ACCUJET®
ELECTROSTATIC SYSTEMS

PRECISION SPRAYS
FOR UNIFORM COVERAGE

AccuJet®
From Spraying Systems Co.

A SUSTAINABLE SOLUTION
LOW-FLOW, PRECISION MICROSPRAY TECHNOLOGY

SAVE TIME, SAVE LUBRICANT, SAVE MONEY

Spraying Systems Co., is committed to the development and implementation of a Sustainable Management System. With product lines that provide sustainable solutions for our customers, it is our goal to address and develop practices that are beneficial to the environment.

Our electrostatic spray systems are proven to reduce system downtime, eliminate lubricant waste, and save you money. Using low flow rates combined with electrostatic technology, you can be sure you’re getting precise, uniform coverage whether you’re coating a pin-chain or a series of baking pans.

Are you having issues with overspray and product contamination? We have the solution!

**BENEFITS:**

- 99% TRANSFER EFFICIENCY
- NO MISTING - CLEANER, SAFER WORK ENVIRONMENT
- DRASTICALLY REDUCED PRODUCT CONTAMINATION
- REDUCE LIQUID CONSUMPTION UP TO 70%
- IMPROVES PRODUCT QUALITY WITH UNIFORM COATING
- EASY TO MAINTAIN

**3 MONTH PAYBACK**

WHEN COMPARED TO SOME TRADITIONAL SPRAY TECHNOLOGY

**DEFINITIONS**

**What is electrostatic?**

In electrostatic spraying, a negatively charged liquid coating is attracted to a neutral, grounded target. This simple principle has powerful implications for advanced coating technology.

The physical attraction of the liquid to the target pulls the coating to an object’s surface, providing a very high transfer efficiency; typically over 99%.

Due to the attraction and low flow precision spray, overspray is virtually eliminated, reducing clean-up and improving the work environment.
CONTROL BOX OPTIONS:

STANDARD CONTROLLER

Our Standard Controller includes basic alarm functions to alert to low fluid levels, low pressure, and arc fault detection. With an input voltage of 24V, 2 Amps and an output of 30kV and a maximum operating current of 800 µAmps our Standard Controller is one of the safest Electrostatic systems on the market. The Standard control panel is cTUVus and CE compliant. Remote start and stop capabilities are optional. Also available in NEMA 4X rated, our Stainless Steel enclosure to be placed in a wash-down environment. Suitable for food applications.

REMOTE I/O

Uses industrial Ethernet along with a remote I/O panel supplied with the necessary add on program instruction to control the electrostatic spray process. Designed for OEM’s and large companies and is intended to be controlled by the customer’s PLC system via ethernet connection. UL508a and CE compliant. Choice of Siemens or Allen Bradley.

HEATED SYSTEM PLC

As with our Standard Controller, the AccuJet™ PLC Controller includes basic alarm functions to alert to low fluid levels, low pressure, and arc fault detection. This stand-alone unit utilizes a higher input voltage of 115V, 15 Amps to accommodate heated controls. Retaining an output of 30kV and a maximum operating current of 800 µAmps ensures that our PLC Controller is one of the safest Electrostatic systems on the market. The PLC unit is UL compliant. Mounting pedestal optional.

FLUID DELIVERY OPTIONS:

TANK/PUMP ASSEMBLY

The 16 liter tank/pump fluid delivery option includes a positive displacement injector pump for each nozzle to give you independent flow control. This option also features low fluid-level and low air pressure switches.

HEATED TANK ASSEMBLY

The 18 quart heat tank option is a closed loop recirculation system that is typically used with the heated manifold assembly but can be used with other nozzles as well. The system has 3 thermal couples for consistent closed loop temperature control. This tank can be used to lower the viscosity of the fluid allowing our systems to spray a wider variety of products.

DIP TUBE & PANEL MOUNT ASSEMBLY

The Dip Tube & Panel Mount Assembly includes a plate mounted pump that utilizes a larger volume diaphragm pump and needle valves to control the flow rate to the nozzles. This system has a tube assembly that is used with the customer’s drum. The plate mount pump system is typically used with the conveyor style nozzle but is available for the other nozzles as well.
ELECTROSTATIC SINGLE-POINT SPRAY SYSTEM

HOW IT WORKS

The patented electrostatic single-point system applies lubrication with precision, saving oil and reducing maintenance and downtime. With no moving parts to wear out, maintenance is drastically reduced. The system’s low-flow injector pumps can deliver lubricant to as many as eight nozzles with independently controlled flow rates. The standard nozzle includes quick change tips with multiple orifice size options from .010 to .050 inch (.254 to 1.27 mm) ID. High temperature nozzle is capable of reaching temperatures up to 250°F (121°C).

SYSTEM SPECIFICATIONS

- Electrostatic spray nozzles available with flow rates ranging from .01 – 5 cc/min
- Precision low-flow oil pumps provide individual flow control for each nozzle
- Standard system accommodates 1 - 4 pumps and spray nozzles
- 16 liter reservoir includes built-in strainer and oil level switch
- Automatic high voltage shutoff in the event of arcing
- Voltage operates at less than 30 kV* with amperage of less than 1 mA
- Choose from standard or stainless steel NEMA 4X enclosed controller

*S Comparable systems run at 90kV

SINGLE-POINT BENEFITS:

- Uncompromising control
- Precise application rates
- Reduced fluid consumption
- Cleaner work environment due to less overspray

TYPICAL APPLICATIONS

- CHAIN LUBRICATION
- MEDICAL DEVICE COATING
- WIRE & ROD COATING
HOW IT WORKS

The patented single-point shutoff nozzle provides many of the features and benefits of the single point nozzle to deliver a single stream of fine droplets to a target with flow rates as low as .01 cc/min. With the needle controlled shutoff system, accurate starts and stops can be achieved. The nozzle can be easily disassembled for cleaning and maintenance. Nozzle is capable of reaching temperatures up to 250°F (121°C).

SYSTEM SPECIFICATIONS

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
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<tbody>
<tr>
<td>Needle controlled shutoff for precise on/off spray control</td>
<td>Capable of 120 cycles/min</td>
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<tr>
<td>Orifice sizes from .010 to .050 inch (.254 to 1.27 mm) ID</td>
<td>Electrostatic spray nozzles available with flow rates ranging from .01 – 5 cc/min</td>
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<tr>
<td>Precision low-flow oil pumps provide individual flow control for each nozzle</td>
<td>Automatic high voltage shutoff in the event of arcing</td>
</tr>
<tr>
<td>Voltage operates at less than 30 kV* with amperage of less than 1 mA</td>
<td>Choose from standard, stainless steel NEMA 4X enclosed, or PLC controller for greater flexibility</td>
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SHUT-OFF BENEFITS:

- Intermittent spray control
- Precise application rates
- Reduced fluid consumption
- Cleaner work environment due to less overspray

TYPICAL APPLICATIONS

- LARGE CONVEYOR CHAINS
- PULLEYS, GEARS, & BEARINGS
- MEDICAL DEVICE COATING
ELECTROSTATIC SINGLE-POINT HEATED SYSTEM

HOW IT WORKS
The patented electrostatic heated spray system applies a heated lubricant with precision reducing waste and maintenance and downtime. Lubricant recirculates through the system, allowing the substance to remain warm before application. Number of nozzles are determined by customer specifications. Nozzle is capable of reaching temperatures up to 250°F (121°C).

SYSTEM SPECIFICATIONS

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<th>Capability</th>
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<tbody>
<tr>
<td>Capable of 120 cycles/min</td>
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<tr>
<td>Heated Tank and lines for greater temperature control</td>
</tr>
<tr>
<td>Orifice sizes from .010 to .050 inch (.254 to 1.27 mm) ID</td>
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HEATED SPRAY BENEFITS:
• Precise temperature control from tank to the target – no more waste caused by coatings that are too hot or cold
• Coatings are accurately applied to the target with minimal overspray or misting
• The automatic spray control system self-adjusts for line speed changes to maximize production time

TYPICAL APPLICATIONS
• BEVERAGE CAN WAX APPLICATION
• GENERAL INDUSTRIAL/GREASE
• STAMPING
HOW IT WORKS

The patented Conveyor system is designed to deliver a very fine, uniform spray at low flow rates (0.1cc/min) improving product quality, eliminating misting and overspray, saving oil and reducing maintenance and cleanup. The nozzle uses electrostatic technology to evenly apply droplets for consistent coating.

SYSTEM SPECIFICATIONS

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<td>Systems available</td>
<td>6”, 12”, 18”, 24”, 30”, 36” (152.4mm, 304.8mm, 457.2mm, 609.6mm, 762mm, 914.4mm) nozzle configurations; other configurations available upon request.</td>
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<tr>
<td>Flow rates range from</td>
<td>0.1cc/min to 20cc/min</td>
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<tr>
<td>Choose .020 or .030 inch (.508 or .762 mm) ID orifice sizes</td>
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<tr>
<td>Choose from standard or stainless steel NEMA 4X enclosed controller</td>
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<tr>
<td>16 liter reservoir features a piston-style pump with your choice of</td>
<td>standard industrial or stainless steel fittings</td>
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<td>Pump manifold and dip tube fluid delivery option also available</td>
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CONVEYOR SPRAY BENEFITS:

- Improves product quality with uniform coating
- High transfer efficiency saves on costly oils and coatings
- Greatly reduces misting and overspray, creating a cleaner, safer work environment
- Easy to maintain

TYPICAL APPLICATIONS

- BAKERY & SNACK FLAVOR
- PAN AND CONVEYOR LUBRICATION
- ROLLED METAL LUBRICATION
TESTING SERVICES

Every company has specific oils and liquids that are used in their production process, AccuJet will test your materials in our lab to assure that a more efficient coating adheres to your product.

If your spray application requires a high level of accuracy or if you’re experiencing long maintenance times and shut downs, Spray Analysis and Research Services can evaluate your current application for improvement and optimize spray performance.

Based on materials used, the return on your investment could be as soon as 3 months in terms of cost savings by minimal coating waste, greater energy efficiency, less product usage, maintenance downtime and clean-up.

ADDITIONAL RESOURCES

AccuJet® Electrostatic Chain Oiler System, Bulletin 661C
Describes how the electrostatic single-point system can be utilized to increase chain life and reduce oil consumption.

AccuJet® Electrostatic Conveyor System, Bulletin 710A
Explains how the electrostatic conveyor system creates a cleaner, safer work environment while providing uniform coverage.

AccuJet® Heated System, Bulletin 727
Learn about the spray possibilities that become possible with the electrostatic heated spray system’s recirculating heated lines.

AccuJet® Ultrasonic System, Bulletin 660B
Details how this system uses ultrasonic vibration to produce an extremely fine spray ideal for high-precision and thin-film coatings.