



Modular Spray Systems optimize spray nozzle performance

AutoJet® Modular Spray Systems can easily be integrated with your current plant control platforms, so you'll be up and running quickly. Using SprayPro Express® software, your sales engineer can configure your system in 3 steps:

1. Select the right spray nozzle.

Based on decades of applications experience, we'll help you select the best spray nozzle for the job.

2. Choose the right level of control for your production line.

From basic on/off control to fully-automated, closed-loop spray control, Modular Spray Systems equipped with AutoJet Spray Controllers feature powerful onboard software, eliminating the need for programming by your staff.

BASIC CONTROL

Manual Valve Packages

Manually monitor and regulate key spray control inputs. System components are enclosed in a single panel for easy wall mounting.



INTERMEDIATE CONTROL

Model 2050 Spray Controllers

Pre-set spray variables are electronically monitored in real time. Onboard timing control software maximizes automatic spray nozzles performance.



ADVANCED CONTROL

Model 2250 Spray Controller

Pre-programmed spray controller monitors and automatically adjusts spray performance based on process variables such as conveyor speed, temperature and batch control.



3. Select a configuration.

For easy installation, AutoJet Modular Spray Systems are available as panel-mount units, mobile SprayCarts or fully-enclosed SprayDesk systems for maximum protection in rugged environments. Stainless steel pressure tanks and pump delivery systems are both available.

For more information on Modular Spray Systems, visit www.autojet.com/mss

Topical coating of tissue and paper



Problem:

A manufacturer of tissue, paper towel and hygienic paper products needed to apply a perfume to their products without wetting the paper. Previous spray systems were unable to properly adjust the flow rate for varying line speeds and stained the product with excessive perfume.

The AutoJet® Technologies Solution:

An AutoJet Modular Spray System equipped with a dedicated spray controller triggers automatic spray nozzles and automatically adjusts the flow rate based on line speed. The uniform perfume coverage improved product quality, reduced scrap and decreased maintenance downtime.

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Modular Spray Systems

The most comprehensive spray technology catalog available



Our just released *Industrial Spray Products Catalog 70* is filled with information to help you optimize performance in your spray operations. It includes information on:

- Spray nozzles and accessories
- Automated spray controllers and turnkey systems
- Fabricated spray products – lances, headers, showers and more
- Spray research and testing services
- Technical reference
- Spray optimization
- Much, much more!

Be sure to request your copy today!

In U.S. 1.800.95.SPRAY
Outside U.S. 1.630.665.5000

PulsaJet® Automatic Spray Nozzles

The PulsaJet family of automatic spray nozzles provides accurate spray placement and excellent spray pattern integrity to improve your operations.

Improved worker safety

Reduce or eliminate mist and overspray. Improve your work environment.

Less nozzle clogging

Reduce maintenance time by using larger, clog-resistant spray tips even for low-flow applications. Maintain precise flow control with Pulse Width Modulation.

Eliminate waste of costly fluids

Accurate spray placement and exceptional spray pattern integrity ensures the sprayed solution is delivered to the target with minimal waste.

Minimized spray tip change-out

High turndown ratio allows a wide range of flow rates from spray tips. Downtime for tip changeout and overall nozzle expense can be reduced.

Increased productivity

High speed cycling means faster line speeds and a boost in throughput.

Faster routine maintenance

Wear parts are easily accessible to minimize maintenance time.

Improved and automated quality control

Add SprayCheck™ sensors for real-time spray verification. If spraying doesn't occur, costly quality problems can be quickly avoided.

Flexible – use hydraulic or air atomizing spray tips

Choose the right atomization method for your application with the same high speed cycling. PulsaJet spray nozzles can be used with hydraulic spray tips to reduce misting in many applications that previously used air atomizing spray tips.

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Spraying Systems Co.®
Experts in Spray Technology

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Spray Nozzles



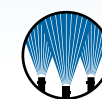
Spray Control



Spray Analysis



Spray Fabrication



Spraying Systems Co.®
Experts in Spray Technology



Spray Nozzles



Spray Control



Spray Analysis



Spray Fabrication

PulsaJet nozzles continued

PulsaJet® automatic spray nozzles are available in a wide range of design options including:

- **Speeds up to 10,000 cycles per minute**
- **Hydraulic or air atomizing spray tips, including selected quick-connect tips**
- **Flow rates up to 15.8 gpm (59.8 l/min)**
- **Fluid pressures up to 350 psi (24 bar)**
- **Intrinsically-safe versions for explosive environments**

The performance advantages provided by PulsaJet automatic spray nozzles have quickly made them the preferred solution for precision spray applications.

To fully optimize the performance of PulsaJet nozzles, AutoJet® Spray Controllers provide Pulse Width Modulated (PWM) flow control and other advanced control methods.

Typical Applications

Coating & Moistening

- Adding fragrances to paper products
- Moistening particle board to suppress sawdust and reduce scrap rate
- Applying antimicrobial agents on meat and poultry products
- Coating bottles to minimize scuffing on bottling lines and in transit
- Adding flavorings and preservatives to food products

Lubricating, Sealing & Marking

- Lubricating steel strip prior to forming
- Applying die lube and mold release for metal and plastic parts
- Spraying release agent on screens and drums in wood building panel manufacturing
- Applying adhesive to packaging materials to prevent slippage on pallets
- Nail line marking on roof shingles and other building materials

For more information on PulsaJet Spray Nozzles, visit www.spray.com/pulsaJet



SprayCheck™ Sensor

Ways to optimize spray performance through research and testing



How can you tell if the efficiency of your spray operations can be improved?

Sometimes the signs are obvious – product quality problems, high operating costs or excessive downtime. More often, the signs are subtle and require careful analysis to detect. That's where our Spray Analysis and Research Services group can help.

This group has decades of experience in spray nozzle testing, research and design. Working in the world's most sophisticated spray labs, our engineers can duplicate your operating conditions and conduct a wide variety of spray characterization tests to identify areas for improvement. Spray performance can often be improved by using a different nozzle, installing a custom spray header, changing operating conditions slightly or adding spray controls to tightly regulate nozzle performance.

Chemical, food, paper and pharmaceutical manufacturers with coating, spray drying, gas cooling and marking applications are among those who have experienced process improvements from our services.

Our recommendation to switch one customer's coating application from hydraulic nozzles to air atomizing nozzles resulted in reduced waste, lower operating costs and extended nozzle wear life for an estimated annual savings of US\$180,000

Even if you're not experiencing noticeable problems, there may be room for improvement. Call 1.800.95.SPRAY or visit www.spray.com/optimize today to schedule a no-obligation consultation!

For more information on spray research and testing, request Bulletin 520C – *Advancing Spray Technology Through Consulting, Prototyping and Testing.*

APPLICATION CENTER



Meat processor improves food safety and dramatically reduces chemical consumption

Problem:

A ready-to-eat meat processor needed to accurately spray an antimicrobial agent into containers prior to filling and vacuum sealing.

The AutoJet® Technologies Solution:

An AutoJet System using PulsaJet® Automatic Spray Nozzles sprays low doses of antimicrobial agents into packages. An AutoJet Spray Controller uses a trigger signal from an indexing conveyor to activate the spray during the conveyor's dwell time. The controller also monitors pumps and flow sensors to confirm proper flow rates for each spray nozzle. Unacceptable flow conditions trigger fault messages and system shutdown.

More effective and economical than chemical baths or direct spraying, this method provides pathogen reduction of greater than 6 log 10 and chemical savings estimated at more than US\$1,000,000 per year.

FABRICATION



Custom lances and headers ensure seamless integration and optimal nozzle performance

The most critical components in any spray system are the spray nozzles but lances, headers and manifolds can also have an impact on the effectiveness of the system. Our custom fabrication services ensure precise nozzle positioning and trouble-free spray performance along with the convenience of working with a single supplier.

In addition to general purpose lances and headers, we offer custom designs

for unusual installations or applications with tight physical requirements. Our engineers routinely work with special materials, special coatings and a wide range of connections and configurations. Our manufacturing process complies with the most stringent requirements in order to meet your expectations.

For information about our custom fabrication services, visit www.sprayfab.com

