Automated Spray System Helps Food Producer Lower Customer Returns and Reduce Annual Energy Costs by $20,000

Problem:
A manufacturer of frozen pizzas needed the toppings on pies to stay in place until consumers baked and consumed them. Pre-baking the pizzas so the toppings would adhere to the slightly melted cheese during flash freezing didn’t prove effective. Toppings became dislodged during shipping. Product appearance was negatively affected and customer returns were high. In addition, the pre-baking process required costly-to-operate infrared heaters and created worker safety concerns.

Solution:
The Spraying Systems Co. solution uses air atomizing nozzles controlled by an AutoJet® Modular Spray System to mist the pizzas immediately before freezing. Once frozen, the toppings adhere securely to the pizza – even during shipping – without impacting taste or appearance.

Operation of the system is simple and straightforward. The AutoJet Model 2050 Spray Controller regulates the liquid pressure and the atomizing air pressure to maintain a consistent mist of water on the pizzas. Sprays from four 1/4JAUCO automatic air atomizing nozzles provide coverage of about 40” (1 m) – the width of two or three pizzas side-by-side on the conveyor. Adjusting the volume of water needed based on pizza size is fast and easy – a single setting change on the spray controller.
Automated Spray System Helps Food Producer Lower Customer Returns and Reduce Annual Energy Costs by $20,000 – Continued

Results:
The AutoJet® Modular Spray System installed by this processor improved operations so significantly that they purchased a second system for another production line. Pizza toppings now stay firmly in place until baked at home and customer returns have decreased by 5%. The use of infrared heaters has been eliminated resulting in savings in excess of US$10,000 annually per line on energy and improved worker safety.

A CLOSER LOOK AT THE SYSTEM

AutoJet Model 2050 Spray Controller regulates the liquid pressure and the atomizing air pressure to maintain a consistent mist of water on the pizzas.

Four 1/4JAU CO automatic air atomizing nozzles are used to cover the entire width of the conveyor.