



## ACCUCOAT® SPRAY SYSTEMS

FOR PRECISE, UNIFORM APPLICATION  
OF OIL, BUTTER, SYRUP AND OTHER  
VISCIOUS COATINGS



*Spraying Systems Co.*®  
Experts in Spray Technology



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# OPTIMIZE COATING APPLICATIONS TO BOOST PRODUCTIVITY & REDUCE WASTE

Optimizing your coating performance can have a significant impact on production and the bottom line. Increasing productivity, reducing waste of costly coatings and chemicals and minimizing manual labor are just a few of the benefits processors can experience by optimizing spray performance.

## WE ARE UNIQUELY QUALIFIED TO HELP YOU IMPROVE QUALITY & LOWER OPERATING COSTS:

- For more than seven decades we've been working with food processors to ensure even the most challenging viscous coatings can be applied to a wide range of food products, pans, conveyors and more. Using advanced spray technology and temperature-control, our systems apply just the right amount of coating directly on the target with minimal waste. Our systems are ideal for use with nearly every coating ranging from light oil to marshmallow to sugar slurries
- If you think your coating can't be sprayed, send us a sample. We'll head into our spray laboratories to identify and validate the best spray system for your operation. We've found that 95% of all coatings can be applied using spray technology
- Struggling with QC problems? Overspray and waste? Excessive maintenance time? Request an on-site evaluation by your local spray expert. The evaluation is complimentary and you'll learn about new ways to improve process efficiency
- Our global technical sales and manufacturing facilities ensure you can implement the same solution in all of your plants to guarantee product quality and standardized production. We're where you need us and ready to deliver
- Systems are designed specifically for food processing – food-compliant materials, easy to install and maintain components and more



# ACCUCOAT® SPRAY SYSTEMS FOR UNIFORM COATING

If you're applying coatings manually or are experiencing quality and waste problems caused by over- and under-application, it's time to consider an AccuCoat system. These automated systems ensure even the most challenging coatings are applied uniformly, on the target and without waste. The benefits AccuCoat systems can bring to your operation are many: reduced scrap rate, dramatic reductions in coating use, decreased maintenance time and increased throughput.

The best AccuCoat system for your operation will depend on the viscosity of the coating being applied and flow rates required. Your local spray expert will help guide you to the optimal solution and arrange for proof-of-concept testing where appropriate.

Precise temperature control is essential to the successful application of viscous coatings. That's why our AccuCoat systems are equipped to automatically adjust and maintain the temperature of the coating to ensure consistent, uniform coverage. Most AccuCoat systems use heat to ensure even application but systems that provide chilling are also available.

For operations where conveyor line speed can vary, AccuCoat systems with Precision Spray Control (PSC) are recommended. Flow rates can be adjusted almost instantaneously based on line speed to maintain consistent coating weights.



## CHALLENGING COATINGS WE'VE CONQUERED

We have a proven track record of using spray technology to apply just about every coating, ingredient, slurry, flavoring and topping. Here's just a partial list:

- Butter
- Caramel
- Cinnamon
- Eggs/egg wash
- Emulsions
- Enzymes
- Fat
- Food-grade dyes
- Gels
- Glazes/syrup
- Lecithin
- Lubricants/ release agents
- Milk
- Mold inhibitors
- Oils
- Peanut butter
- Shortening
- Slurries – starch, sugar, yeast
- Water

## HOW PRECISION SPRAY CONTROL WORKS

Electrically-actuated spray nozzles are turned 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 pressure. Changing pressure 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.

Nozzles spraying 90% of the time



Nozzles spraying 50% of the time



Nozzles spraying 25% of the time



# ACCUCOAT® BENCHTOP HEATED SPRAY SYSTEMS

AccuCoat Benchtop Heated Spray Systems are perfect for R&D labs and pilot plants prior to commercial implementation. This compact unit requires a small footprint and offers exceptional versatility. The AccuCoat Benchtop System features heated liquid delivery and an AutoJet® spray controller to provide precise spray timing and closed-loop temperature and flow control.

## BENEFITS

- Cost-effective method for testing and validation
- Fully-jacketed system prevents hot spots and provides even heating up to and through nozzle orifice
- Dedicated safety controls prevent overheating
- Can be used with a variety of heat-jacketed air atomizing or hydraulic spray nozzles
- Easy set-up



## IDEAL FOR:

- Applying all types viscous coatings
- Proof of concept testing prior to commercialization



# ACCUCOAT® IN-LINE HEATED SYSTEMS FOR LIGHT OILS & LIGHT SYRUP

The AccuCoat In-line Heated Spray System consists of an AutoJet® spray controller, electrically-actuated PulsaJet® nozzles and an in-line heater. Just prior to spraying, the heater provides heat on demand to warm light oils and other viscous fluids up to 130°F (54°C) spraying to improve coating uniformity and minimize the risk of clogging. The AutoJet spray controller ensures coatings are applied consistently even when operating conditions like line speed change.



## BENEFITS

- Eliminates product loss caused by uneven coating
- In-line design means heating is done on demand for optimal response and energy efficiency
- Easy to install, easy to operate and easy to clean
- Easy integration to current operations – choose direct feed or recirculating configurations
- Food-compliant materials ensure food safety
- Durable – all wetted parts are constructed of 316 stainless steel and Viton®
- Optional 63600 spray manifold helps ensure proper fluid flow to nozzles and simplifies maintenance

## IDEAL FOR:

- Vegetable oil, lubricants and other light coatings that do not solidify
- Applying release agents to pans and belts
- Applying coatings to baked goods
- Applying additives to pet food



# ACCUCOAT® FULLY-JACKETED HEATED SYSTEMS FOR BUTTER, CHOCOLATE AND HEAVY SYRUP

Fully-jacketed AccuCoat Heated Spray Systems maintain precise temperature control from the liquid supply tank to the target and are well-suited to use with high-viscosity coatings. Systems are available with a choice of AutoJet® spray controllers and hydraulic or air atomizing nozzles. The AutoJet Model 1550+ Modular Spray System provides Precision Spray Control (PSC) when used with PulsaJet® electrically-actuated nozzles. For real-time monitoring and closed-loop control, the AutoJet 2008+ spray controller is recommended. Optional features include auto tank refill and tank agitation.



## BENEFITS

- Closed-loop temperature control eliminates problems caused by over- or under-heated solutions
- Eliminates problems caused by changes in viscosity due to seasonal temperature variations
- Reduces waste of costly coatings by eliminating overspray
- Improves food safety by eliminating worker contact with product
- Minimizes downtime by allowing multiple recipes to be pre-stored to facilitate batch changes



**PASTRY MANUFACTURER  
IMPROVES PRODUCT QUALITY  
AND SAVES \$90,000**

A baked goods manufacturer uses an AccuCoat system to apply the precise volume of butter to sheets of dough.

### THE RESULTS INCLUDE:

- A constant application rate of butter coating
- Reduction in butter use by 15%
- Improved cleanliness and safety by eliminating misting associated with previous system
- **Annual savings of \$90,000**

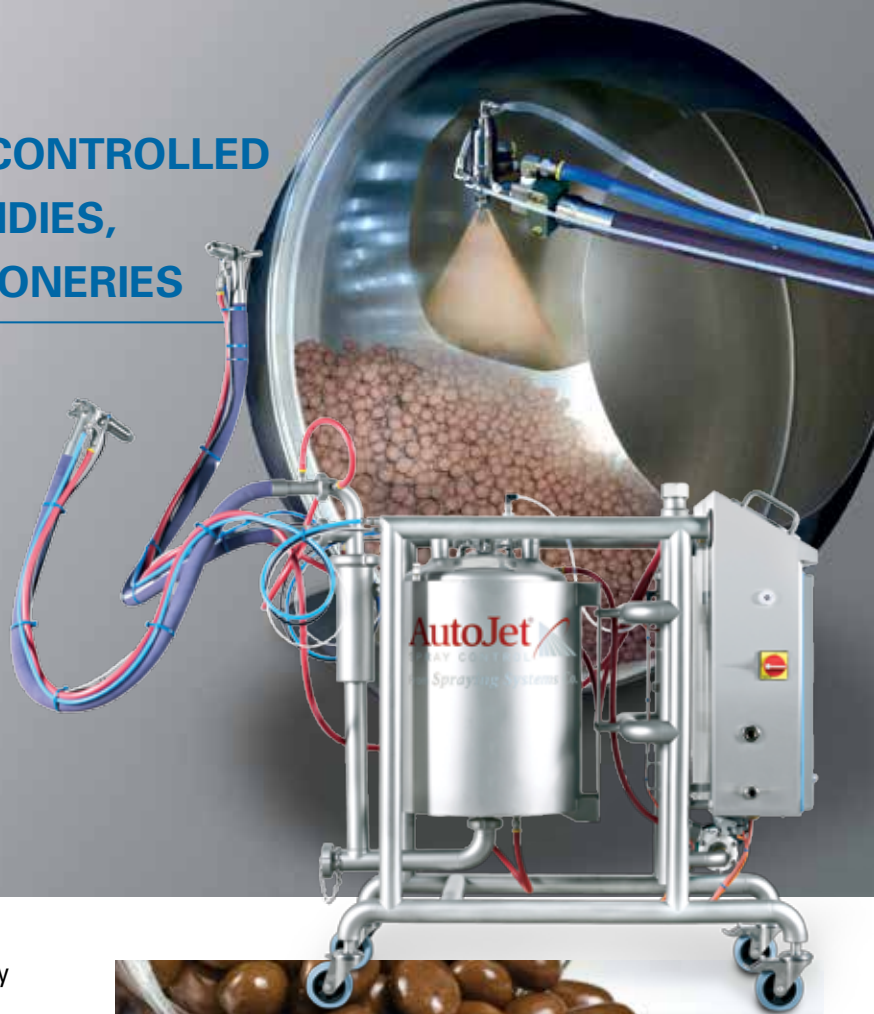
## IDEAL FOR:

- Chocolate
- Oil
- Butter
- Glaze
- Egg wash



# ACCUCOAT® TEMPERATURE-CONTROLLED PANNING SYSTEMS FOR CANDIES, NUTS AND OTHER CONFECTIONERIES

AccuCoat Panning Systems provide flexible performance and control for candy and confectionery panning operations. The standalone AccuCoat Panning System provides a mobile solution ideal for smaller batches and R&D labs. The system features closed-loop temperature control and automated control of spray timing and flow rate. Systems components include an AutoJet® spray controller, double-jacketed pressure tank and a flexible jacketed hose for easy positioning of the integrated spray head inside the drum. Two spray nozzles for two pans can be accommodated.



For panning operations already using central fluid delivery and a hot water supply, the AccuCoat Central Panning System draws from the centralized fluids. The system ensures the proper coating weight is accurately and uniformly applied on the target – even if changes to the spray time are required. Weight additions are tracked during spray coating and are fully programmable for operating flexibility. The system includes a control panel with touch screen HMI, fully-jacketed liquid line and spray nozzle.

## BENEFITS

- 50% reduction in coating waste typical
- Batch times are cut in half compared to manual ladling systems
- Fully-jacketed system maintains optimal coating temperature and uniformity
- Decreases adhesion for light products such as coffee beans to eliminate QC problems



**AUTOMATED SPRAY SYSTEM SOLVES CLOGGING PROBLEM AND INCREASES PRODUCTION**

The Shanghai branch of Lotte Food uses an AccuCoat Pan Spraying System to coat almonds, hazelnuts and raisins with chocolate.

### THE RESULTS INCLUDE:

- Precise temperature control has eliminated nozzle clogging
- Pre-stored recipes allow quick batch changeover
- **A 78% increase in production of chocolate coated products**

## IDEAL FOR:

- Chocolate covered centers
- Jelly beans
- Hard candies
- Cereals



Viton® is a registered trademark of DuPont Performance Elastomers, LLC



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