stability without impacting the quality and taste of the premium lager.

“ We're delighted that our partnership with Agidens Process Automation has been able to create an effective solution for Zagrebačka pivovara.

By using cold stabilization modules in their processes, breweries can benefit from the numerous advantages that sterile filtration has over pasteurization, such as reducing product losses and energy costs, while protecting taste from the effects of heat treatment and increasing shelf life. ”

**Lee Pattison, Product Manager, Parker**

“ The cooperation with Agidens was flawless and they have fully met our expectations with their CSM module. ”

**Tomislav Rorbach, Process Optimization Engineer, Zagrebačka pivovara**