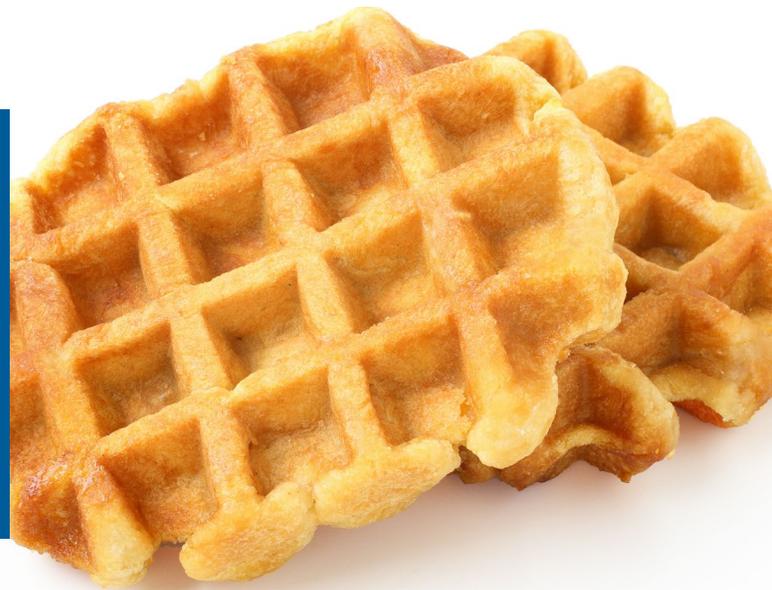


# BAKERY SOLVES SAFETY ISSUES, ELIMINATES COMPRESSED AIR AND REDUCES OIL USE BY 50%



## PROBLEM:

FIND A SAFER, MORE EFFICIENT WAY TO APPLY SOYBEAN OIL ON WAFFLE IRONS

A commercial bakery using air atomizing nozzles to apply oil to prevent waffles sticking to equipment was facing a plethora of problems. The core issues were overspray and misting. Oil was everywhere throughout the bakery – equipment, floors, walls and ceiling – creating major worker safety issues. Despite the use of exhaust fans directing the oil mist to the roof, air quality was poor. In addition, oil pooled on the floor causing slip hazards.

Other problems included high product scrap, OSHA fines, potential food safety issues and concerns about the longevity of the roof with continued exposure to oil mist. Change was needed quickly. The bakery contacted us for help.

After the initial consultation, our first step was to spray the soybean oil in our facility without using mist-prone air atomizing nozzles. We used our AccuCoat® spray system to slightly increase the temperature of the oil to reduce viscosity and applied it using hydraulic Pulsajet® spray nozzles. Our tests were successful, and the bakery quickly validated our findings.

## SOLUTION:

An AccuCoat® heated spray system is now in use on two production lines. The system heats the oil to target temperature. The oil then travels through jacketed hosing to 63600 sanitary heated spray headers. The oil temperature remains consistent from the tank to the nozzle tip.

Using Precision Spray Control (PSC), nozzles are cycled on and off very quickly to control the application rate. Adjustments are made automatically based on operating conditions such as line speed. Spray performance remains consistent and the optimal volume of oil is applied precisely on the irons.



# BAKERY SOLVES SAFETY ISSUES, ELIMINATES COMPRESSED AIR AND REDUCES OIL USE BY 50% – *Continued*

## RESULTS:

The use of the AccuCoat® heated system has transformed the bakery. The elimination of excessive misting and overspray has resulted in:

- Greatly improved worker safety: OSHA tests validate a 90% reduction in airborne pollutants and slippery floors have been eliminated
- Dramatic reductions in chemical and energy use: soybean oil use has decreased by 50% – a savings of US\$1.3 million per year. Energy use of 8,000 scfm has been eliminated
- Reduced waste: reject rates have decreased substantially and the bakery is no longer facing a US\$74,000 roof replacement, or an upgrade to the exhaust system estimated at US\$1 million. OSHA and environmental fines have also been eliminated

Other benefits include increased production time, extended time between maintenance intervals and happier, healthier, safer workers.



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