Annual Savings of US$32,000+ for Pizza Crust Manufacturer by Reducing Oil Waste with Automated Spray System

Problem:
Tomanetti Food Products, a manufacturer of par-baked pizza crusts for more than 50 years, needed to apply oil to dough balls prior to being formed into crusts and baked. The oil prevents the dough from sticking to the press and adds flavor and color to the crust.

The existing system dripped oil from a trough onto the dough balls – a very messy and wasteful process. Tomanetti’s wanted to eliminate the mess and reduce the volume of oil used without affecting product quality.

Solution:
Spraying Systems Co.’s AutoJet® Model 1550 Modular Spray System with two AA250AUH hydraulic automatic spray nozzles solved both problems. The system uses Precision Spray Control (PSC) to spray a fine coating of oil onto the dough balls as they pass under the spray manifold. The oil is applied uniformly without messy misting or overspray.
Annual Savings of US$32,000+ for Pizza Crust Manufacturer by Reducing Oil Waste with Automated Spray System – Continued

Results:
The AutoJet® Model 1550 Modular Spray System enabled Tomanetti’s to maintain their high quality standards while reducing oil use by more than 40%. At a cost of US$8.50 per gallon of oil, the savings total more than US$32,000 per year. The cost of the new system was recouped in less than two months. In addition, the precision application of oil reduced maintenance time caused by excess oil.

A CLOSER LOOK AT THE SYSTEM

Two AA250AUH hydraulic automatic nozzles apply oil to dough balls as they pass under the spray manifold.

Precision Spray Control (PSC) involves switching spray nozzles on and off very quickly to control flow rate. This cycling takes place so quickly that the flow often appears to be constant. By adjusting duty cycle and cycling frequency instead of changing pressure to increase flow rate, spray angle and drop size remain consistent. PSC requires the use of electrically-actuated nozzles and an AutoJet spray controller.

The Benefits of Precision Spray Control
• Achieve a wide range of flow rates from a single nozzle at a constant pressure
• Flow rate can be changed almost instantaneously
• Reduced clogging. PSC can maintain very low flows with larger spray orifices