

PRECISION SPRAY CONTROL SYSTEM ACCELERATES CORPORATE SUSTAINABILITY INITIATIVE AND SAVES MEAT PROCESSOR US\$394,000 ANNUALLY



PROBLEM:

FIND A MORE ACCURATE METHOD TO APPLY SHELF-LIFE EXTENDER

A major beef processor needed a better way to apply a proprietary shelf life extender to sliced products in a tray pack prior to film wrapping. In-house engineering staff had developed a spray system equipped with photo-optic sensors to determine the presence of a tray pack. A pneumatic solenoid was used to turn the spray nozzles on to apply the ingredient.

Timing adjustments had to be made by maintenance staff rather than line operators and resulted in unproductive downtime. Inaccurate sensors and slow solenoid activation of nozzles caused inconsistent application of the shelf-life extender and significant overspray, which negatively affected tray pack handling. Nozzles also plugged frequently, causing another maintenance headache. Finally, the rinsing system added to wash excess coating from conveyors operated 24/7 and hindered an important corporate sustainability initiative.

SOLUTION:

We recommended an AutoJet® Spray System equipped with a Model 1550+ spray controller and a PalsaJet® electrically-actuated spray nozzle triggered by a laser sensor. Using a nozzle with a larger orifice has solved the plugging problems. Capable of cycling up to 10,000 times per minute, the PalsaJet nozzle's exceptionally fast operation and positive shut-off has nearly eliminated overspray, reduced ingredient consumption and enabled the plant to completely turn off the rinsing system.

**70% REDUCTION
IN INGREDIENT
USE & IMPROVED
SUSTAINABILITY
WITH AUTOJET
PRECISION
SPRAY CONTROL
SYSTEMS**



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RESULTS:

The AutoJet® Spray System has been installed on two production lines with outstanding results. Coating weights for the tray packs consistently meet specifications and consumption of the shelf-life extender has been reduced by more than 70%. Reducing ingredient use has also reduced the plant's carbon footprint by decreasing fuel consumed for transporting the ingredient totes. In total, the AutoJet Spray Systems have enabled the processor to save

more than US\$394,000 annually, generating a payback period of less than a month.

Perhaps best of all, the new systems have enabled the meat processor to advance its corporate sustainability initiative by saving over 1 million gallons of water annually – enough to fill two Olympic-sized swimming pools.



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Experts in Spray Technology

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