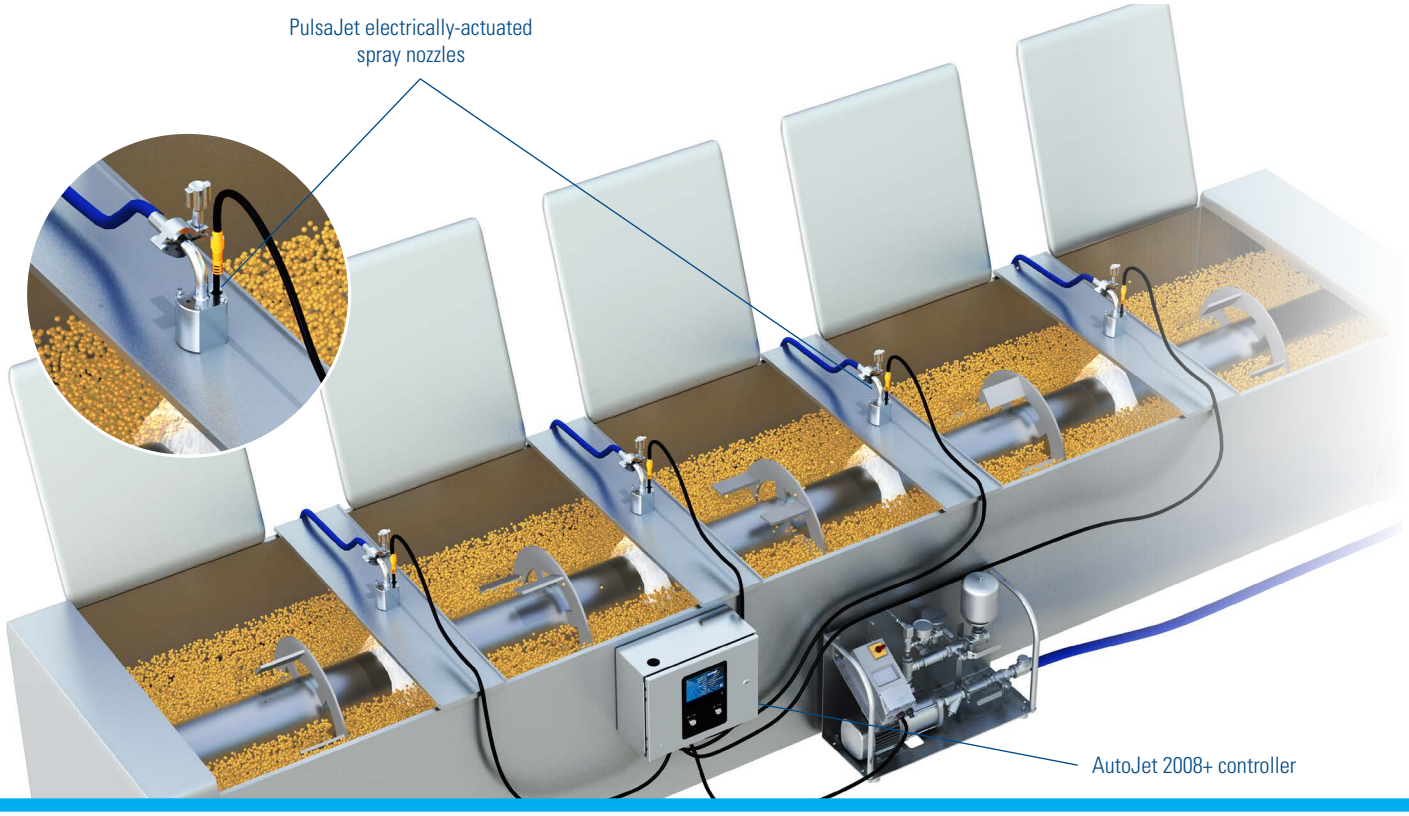
BAKERY REDUCES OIL USE BY 58% AND IMPROVES WORKER SAFETY WITH AUTOJET® SPRAY SYSTEM

PROBLEM:

A leading bakery, coating caramel popcorn with soybean oil to prevent sticking once packaged, needed a more efficient application method. The bakery was using air atomizing nozzles to apply the oil. The oil was being over-applied and the nozzles produced a significant amount of mist. Oil ended up on the equipment and floor, creating maintenance problems and safety hazards.

SOLUTION:

An AutoJet spray system now applies the soybean oil precisely on the caramel popcorn. The system consists of an AutoJet 2008+ controller and four PulsaJet® hydraulic spray nozzles. The nozzles provide the low flow rates and small drops required for the oil application without the use of compressed air, eliminating the associated misting. The use of Precision Spray Control (PSC), achieved by using an AutoJet spray controller and electrically-actuated PulsaJet nozzles, provides automatic adjustment of the flow rate based on operating conditions. Messy, wasteful overspray has been eliminated.



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– Continued

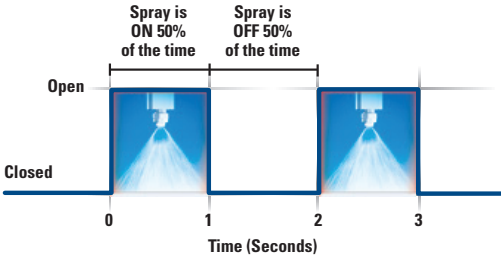
RESULTS:

The AutoJet spray system has reduced misting by 90% and eliminated the associated safety issues caused by slippery floors. The elimination of compressed air has resulted in savings of US$3,500 annually. Other benefits for the bakery include a reduction in maintenance time providing an annual savings of US$12,000 and a 58% decrease in soybean oil use yielding an additional US$24,000 savings per year. The bakery recouped its investment in the new AutoJet spray system in less than six months.

A CLOSER LOOK AT THE SYSTEM

Four PulsaJet electrically-actuated spray nozzles achieve very low flow rates, replaced air atomizing nozzles and eliminate the use of compressed air.

An AutoJet spray controller provides precise control of flow rate and accurate placement of the soybean oil on the popcorn.



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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