

# BAKERY ELIMINATES MIST AND REDUCES RELEASE AGENT USE WITH AUTOJET® SPRAY SYSTEM



## PROBLEM:

A commercial bakery in Saudi Arabia was using air atomizing nozzles to apply release agent to pans. The bakery was not able to precisely control the flow rate of the nozzles. More release agent was being applied than necessary and the excess oil was burning off in the ovens creating a smoke problem. In addition, the air atomizing nozzles produced a lot of mist. Removing the oil mist from the equipment was time-intensive. The bakery turned to Spraying Systems Co. for help.

## SOLUTION:

An AutoJet spray system solved the bakery's problems. The system consists of an AutoJet 2008+ spray controller and PulsaJet® electrically-actuated nozzles to achieve Precision Spray Control (PSC). PSC cycles the nozzles on and off very quickly to control the application rate of the release agent. Adjustments are made automatically based on operating conditions, such as line speed and ensure the proper volume of release agent is dispensed. Since pressure does not change, the spray coverage is consistent and pans are coated uniformly. The PulsaJet nozzles achieve the low flow rates and small drop size required without the use of compressed air so misting is no longer a problem. The system uses PSC to control the flow rate by cycling the nozzles on and off very quickly and ensure the proper volume of release agent is applied. Adjustments to flow rate are automatic and determined by changes in operating conditions such as line speed. In addition to applying the proper volume of release agent, the PulsaJet spray nozzles apply the release agent directly in the pans without misting.



# BAKERY ELIMINATES MIST AND REDUCES RELEASE AGENT USE WITH AUTOJET® SPRAY SYSTEM – Continued

## RESULTS:

The bakery is experiencing good results with the AutoJet system. Compressed air use, misting and the associated maintenance time have been eliminated. The pans are being coated uniformly and consistently with the proper volume of release agent and oven

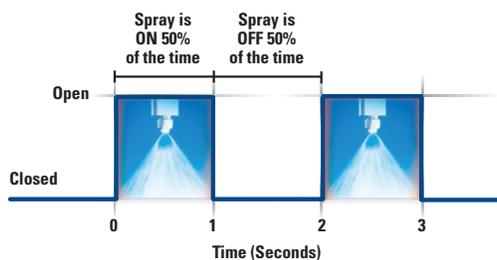
smoke is no longer an issue. Release agent and energy use have both decreased by 18% and 73% respectively. The bakery recouped the cost of the system in just 15 months.

## A CLOSER LOOK AT THE SYSTEM

**Eight PulsaJet® hydraulic electrically-actuated spray nozzles** eliminate the need for costly compressed air and provide precision application of the release agent on bakery pans.



**AutoJet spray controllers** provide precise control of flow rate and spray timing, eliminating overspray and wasted release oil.



**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](http://spray.com/psc)**



**Spraying Systems Co.®**  
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