

## **CASE STUDY**

## FOUNDERS BREWING CO. - PENTAIR CCR CARBONATOR FOR INCREASED ACCURACY AND PRODUCTIVITY

Inline - Static mixers - Fully automatic - High flow rates - Function-tested "plug-and-play" module

In a Nutshell:

Founders Brewing Co.

Grand Rapids, Michigan, USA

Output: approx. 320,000 hl/a

15th largest brewery in the USA

**Portfolio:** Ten beers as standard assortment, many seasonal and pure draught beer brands as well as other specialities

such as barrel-aged beers.

Installed system: Carbo Controller CCR

Founders Brewing Co. had clearly defined its investment objective: The brewery was looking for a more accurate, reproducible, less labour-intensive and not least faster solution than the static tank process to adjust the  ${\rm CO_2}$  content of its beers. In addition, carbonization should take place "inline" – with the highest accuracy even at the large volume flows that occur during beer clarification using a separator. The brewery sold its diatomaceous earth filter in 2001. Since then, all beers have been clarified only centrifugally.

Consequently, Founders opted for an inline carbonator type Carbo Controller CCR. The function-tested module delivered to the USA comprises a  $\mathrm{CO_2}$  dispensing block, the individually designed static mixers, pressure control valves and the measuring and control instruments for fully automatic control and dispensing of the  $\mathrm{CO_2}$  between separator and filling line. All functional units are pre-wired on a common tubular frame including control unit and lines. Accordingly, the Carbo Controller was quickly integrated into the production process at Founders and put into operation.

## Second Carbo Controller already ordered

Since its commissioning, the Carbo Controller has been working to the brewery's complete satisfaction. It currently carbonates over ten different types of beer. Founders uses the Carbo Controller only for carbonization. The controller then dispenses the  $\mathrm{CO}_2$  into the beer stream according to this specification. The Carbo Controller injects the  $\mathrm{CO}_2$  at the entrance of the solution section. The  $\mathrm{CO}_2$  is then finely distributed and dissolved using static mixers designed for the specific process conditions. In addition to controlling the carbonization process, the  $\mathrm{O}_2$  content in the end product can also be monitored inline to ensure product quality.

"As brewers, we want  $\mathrm{CO_2}$  to be dissolved as completely as possible so that nothing is wasted. The Pentair carbonator is our perfect solution to this challenge," summarizes Jeremy Kosmicki, master brewer at Founders. Visible sign of this satisfaction: Just three years later, Founders Brewing Co. ordered a second Carbo Controller from Pentair.



## PENTAIR SÜDMO GMBH

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