AUTOJET® MODEL 1550+ MODULAR SPRAY SYSTEM

AUTOMATIC SPRAY CONTROL
MADE SIMPLE

Spraying Systems Co.®
Experts in Spray Technology

AUTOJET® MODEL 1550+ MODULAR SPRAY SYSTEM OPTIMIZES THE PERFORMANCE OF YOUR AUTOMATIC SPRAY NOZZLES

BENEFITS

- Automatic on/off control of nozzles offers greater precision than manual operation or other devices such as solenoid valves. Accurate placement of the sprayed liquid is ensured and waste is minimized
- Automatic air and liquid control means proper flow and drop size and the elimination of quality problems due to uneven application of the spray solution
- Achieve Precision Spray Control (PSC) when used with PulsaJet® or AA250AUH nozzles. PSC allows the use of larger nozzle orifices to reduce clogging and liquid use
- Self-contained unit can be set-up in minutes
- Operates both electrically- and pneumatically-actuated spray nozzles
- Ideal for coating, lubricating and marking applications
- Compact unit can be easily integrated into current operations

AutoJet® TECHNOLOGIES
From *Spraying Systems Co.*

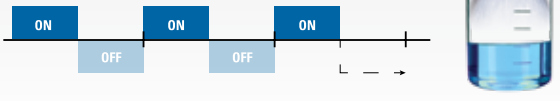
ABOUT PRECISION SPRAY CONTROL

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.

Benefits Include:

- A wide range of flow rates from a single nozzle at a constant pressure
- Flow rate can be changed almost instantaneously
- Flow rate can be automatically adjusted to line speed to ensure proper application
- Low flow rates can be maintained with larger spray orifices to reduce clogging

NOZZLES SPRAYING
50% OF THE TIME



PERFORMANCE OVERVIEW

Pumping Capability

- Inks, stains, water-based solvents, lubricants, oils, paints, non-abrasive slurries
- Fluid viscosity 3000 cP or less at 68°F (20°C)
- Fluid temperatures of 32° to 140°F (0° to 60°C)

Flow and Pressure Rating

- 2 gpm at 40 psi (7.5 lpm at 2.8 bar)
- Maximum air and liquid pressure: 100 psi (7 bar)

Three Selectable Timing Modes

- Fixed spray time
- Variable spray time
- Repeat

Control Options

- On/off control for pneumatically- and electrically-actuated spray nozzles
- Liquid pressure control for both hydraulic and air atomizing spray nozzles
- Air pressure control for air atomizing nozzles
- Fan air pressure control provides spray pattern control for variable spray air atomizing nozzles

Zone Control Options

Turn off electrically-actuated nozzles as needed to accommodate different products or sheet widths with an optional Zone Control Panel. Each zone can consist of multiple nozzles and multiple zones can be configured. Options include manual, digital and digital with timer versions

SPECIFICATIONS:

Control panel: UL Type 1 with door closed (stainless steel)
Power required: 110 VAC, 60 Hz, 15 A, 1 Ø (capable to 260 VAC, 50 Hz, 15 A, 1 Ø)
Air inlet shut-off/lockout and filter assembly
Optional air operated double diaphragm pump
Liquid outlet strainer 100 mesh
Liquid pressure regulator and gauge
Control valve for recirculation to tank (pump and pumpless versions)
Standard triggering options: trigger cable, photoelectric sensor, thru-beam, hand pendant
Controls up to eight electrically-actuated automatic spray nozzles (varies by type)
For automatic line speed adjustments using PSC flow control, a conditioned, 4-20mA signal is required
Dimensions: approx. 31" (0.78 m) tall, 14" (0.36 m) wide and deep, and weighs less than 60 lbs. (27.2kg)

Fluid Delivery Options:

- Pumpless version: regulates pressurized liquid supply
- Pump version: includes integrated air operated diaphragm pump
- Pressure pot version: regulates air pressure to a pressure vessel

Wetted Materials:

STANDARD

- Pumpless version: stainless steel, Viton®, PVC, nylon and nickel-plated brass
- Pump version: stainless steel, Viton, PVC, nylon, nickel-plated brass, polypropylene, PTFE

FOOD CONTACT

- Pumpless version: stainless steel, Viton, acetal, polyethylene
- Pump version: stainless steel, Viton, acetal, polyethylene, PTFE

GENERATING RESULTS WITH THE AUTOJET® MODEL 1550+ MODULAR SPRAY SYSTEM

CHEESE MANUFACTURER SAVES US$143,000 ANNUALLY BY SLASHING MOLD INHIBITOR USE

Application:

The system uniformly applies mold inhibitor (Natamycin) to all four sides of cheese blocks on a moving conveyor. The controller using Precision Spray Control automatically adjusts the flow rate to ensure the proper volume of Natamycin is applied, even when operating conditions change. Object sensors detect when cheese blocks are correctly positioned in the spray station and trigger the hydraulic PulsaJet® nozzles.

Results Since Installation:

Uniform spray coverage decreased Natamycin consumption by 50% and unacceptable mold counts due to underapplication are no longer a problem.

REVENUE GAIN: US$143,000 PER YEAR

SYSTEM PAYBACK: LESS THAN FIVE MONTHS

NEW SPRAY SYSTEM SAVES SOY PROTEIN MANUFACTURER MORE THAN US$312,000 ANNUALLY

Application:

The system applies a fine coating of soybean oil on powdered soy protein concentrate (SPC) to prevent it from becoming airborne while being moved on a conveyor to a crusher. An air-operated, double diaphragm pump enclosed in the system, supplies air atomizing nozzles with the soybean oil.

Results Since Installation:

Uniform coverage of the oil on the SPC powder has solved the drift problem. Powder waste has been dramatically reduced, saving the manufacturer US$20,000 per month.

REVENUE GAIN: US$312,000 PER YEAR

SYSTEM PAYBACK: LESS THAN ONE MONTH

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DOZENS MORE RESULTS STORIES AT
spray.com/results

CAN MANUFACTURER INCREASES REVENUE BY US$4.2 MILLION ANNUALLY WITH NEW SPRAY SYSTEM

Application:

The system sprays a protective coating to the outer welded seams of cans shipped overseas to prevent corrosion. The controller ensures uniform coating by regulating the flow of the liquid to the electrically-actuated nozzles. An optical sensor triggers the nozzles to spray when the cans are properly positioned. An agitator in the system's pressure tank helps achieve an effective coating by properly blending the coating prior to application.

Results Since Installation:

Accurate application of the coating eliminated corrosion issues and 30 million cans were shipped overseas in the first year.

REVENUE GAIN: US$4.2 MILLION PER YEAR

SYSTEM PAYBACK: LESS THAN A WEEK

NEW SPRAY SYSTEM IMPROVES QUALITY IN PAINTING OPERATION; SAVES AUTO MANUFACTURER US$300,000

Application:

The system applies a fine mist of RO/DI water on the floor pans of passenger cars and trucks to prevent dust from kicking up during the painting process. The controller is easily integrated into the current line and provides automated spray control of the nozzles. The PulsaJet® air atomizing spray nozzles, installed on robotic arms, apply the mist consistently and uniformly on the floor pans.

Results Since Installation:

Automated fine mist application reduced dust-related defects by 90% and the costs associated with transporting and reworking rejected auto bodies have been eliminated. In addition, paint and RO/DI water consumption has decreased and production has increased.

REVENUE GAIN: US$300,000 PER YEAR

SYSTEM PAYBACK: LESS THAN 12 MONTHS

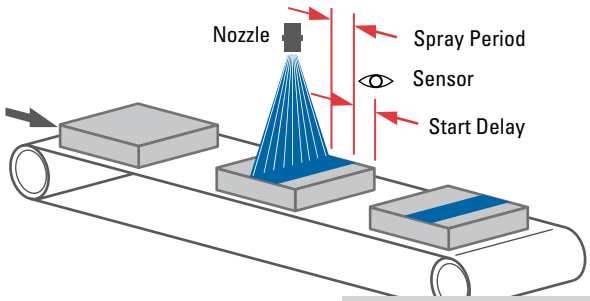
AUTOJET® MODEL 1550+ MODULAR SPRAY SYSTEM TIMING MODES

FIXED SPRAY TIME

The system will spray once after it is triggered based on entered start delay and spray period, then stops spraying until next trigger signal.

Application Examples:

- Marking
- Partial coverage
- Single instance spray
- e.g.: die lube applications



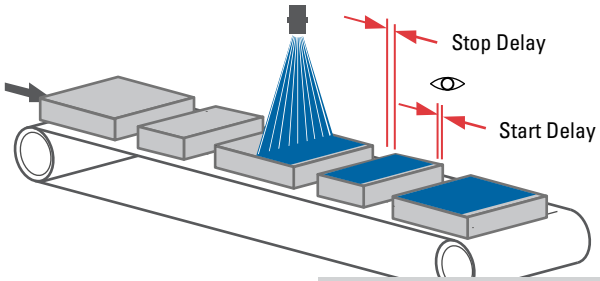
For this mode you enter:
Start Delay
Spray Period

VARIABLE SPRAY TIME

This timing mode creates spray periods of variable lengths. The system will spray following the trigger. Spray period is based on the sensor seeing the object then utilizing the entered start delay and stop delay. The length of the spray depends on the length of the trigger input.

Application Examples:

- Full coverage
- Variable size items
- Variable line speeds
- e.g.: precision spray applications



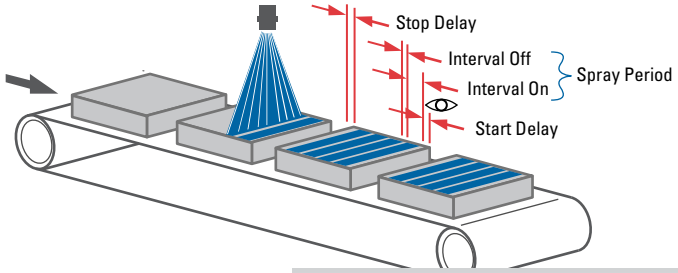
For this mode you enter:
Start Delay
Stop Delay

REPEAT

This timing mode creates a continuous repetition of spray applications for a variable time or spray period based on object size. The system will spray following the trigger, spray period is based on the sensor seeing the object then utilizing the entered timing settings, spray delay, interval on, interval off, repeats these until trigger off signal then incorporates stop delay.

Application Examples:

- Stripping
- Humidification
- Non-full coverage
- e.g.: conveyor applications



For this mode you enter:
Start Delay
Spray Period – Interval On Interval Off
Stop Delay

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