



CASE STUDY

Belt Rinsing in the Food Industry

CHALLENGE

The overall challenge for the customer was product buildup on their receiving belts and elevated water usage from their current spray bar. The customer's vegetable processing facility had spray bars installed on each lane of conveyor belts. They encountered issues when they could only remove gross soil exactly where the water jet contacted the belt.

GOAL

The goal of this project was to improve cleaning while reducing water usage of conveyor belts bringing product into a vegetable processing facility through application function.

SOLUTION

Hydrite Chemical Co. partnered with an equipment supplier to develop a spray bar and tested the prototype in this vegetable processing plant. Hydrite was able to provide a successful solution to the customer's challenge. The developed spray bar uses injected air to increase impingement on the surface while also reducing the amount of water volume needed when using water alone. This spray bar utilizes the recommended impingement distance range of 4-8 inches. This trial was conducted with the spray bar mounted in a configuration that resulted in an impingement distance of 4-5 inches.

RESULTS

When using the new spray bar provided by Hydrite, the rinsing effectiveness of gross soils on the conveyor belts dramatically improved while also achieving reduced water usage. The current spray bar used 4 nozzles at 15 gallons per minute (GPM) each or 60GPM total. The new spray bar, developed and trialed by Hydrite, uses 4 nozzles at 2 GPM each, or 8 GPM total.



VALUE CREATED

- Improved Belt Cleanliness

- Reduced Water Usage by 87%

ABOUT HYDRITE

Hydrite Chemical Co., a family-owned company established in 1929, is one of the largest independent providers of chemicals and related services in the United States. Hydrite offers expertise in chemical distribution and manufacturing, food and dairy sanitation, organic processing, liquid sulfites, foam control, water treatment, and compliance management services.