Spray Optimization Strategies

Set Spray Performance Standards with Spray Analysis

Setting baseline performance standards is critical to the success of your spray optimization program – you can’t begin to optimize performance until you’ve established some performance goals. In some cases, the signs that your spray system could be improved are easy to spot. More frequently, the signs are subtle and may require spray analysis to detect.

Our Spray Analysis and Research Services group has decades of experience in testing, research, spray nozzle design and nozzle fabrication, and they operate the industry’s most sophisticated spray laboratories. Our engineers test spray performance using the actual operating parameters of your application and make recommendations that may include adjusting spray parameters or changing spray nozzles.

In addition to spray performance testing, we conduct proof-of-concept tests, quality control tests and design prototypes for new product or process development. Operations that require precision spraying typically benefit the most from advanced spray analysis. 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.

Following are just a few examples of innovative spray solutions that originated in our spray analysis labs:

- Effervescent spray technology for use in chemical production.
- Spray characterization and header design to ensure sanitary conditions in food processing.
- Nozzle testing and design for microparticulates used in drug discovery.
- Spray performance testing and header design to minimize excessive misting and provide uniform coverage of paint on non-woven material.
AutoJet®
Automated Spraying Systems

AutoJet Spray Controllers: The brains of our automated systems, the controllers are pre-programmed with nozzle performance and spray application data.

Gas Conditioning System: Maximizes the performance of FloMax® air atomizing nozzles for highly accurate, closed-loop temperature control.

Modular Spray Systems: Self-contained systems provide improved spray control of lubricants and coatings for numerous industrial applications. Available with Spray Desk, cart-mount or wall-mount configurations.

Zoned Cooling Systems: Precisely controls temperature variations across the entire width of a production line by monitoring and cooling adjacent zones independently.

Spray Optimization Strategies

Optimize Performance with Precision Spray Control

A spray nozzle can only perform properly if the entire spray system is operating efficiently. For peak system performance, all system components – nozzles, pumps, sensors, hydraulics and pneumatics – must be accurately controlled.

AutoJet Technologies is the spray control and automation division of Spraying Systems Co. We engineer turnkey systems that automatically monitor and precisely control spray performance.

Many of our customers have discovered that automated systems quickly pay for themselves by saving chemicals, improving coating quality, reducing scrap and increasing conveyor speed.

You may benefit from spray automation, if you answer “yes” to any of these questions:

• Do you need to control the flow rate for your spray application based on conveyor or line speed?
• Does your production require sprays that change with: product size, shape or position; temperature; humidity?
• Is coating coverage critical to your product’s success, or are you concerned with coating costs?
• Do you need to shut your spray system down under certain operating conditions?
• Does your process require you to frequently choose among multiple spray set-ups?
• Is liquid overspray on equipment or floors creating a hazardous work area?
• Do you buy more regulatory emissions or discharge permits than you need to?

www.autojet.com
Ensure Total Integration and Optimal Performance with Custom Spray Lances and Headers

The most critical components in any spray system are the spray nozzles, but other components – lances, headers, manifolds – can have an impact on the effectiveness of the system. That's why we offer custom design and fabrication services – to ensure trouble-free spray performance and the convenience of working with a single supplier.

We offer a line of standard lances and headers that may be suitable for your application, but if you require something a bit unusual or are challenged by tight physical requirements, we can help. Our engineers routinely work with special materials, special coatings, a wide range of connections/configurations and non-standard lengths up to 25 ft. (7.6 m).

You'll find we've invested heavily to keep pace with our customers’ needs. We are compliant with many ASME® manufacturing codes as well as ANSI® and ASTM® testing standards. In addition, we have ISO 9001: 2000 and ISO 14001 certification and provide complete material traceability, Material Test Reports (MTR), Certificates of Conformance and more.

Tell us what you need and we’ll design it

Recent examples of custom fabrication projects include:

- Insulated, water- or steam-jacketed lances for high temperature applications.
- Retractable lances to avoid process interruption.
- Flexible lances with flexible hose adjustment for easy nozzle positioning.
- Desuperheating lances for reduction in steam volume.
- Spray headers that accommodate many different nozzle types to save space and money.
- Spray headers that ensure perfect overlapping of sprays to achieve uniform coverage.
- Open channel and enclosed box style headers that include a hot water recirculation system to maintain consistent temperature of the solution being sprayed.
- Headers with control systems to automate operation and optimize performance.

Custom Spray Lances and Headers
www.sprayfab.com

Spraying Systems Co.
Experts in Spray Technology