# Award Winning Savings at Craft Brew Alliance with Paxton's Ionizing Bottle Rinser

In 2017, the management of Craft Brew Alliance (CBA) installed state-of-the-art new air rinsing technology provided by Paxton Products, in support of the company's goals for brewery-wide sustainability and decreased water and sewer usage. This smart choice resulted in annual sewer and water cost savings of \$24,000.

### Background

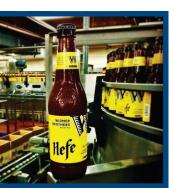
The Craft Brew Alliance was formed in 2008 by the merger of Redhook Brewing of Seattle, WA, and Widmer Brothers Brewing in Portland, OR. In 2010, CBA expanded, with Hawaii's Kona Brewing joining the Alliance; and since then, has continued to expand with regional brands and breweries across the nation. Today, CBA is one of the largest craft brewing companies in the United States, with CBA beers available in all 50 U.S. states and 30 countries around the world. CBA is headquartered in Portland, Oregon, and the Oregon brewery employs 25% of the organization's 800 employees, and makes about 60% of the company's beer, with about 70% of that being bottled.

As one of the largest craft brewing companies in the U.S., Craft Brew Alliance believes it has a responsibility to be a leader in both the quality of their beers and the sustainable ways in which they make them. Sustainability is a cornerstone of their business, and they are committed to minimizing the environmental impact of their breweries and brewpubs. In 2017, CBA undertook a project to reduce water usage, and corresponding sewage costs, at its Portland brewery.



### **Brewery Operations**

The Portland brewery's bottling line produces 550 bottles per minute. A Bevco rinser was employed for water rinsing the inside of the bottles prior to filling, using an estimated 600,000 gallons of water a year. A Paxton Products drying system, purchased in 2012, is used for bottle drying after filling, but prior to labeling. Paxton drying systems are also used at other CBA facilities nationwide. CBA personnel became familiar with the Paxton lonized Air Rinser, and invited Paxton in to get more information about whether the Air Rinser could help with their sustainability goals.



Paxton Products Western Regional Sales Manager, Patrick Donovan, and Distributor rep, Aaron Mason of Rogers Machinery Company, visited the CBA bottling plant in Portland to assess the plant's need for bottle rinsing using ionized air. Then, working with Paxton's in-house engineering team, they developed a customized solution to replace the Bevco water rinser. Based on the size and speed of the plant's bottling operation, the experts recommended a Paxton's Ionizing Bottle Rinser, equipped with Variable Frequency Drive (VFD).

Paxton provided the CBA decision-makers with documentation and recommendations from several other craft breweries using the Paxton system. Paxton also provided QA results from beverage applications, demonstrating the additional benefit of improving the beer quality by lowering the dissolved oxygen content of the beer due to the use of ionized air.



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After hearing these satisfied clients in their industry attest to the product quality improvement, the excellence of Paxton's system and Paxton's strong customer service, the CBA managers knew they were making the right choice in going with the industry leader in air delivery solutions, services and products.

#### The Installation

The heart of the Paxton Ionizing Bottle Rinser is an ionizing air knife, with its patent-pending design. The Ionizing Air Knife provides ionized air to eliminate the static charges in the bottles that cause dirt and dust to adhere to surfaces, and with air power rated at 600 cfm at 70" water column, the knife capably blasts the dirt and dust out of the bottle, leaving it clean and ready to fill, without any water usage. Paxton's Ionizing Bottle Rinser has undergone extensive QC testing with major beverage companies, and has been successfully qualified for removing all traditional test media, including styrodots, hairs, cardboard dust, debris, etc.

The lonizing Air Knife is powered by an ultra-high efficiency Paxton PX-1000 blower, utilizing a 10 hp motor. This implementation of a PX-1000 resulted in savings of 5 hp of energy usage, when compared to a traditional centrifugal blower generated the same air power, but requiring a 15 hp motor.



The blower is housed in a polypropylene washdown enclosure, to accomplish two objectives: first, to protect the blower from washdown chemicals and day-to-day dirt; and secondly, to provide sound abatement.

Along with installation components, three other key components completed the lonizing Bottle Rinser layout:

- 1. The blower is controlled by a Variable Frequency Drive, that enable CBA plant personnel to adjust the air flow for any line changes, including bottle size or line speed.
- 2. The blower outlet air is filtered through a Nano air filter, to ensure the air entering the bottles is free of contaminants.
- 3. The lonized Air is controlled by an lonizing Power Supply equipped with a relays for a high voltage alarm, which alarms if the ionizing power is lost; and a remote control, to turn the ionizing power on only when the bottling line is operational.

### The Outcome

Choosing to install a Paxton lonizing Bottle Rinser was a decision that paid off handsomely and quickly for the CBA management team. Water savings are estimated at over 600,000 gallons a year, saving \$4,000+ in water costs and over \$20,000 in sewer costs. In recognition of these water savings, CBA was awarded a water efficiency rebate by the local water bureau. The water rebate alone provided a ROI for the project of less than one year. Additionally, because the

lonizing Bottle Rinser employs a Paxton PX-series ultra-high efficiency blower, energy savings equivalent to 5 hp were realized.

Julia Person, CBA Sustainability Coordinator, tells her colleagues in the craft brewery industry that "Paxton has met our expectation both with offered product performance and customer service. The Paxton team was wonderful to work with throughout the project. Their responsiveness, attention to detail, and amazing customer service was key to making this project a success."

For more information on the lonized Air System,  $\underline{\text{click here}}$  or scan this QR code with your smart phone.





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