

Automated Spray System Helps Snack Maker Improve Product Quality and Reduce Monthly Operating Expenses by US\$3,000



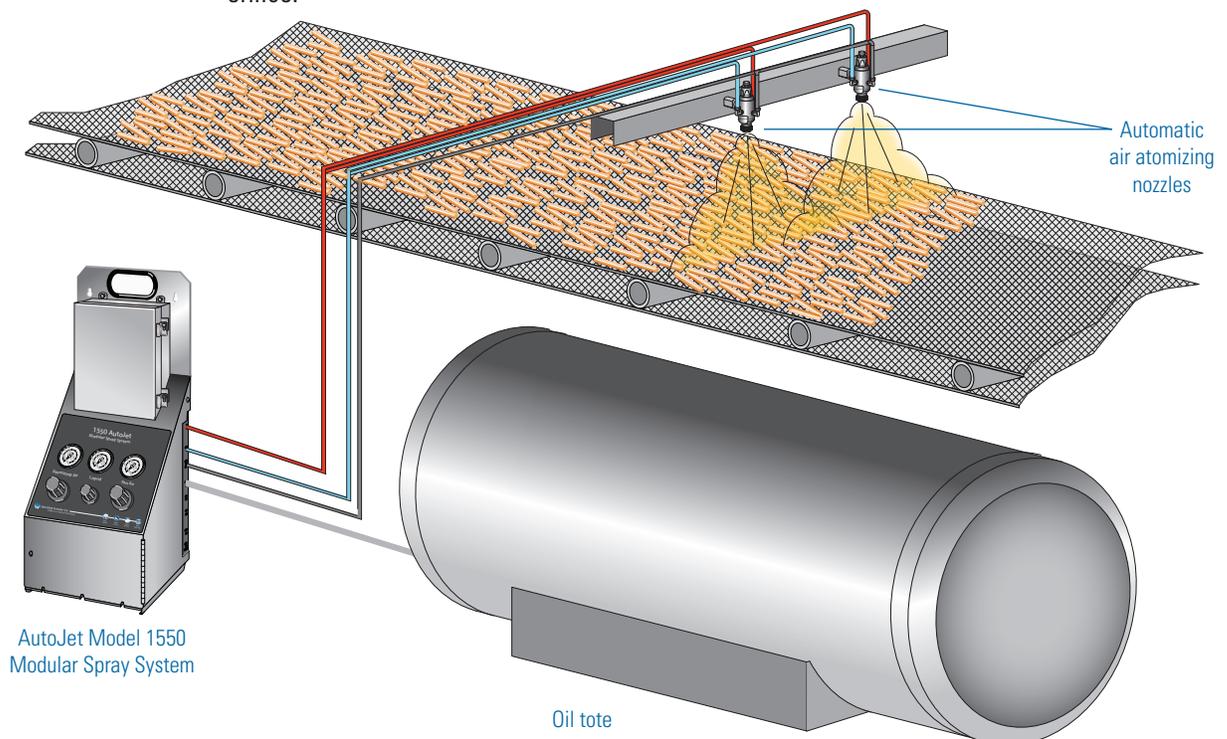
Problem:

A manufacturer of gourmet baked snacks needed to apply a light, even coating of sunflower oil to potato crisps before the snacks were baked. Uniform oil coating is essential to maintain product appearance and taste.

The manufacturer was using a spray system of its own design which injected air into the liquid line before the oil was atomized using a hydraulic nozzle. The system, which required daily maintenance, produced an erratic spray which wasted oil and resulted in poor product quality.

Solution:

Spraying Systems Co.'s solution uses air atomizing nozzles controlled by an AutoJet® Modular Spray System. The easy-to-use AutoJet Model 1550 Modular Spray System is equipped with an air-operated double diaphragm pump. The pump efficiently moves the viscous oil from a supply tote to two 1/4JAUCO automatic air atomizing nozzles. Flow rate is easily adjusted and the external mix air atomizing nozzles provide uniform coverage of the crisps on the conveyor below. The nozzles are equipped with clean-out needles to prevent plugging of the nozzle orifice.



Spraying Systems Co.®
Experts in Spray Technology



Spray
Nozzles



Spray
Control



Spray
Analysis



Spray
Fabrication



Automated Spray System Helps Snack Maker Improve Product Quality and Reduce Monthly Operating Expenses by US\$3,000 – Continued

Results:

The AutoJet® Modular Spray System has improved both the quality and quantity of the potato crisps produced. Spray coverage is consistent and uniform resulting in improved product appearance and lower reject rates. In addition, less oil is used in the coating process. Maintenance downtime is reduced significantly – almost two hours of labor per day spent maintaining the previous spray system has been eliminated. The reduced oil use, increased product yield and decreased maintenance time have combined to generate a savings of more than US\$3,000 per month. The cost of the system was offset in less than three months.

A CLOSER LOOK AT THE SYSTEM

Two 1/4JAUCO automatic air atomizing nozzles are used to cover the entire width of the conveyor. The air-actuated nozzles cycle up to 180 times per minute and feature a clean-out needle to prevent nozzle plugging.



AutoJet Model 1550 Modular Spray System regulates the liquid pressure and the atomizing air pressure to maintain a consistent coating of sunflower oil on the snacks.



UNIQUELY QUALIFIED TO GENERATE RESULTS

Unmatched Global Engineering, Manufacturing and Technical Support
Nozzles | Control Systems | Headers & Injectors | Research & Testing



Spraying Systems Co.®
Experts in Spray Technology

North Avenue and Schmale Road, P.O. Box 7900, Wheaton, IL 60187-7901 USA

Tel: 1.800.95.SPRAY Intl. Tel: 1.630.665.5000
Fax: 1.888.95.SPRAY Intl. Fax: 1.630.260.0842
www.spray.com



Case Study No. 137 Printed in the U.S.A. ©Spraying Systems Co. 2011