

Case studies — Beverage processing plant

Problem

The company produced canned and bottled beverages in a high-speed line rated for thousands of units per minute. During the filling process, there was spillage on the line. Given the nature of the beverage and the ambient plant conditions (high temperature and humidity), the spillage led to rapid microbial growth on the filling lines.

The microbial growth necessitated/required the filling lines to be shut down every few days for an 8-hour sanitation shift to remove the biofilm buildup and sanitize the equipment. The cost of an 8-hour shutdown was estimated to be over \$75,000 in contribution margin.

Pyure impact

A Pyure controlled solution was installed on the shop floor near the filling lines, with its own blowers to direct the flow of natural cleaning agents over the line.

With the Pyure solution running, the company saw a reduction of over 90% in the biofilm buildup and the levels of microorganisms detected on the filling lines. The company subsequently reduced the quantity of harsh chemicals used, which reduced VOC levels within the plant.

The downtime required to clean the canning line decreased from 8 to 4 hours, while the frequency of line shutdowns was reduced from every 4 days to every 6 days.

Customer benefits

Adding the Pyure solution allowed the company to increase the 'uptime' of the canning and bottling lines while decreasing the costs associated with the chemicals used in its cleaning activities.

Reduced volatile organic compounds (VOCs) and microbial loads improved the occupational health and safety of employees working in the facility.

The reduction of harsh cleansing chemicals has extended the life of the filling line equipment.

Based on the contribution margin generated from increased uptime and cost savings associated with less intensive sanitation activities, the ROI was estimated at three months.

