

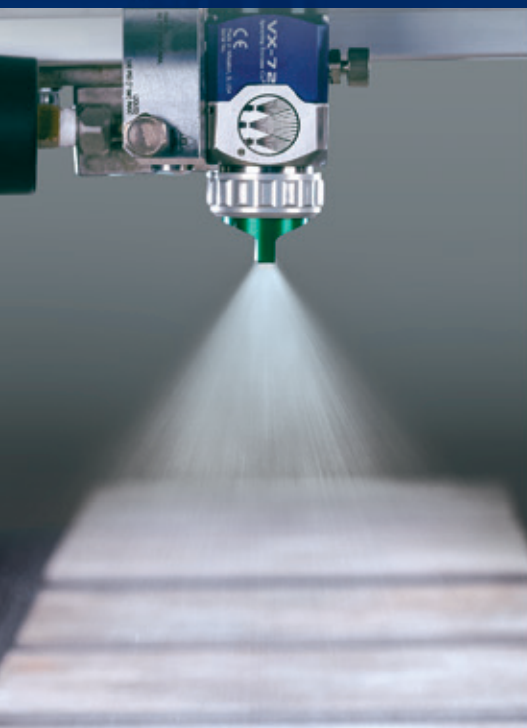


Spraying Systems Co.®
Experts in Spray Technology



AutoJet
TECHNOLOGIES

**BASIC TO ADVANCED AUTOJET® SPRAY CONTROL SYSTEMS:
CONFIGURABLE TO YOUR EXACT REQUIREMENTS**





SPRAY CONTROL OPTIONS FROM SIMPLE TO SOPHISTICATED WITH A WIDE RANGE OF LIQUID & AIR CONTROL COMPONENTS

Achieving the right balance of precision and automation in coating, lubricating and oiling applications can be challenging. Trying to configure a system using components from various suppliers is problematic due to integration and performance issues. Pre-configured systems often include unnecessary features that increase the cost. Now, there's an alternative – configurable, cost-effective spray control systems. Our AutoJet® Spray Control Panels are available with a progressive level of control features. The panels can be paired with various liquid delivery components, air control packages, accessories and mounting kits. You're in control – choose and pay for the capabilities you need and nothing more.

AutoJet Spray Control Panels can reduce waste of costly coatings, eliminate quality problems caused by over- and under-application, boost throughput and minimize manual labor. Just need simple on/off control of nozzles? Interested in flow rate adjustment based on line speed? Need recipe storage or zone control for easy batch changeover? **Just tell us what you need. Your local spray specialist is standing by and ready to help.**

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START BY CHOOSING YOUR LEVEL OF CONTROL

AutoJet® Spray Control Panels feature plug and spray functionality. Connections are conveniently located on the bottom of the panel and are easily accessible. Panels can be mounted on a wall, optional frame and/or mobile cart.

BASIC

1000+ AUTOJET SPRAY CONTROL PANEL



4" color HMI touch screen

- Simple timing control of up to eight air- or electrically-actuated hydraulic or air atomizing nozzles
- Variable, fixed and repeat timing modes
- Two channels for hydraulic nozzles or one channel for air atomizing nozzles
- Line speed: 5 to 50 ft./min. (1.5 to 15.2 m/min.)
- Options: Storage of up to 20 recipes, zone control*

INTERMEDIATE

1750+ AUTOJET SPRAY CONTROL PANEL



4" color HMI touch screen

- Timing control of up to ten air- or electrically-actuated hydraulic or air atomizing nozzles
- Variable, fixed and repeat spray timing modes
- Liquid pressure control for spray nozzles
- Precision Spray Control (PSC) when used with PulsaJet® electrically-actuated nozzles
- HMI Wi-Fi access to adjust settings, view alarms, schedule/review maintenance
- Line speed: 5 to 150 ft./min. (1.5 to 45.7 m/min.)
- Options: Storage of up to 20 recipes, zone control*

ADVANCED

2150+ AUTOJET SPRAY CONTROL PANEL



7" color HMI touch screen

- Single and dual channel versions available
- Timing control of up to 16 air- or electrically-actuated hydraulic or air atomizing nozzles per channel
- Fixed or variable spray time and fixed or variable spray distance; repeat function for all modes
- Liquid pressure control for spray nozzles
- PSC when used with PulsaJet electrically-actuated nozzles
- HMI Wi-Fi access to adjust settings, view alarms, schedule/review maintenance
- Line speed: 5 to 400 ft./min. (1.5 to 121.9 m/min.)
- Options: Storage of up to 20 recipes, zone control*, real-time monitoring of flow rate and pressure*, line speed encoding*

*Additional hardware required. See pages 6 and 7.

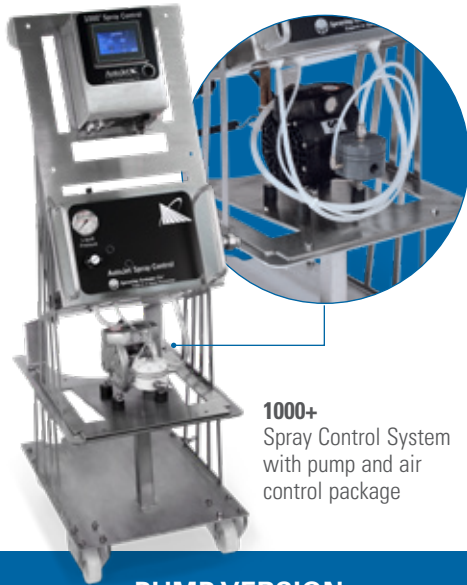
PRECISION SPRAY CONTROL (PSC)

AutoJet Spray Control Panels use PSC to turn electrically-actuated PulsaJet nozzles on and off very quickly to control flow rate. The cycling is so fast that the flow often appears to be constant. Flow rate changes can be based on line speed and occur almost instantaneously to ensure the proper application rate. With PSC, pressure remains constant and flow rate changes do not affect spray angle/coverage or drop size.



ADD LIQUID DELIVERY & AIR CONTROL COMPONENTS

CHOOSE FROM FOUR LIQUID DELIVERY/SUPPLY OPTIONS



1000+
Spray Control System
with pump and air
control package

PUMP VERSION

- Air-operated diaphragm pump
- Liquid supply via tote or tank (non-pressurized)
- Suitable for water, inks, stains, water-based solvents, lubricants, oils, paints and non-abrasive slurries
- Optional liquid recirculation
- Food contact and non-food contact versions available
- Fluid viscosity up to 1000 cP at 68°F (20°C)
- Flow rate: up to 3.5 gpm (13.2 lpm)
- Max. operating pressure: 100 psi (7 bar)
- Max. pump air flow: 6 SCFM
- Air control package required
- Optional fluid heating*



2150+
Spray Control System
without pump and with
air control package

PUMPLESS VERSION

- Liquid flow control provided by internal, air-piloted liquid pressure regulator with air control package (required)
- Optional liquid recirculation
- Optional fluid heating*
- Food contact and non-food contact versions available

*Additional hardware required

SELECT THE LEVEL OF AIR CONTROL BASED ON NOZZLE USE

LIQUID ONLY



LIQUID & ATOMIZING AIR





1750+
Spray Control Systems
with pressure pot and
air control system

PRESSURE POT VERSION

- Liquid delivery via a pressurized vessel
- Controls the liquid flow using an internal manual liquid pressure regulator that sets the air pressure going to the pressure pot
- Choice of 1, 2, 5, 10 or 16 gal. (3.8, 7.6, 18.9, 37.9, 60.6 L) capacities
- Air control package required
- Optional fluid heating*



COATING SUPPLY UNIT

- For use when larger tank size is needed – 16 gal. (61 L)
- Diaphragm pump mated to a back-pressure regulator to recirculate excess fluid pressure back to the supply tank
- Two-way valve inlet allows recirculation of fluid from nozzles back to the supply tank
- Flow rate: up to 12 gpm (45 lpm)
- Air supply pressure: 20 to 100 psi (1.38 to 7 bar)
- Max. liquid temperature: 180°F (82°C)
- Optional fluid heating*
- Optional auto-refill of supply tank*

*Additional hardware required

LIQUID, ATOMIZING AIR & FAN AIR



- Precision liquid regulator for fast and smooth pressure adjustments
- Provides and regulates the air supply to nozzles using atomizing air and/or fan air
- Easy access push-to-connect tube fitting ports
- Liquid and pressure options: 0 to 30 psi (0 to 2 bar), 0 to 60 psi (0 to 4 bar) and 0 to 100 psi (0 to 7 bar)
- Max. air flow: 100 SCFM

OPTIONS & ACCESSORIES FOR EVERY APPLICATION

A wide range of optional features and accessories are available to tailor your system to your exact requirements. User-configurable recipe creation/storage and zone control are two popular options that reduce manual intervention and downtime. Need to heat your fluid? An inline heater is available for all our liquid delivery systems. Looking for a higher level of automation? We offer trigger devices, line speed encoder kits, auto-refill and more. You'll also find system-compatible pressure sensors, flow meter kits, level switches and cables for your convenience.

ZONE CONTROL PANELS



Manual Zone Control Panel

The manual zone control panel allows up to eight spray zones to be used. One push-button switch controls each zone, and each zone can consist of multiple nozzles.



Digital Zone Control Panel

The digital zone control panel is designed for use with an external control system. The panel accepts the activation signal and distributes it to the appropriate nozzle zones.



Digital Zone Control Panel with timing

The digital zone control panel with timing offers the most operating flexibility. You can set the delay and spray times for nozzles in predefined zones to ensure spraying occurs only when the target is in the proper position. Zones can be easily toggled on and off to accommodate various operations.

TANK KIT

- Open-lid 7 gal. (26.5 L) supply tank
- Optional level switch
- Food contact and non-food contact versions



TRIGGER DEVICES

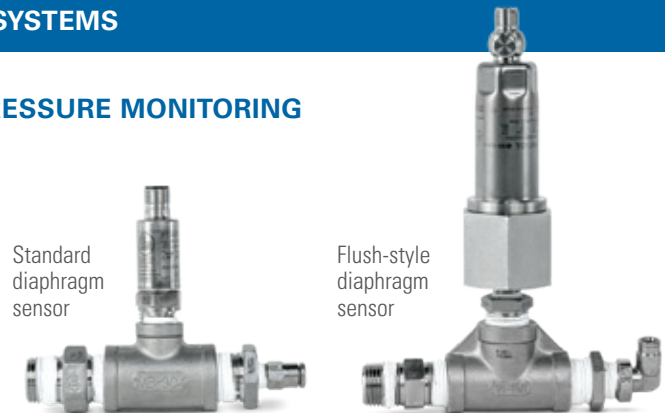
- Trigger cables
- Hand-held trigger device
- Foot-switch trigger device
- Photoelectric object sensor
- Thru-beam object sensor
- Short distance laser sensor
- Long distance laser sensor
- Proximity sensor
- Color sensor



OPTIONS FOR USE WITH 2150+ SPRAY CONTROL SYSTEMS

LIQUID PRESSURE SENSORS FOR REAL-TIME PRESSURE MONITORING IN 2150+ SPRAY CONTROL SYSTEMS

- Standard diaphragm sensor for use with solids-free liquids
- Flush-style diaphragm sensor for use with fluids that contain solids
- Threaded or sanitary connections
- Max. measurement: 100 psi (7 bar)



FLOW METER KITS FOR REAL-TIME FLOW MONITORING IN 2150+ SPRAY CONTROL SYSTEMS

- Clamp-on style flow meter
- Max. flow rate: 5.3 gpm (20 lpm)
- Max. fluid temperature: 212°F (100°C)
- Single and dual channel versions
- Threaded or sanitary connections



LINE SPEED ENCODER KITS FOR 2150+ SPRAY CONTROL SYSTEMS

Hollow Shaft Encoder

- 5/8" hollow bore with tether
- Bore inserts: 1/4", 3/8" or 1/2"
- Enclosure rating: NEMA4/IP65



Wheel and Pivot Mount Encoder

- 3/8" sealed shaft bore
- Enclosure rating: IP67 with shaft seals
- Wheel circumference: 12"



AUTOMATIC NOZZLE OPTIONS FOR EVERY APPLICATION

AutoJet® Spray Control Systems control a wide range of automatic nozzles. PalsaJet® nozzles are a popular choice because they enable the use of Precision Spray Control (PSC) and increased operating flexibility. If PSC isn't required, many other options are available. Choose from electric or air actuation and hydraulic or air atomizing operation. Whether you're coating, lubricating, dispensing, marking or sealing, you'll find a nozzle that provides the drop size and coverage you need.

LIQUID ONLY CONTROL

Electrically-Actuated Hydraulic Nozzles

PalsaJet Series Spray Nozzles*



AA250AUH
Spray Nozzles



Air-Actuated Hydraulic Nozzles

JJAUH Series & 22AUH Spray Nozzles



LIQUID & ATOMIZING AIR CONTROL

Electrically-Actuated Hydraulic Nozzles

PalsaJet Series & 29JAUCO Spray Nozzles



Air-Actuated Air Atomizing Nozzles

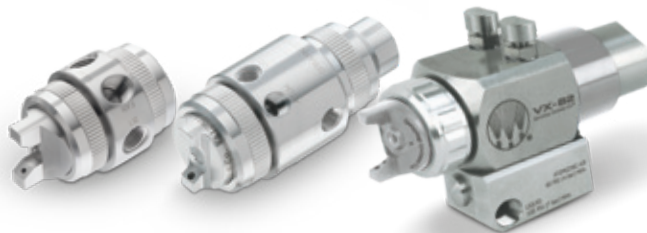
JAU & JJAU Series Spray Nozzles



LIQUID, ATOMIZING & FAN AIR CONTROL

Air-Actuated Air Atomizing Nozzles

VAU, VMAU & VX-Series Variable Spray Nozzles



*Mini-PalsaJets are available for use with the 2150+ Spray Control System only. All other nozzles can be used with the 1000+, 1750+ and 2150+ Spray Control Systems.



SPRAY MANIFOLD OPTIONS

98250 HYDRAULIC PULSAJET® SPRAY MANIFOLD

- Use with PulaJet hydraulic and air atomizing spray nozzles
- User-specified lengths, number of nozzles and nozzle spacing
- User-adjustable nozzle spacing
- Dual inlet ports for liquid recirculation
- Aluminum or stainless steel construction
- IP64 wiring configuration available for single channel or independent banking of nozzles



63600 HYDRAULIC SANITARY JACKETED PULSAJET MANIFOLD

- Heated or non-heated operation
- Hot water jacket can be used as a cooling jacket
- Housing and all internal liquid and conduit lines of manifold are 316L stainless steel construction



63600 AIR ATOMIZING SANITARY JACKETED PULSAJET MANIFOLD

- Heated or non-heated operation
- Hot water jacket can be used as a cooling jacket
- Housing and all internal liquid and conduit lines of manifold are 316L stainless steel construction





ACHIEVING RESULTS WITH AUTOJET® SPRAY CONTROL SYSTEMS

BAKERY ELIMINATES COSTLY QUALITY CONTROL PROBLEM

Damaged cakes and customer complaints due to cakes sliding on cardboard plates during shipping was a costly problem. Coating the cake plate with heated corn syrup eliminated the problem, but the syrup was often overheated and had to be discarded. In addition, workers were routinely over-applying the syrup, creating costly waste and a messy work environment.

An AutoJet Spray Control System with temperature control now applies a precise volume of corn syrup to each plate. The system makes automatic adjustments to flow rate based on line speed and spray pressure to ensure optimal performance.

RESULTS

- **System payback: less than four months**
- Lower scrap rate: cake damage dropped dramatically
- Reduced use of corn syrup: 0.5 grams per plate compared to 7 grams per plate
- Lower operating costs: workers have been deployed to other tasks

CEMENT BOARD MANUFACTURER REDUCES LABOR

A cement board manufacturer was experiencing quality issues caused by inconsistent manual application of a release agent. Over-application was wasteful and stained the final product. Under-application caused damage when the product was removed from the forming board.

An AutoJet Spray Control System equipped with hydraulic PulsaJet® nozzles now applies the release agent. Operators easily adjust the flow rate for different conveyor speeds to ensure the proper volume of release agent is applied. The use of air-atomizing nozzles and compressed air isn't required because the system uses Precision Spray Control (PSC) to generate very low flow rates.

RESULTS

- **System payback: six months**
- Eliminated quality control issues
- Reduced use of release agent
- Lower operating costs: workers deployed to other tasks

TYPICAL USES FOR AUTOJET SPRAY CONTROL SYSTEMS INCLUDE THE APPLICATION OF:

- Antimicrobials and mold inhibitors on meat/poultry, cheese, baked goods and other food products
- Water on baked goods for seed adhesion
- Oil and flavorings on pizza crust, snack foods and more
- Egg wash on baked goods such as buns
- Release agents on molds, pans, parts, conveyors and other equipment
- Disinfectants on products





TEXTILE MANUFACTURER IMPROVES QUALITY & REDUCES DOWNTIME

A textile manufacturer needed to precisely manage the moisture profile of fabric to ensure proper dyeing and finishing. The spinning discs being used to apply water did not provide consistent droplet size or uniform coverage across the width of the fabric. In addition, frequent disc breakdowns caused excessive downtime.

An AutoJet® Spray Control System with PulsaJet® automatic spray nozzles now maintains the desired 12% moisture content despite commonly fluctuating line speeds of 20% or more. Using Precision Spray Control (PSC), the optimal drop size and spray angle are consistently achieved and the moisture is applied uniformly across the width of the fabric.

RESULTS

- **System payback: 11 months**
- Product quality improved enabling a price increase
- Downtime and labor to maintain the system decreased significantly

- Aromas on paper and fabric
- Anti-static chemistry on plastic products
- Corrosion inhibitors on metal rods and sheets

AUTOMOTIVE COMPANY REDUCES MISTING & OVERSPRAY

An automotive company needed to lubricate metal blanks prior to stamping a variety of parts, including Class A exterior pieces. The air-atomizing spray nozzles used to apply lubricating oil created significant misting and were inconsistent in applying the oil.

An AutoJet Spray Control System with PulsaJet automatic nozzles now ensures accurate application of lubricating oil to the top and bottom of the metal blanks even as line speeds vary. The hydraulic nozzles eliminate misting and overspray. Dovetail spray tips speed replacement time and provide automatic spray pattern alignment making maintenance quick and efficient.

RESULTS

- **System payback: 12 months**
- Reduced daily oil use by 70%
- Eliminated compressed air use and energy consumption
- Dramatic reductions in misting for improved worker safety
- Reduced volume of oil waste being hauled away

- Lubricants on machine tools, wire cables, cans and more
- Water mist for cooling on bars and sheet metal
- Moisture on foam to activate adhesives





Spraying Systems Co.[®]

Experts in Spray Technology

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