

TOO much H₂O? Not a problem!

Paxton's innovative products eliminate excessive moisture and labeling machine downtime

THE CLIENT

An American multinational corporation specializes in manufacturing, marketing, and distribution of grain-based snack foods, beverages and other products. The corporation is the global leader in convenience food and beverages. The multinational corporation creates joyful moments for their customers through their products and brand experience. Their manufacturing facility on the East Coast focuses on bottling.

THE CHALLENGE

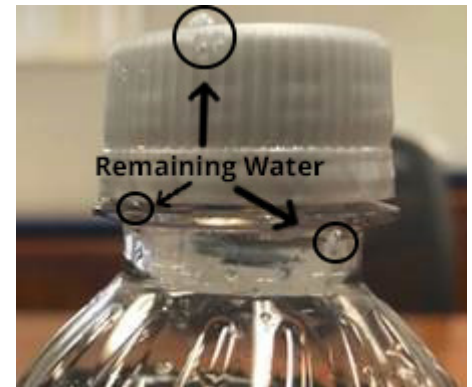
Until now, the bottling company has been using a 20-year old blower system for drying. Their previous system fails frequently due to bearing and belt issues. Additionally, they paired too many air knives to their previous blower causing inefficiencies in their drying process, specifically, moisture trapped under neck and on the side walls of the bottle. These issues created the following collateral damage:

- Bearing failure on the labeling machine resulting in approximately 1 hour of downtime every 4 weeks
- False readings from the photo eyes, due to water droplets on them, causing approximately 1.5 hours of downtime every 4 weeks
- Reduced speeds on the labeling machine for about 4.5 hours every 4 weeks
- And even though the bottling company could not quantify the amount of water being spun off in the labeler, it was enough to wet the labeler and bottling carousel causing increased mold growth on the labeler and corrosion on the bottle carousel.

In order to prevent the bottle plate bearing from failing prematurely, the bottling company increased PM greasing, and is running the line at a reduced speed to prevent and reduce the amount of water from flinging off bottle. In need of an immediately and reliable solution, the bottling company called Paxton for their expertise and help.

THE SOLUTION

With all the information provided, the Paxton team determined that the bottling company's labeling line problem could be solved using a combination of Paxton's air products. Paxton's Application Engineers proposed the use of a 24 nozzle CapDryer System in order to remove all of the water from the cap of the bottle. The CapDryer consists of a stainless-steel manifold, whose integrated 24 nozzles target the cap and



neck of the bottle from all directions. It utilizes 750 cfm of air at 60 inches of water column pressure, and is widely used in conjunction with vision systems, to reduce false rejects.

Then, in order to dry the sides of the bottle, two stainless steel air knives will be placed diagonally on both sides of the conveyor. Paxton's stainless-steel air knives are recommended for the food and beverage industry as they resist corrosion during the frequent washdown sanitation at the facility. To ensure maximum effectiveness of the side drying, the bottling company will reduce the width of the side rails on the conveyor.

Both the CapDryer System and the air knives will be powered by one PX-2000 blower, with a blower enclosure to reduce noise and protect the blower from any water spray or washdown chemicals. The PX-2000 blower generates 1350 cfm at 35 inches of water column, at an efficiency of 76%. Paxton's most advanced blower, the PX-2000 comes with a full three-year warranty.



Old Air Knife System

THE BENEFITS

By replacing an outdated drying solution with Paxton's CapDryer system, the bottle neck and lid are completely dried, preventing any water from landing on the labeler. Mold growth on the labeler is eliminated; and further corrosion of the bottle carousel is prevented. Additionally, by switching to a Paxton drying system, the bottling company saves at least 7 hours every 4 weeks of downtime from excessive water being sprayed onto the equipment.



CapDryer System

For more information on the innovative CapDryer, [click here](#) or scan this QR code with your smart phone.



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