

Plastic Bottle Manufacturer Saves US\$92,000 a Year with Automated Spray System

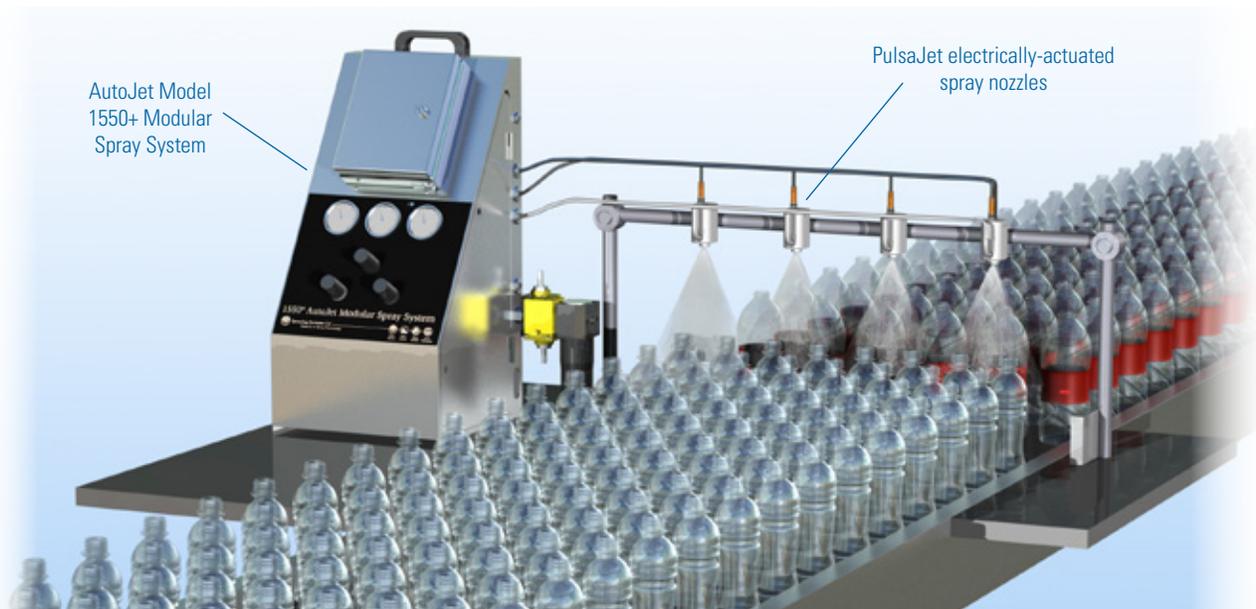


Problem:

A plastic bottle manufacturer was using air atomizing systems to spray a costly lubricant to prevent newly formed bottles from sticking together. The systems operated continuously, spraying lubricant when bottles were not present. The lubricant application wasn't consistent with some bottles being coated with too much lubricant and others not enough. Another problem was the excessive misting produced by the air atomizing spray nozzles. The work environment was messy and hazardous and maintenance time was substantial.

Solution:

The bottle manufacturer now uses AutoJet® automated spray systems to apply the lubricant. Each system is equipped with PulsaJet® electrically-actuated air atomizing nozzles and is controlled by an AutoJet Model 1550+ Modular Spray System. Using Precision Spray Control (PSC), the proper volume of lubricant is now applied consistently with minimal waste. The spray controller makes automatic adjustments to flow rate based on line speed without adjusting spray pressure to ensure drop size, spray angle and coverage remain consistent. In addition, sensors relay bottle height and presence to the controller. The controller then triggers the nozzles to spray. The reductions in overspray and misting eliminate any production restricting coverage, safety and maintenance issues.





Plastic Bottle Manufacturer Saves US\$92,000 a Year with Automated Spray System – Continued

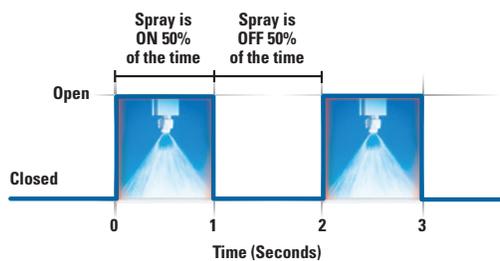
Results:

The AutoJet® automated spray systems with Precision Spray Control (PSC) ensure the proper volume of lubricant is consistently applied to the bottles with minimal waste and misting as they move through the spray stations. As a result, lubricant consumption has been reduced by 70%, production has increased by approximately 20% and maintenance workers have been deployed to other tasks. The combined savings are over US\$92,000 a year with a payback period of eight months.

A CLOSER LOOK AT THE SYSTEM



Pulsajet® electrically-actuated spray nozzles provide high-transfer efficiency to minimize waste and messy overspray. Cycle speeds up to 25,000 cycles per minute are possible to keep pace with fast line speeds. Pulsajet nozzles can be used with a variety of spray tips to ensure the performance matches the application requirements.



AutoJet Model 1550+ Modular Spray System

provides complete automated spray control of nozzles to ensure precise and accurate placement of bottle lubricant with minimal waste. The system ensures proper flow and drop size and reduces overspray.



Precision Spray Control (PSC) involves turning nozzles on and off very quickly to control flow rate. This cycling is so fast that the flow often appears to be constant. With traditional nozzles, flow rate adjustments require a change in liquid pressure, which also changes the nozzle's spray angle, coverage and drop size. With PSC, pressure remains constant enabling flow rate changes without changes in spray performance. PSC requires the use of electrically-actuated spray nozzles and an AutoJet spray controller.

For more information about Precision Spray Control, visit spray.com/psc



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