



# SPRAY TECHNOLOGY FOR TABLET COATING

VMAU, JAU, MODULAR MANIFOLD



***Spraying Systems Co.***<sup>®</sup>  
Experts in Spray Technology





# COMPLETE SPRAY SOLUTIONS FROM R&D TO PRODUCTION SCALE

IMPROVE SPRAY PERFORMANCE WITH AUTOMATIC NOZZLES AND MODULAR MANIFOLDS

From small research and development projects up to full production scale, Spraying Systems Co. offers a variety of products to meet your tablet coating needs. With the ability to design custom products with materials and components to meet all current cGMP and FDA guidelines, we are able to provide solutions to even the most complex coating challenges while improving product quality and reducing maintenance costs.

Our expertise in spray technology can help you determine the optimal flow rate, spray height, nozzle spacing, and other critical parameters to maximize your process efficiency, cutting costs and reducing waste. With our state-of-the-art spray labs, we also have the capability to simulate our customer's operating environments, ensuring that our customized products and systems are optimized for your application; and with a global network of sales offices and manufacturing facilities, we are able to provide superior service and support for our products worldwide.

## DEDICATED TO MEETING YOUR cGMP REQUIREMENTS

Spraying Systems Co. has the capability to develop custom spray products that meet your current cGMP requirements as well as design products in compliance with ASME® BPE standards. In addition, we supply extensive turnover packages detailing our entire fabrication process.



## CUSTOM ENGINEERED TO MAXIMIZE YOUR COATING EFFICIENCY

### MINIMIZE CLEANING AND MAINTENANCE DOWNTIME

- Mechanically polished and electro-polished surface finish including internal flow passageways for easy cleaning
- Threadless, modular design disassembles in seconds for cleaning or maintenance, reducing process downtime

### FLEXIBLE TO MEET YOUR NEEDS

- Wide variety of spray set-ups, nozzle sizes and mounting options
- Patented modular design of manifold and nozzles offers the flexibility to fit various unique spray applications
- FDA-compliant materials of construction

### SUPERIOR SPRAY PERFORMANCE

- Uniform spray distribution
- Increased throughput with improved spray and product quality
- Independent controls of liquid, atomizing air and fan air for fine-tuning of spray capacity, droplet size, and spray patterns

### REDUCE COSTS

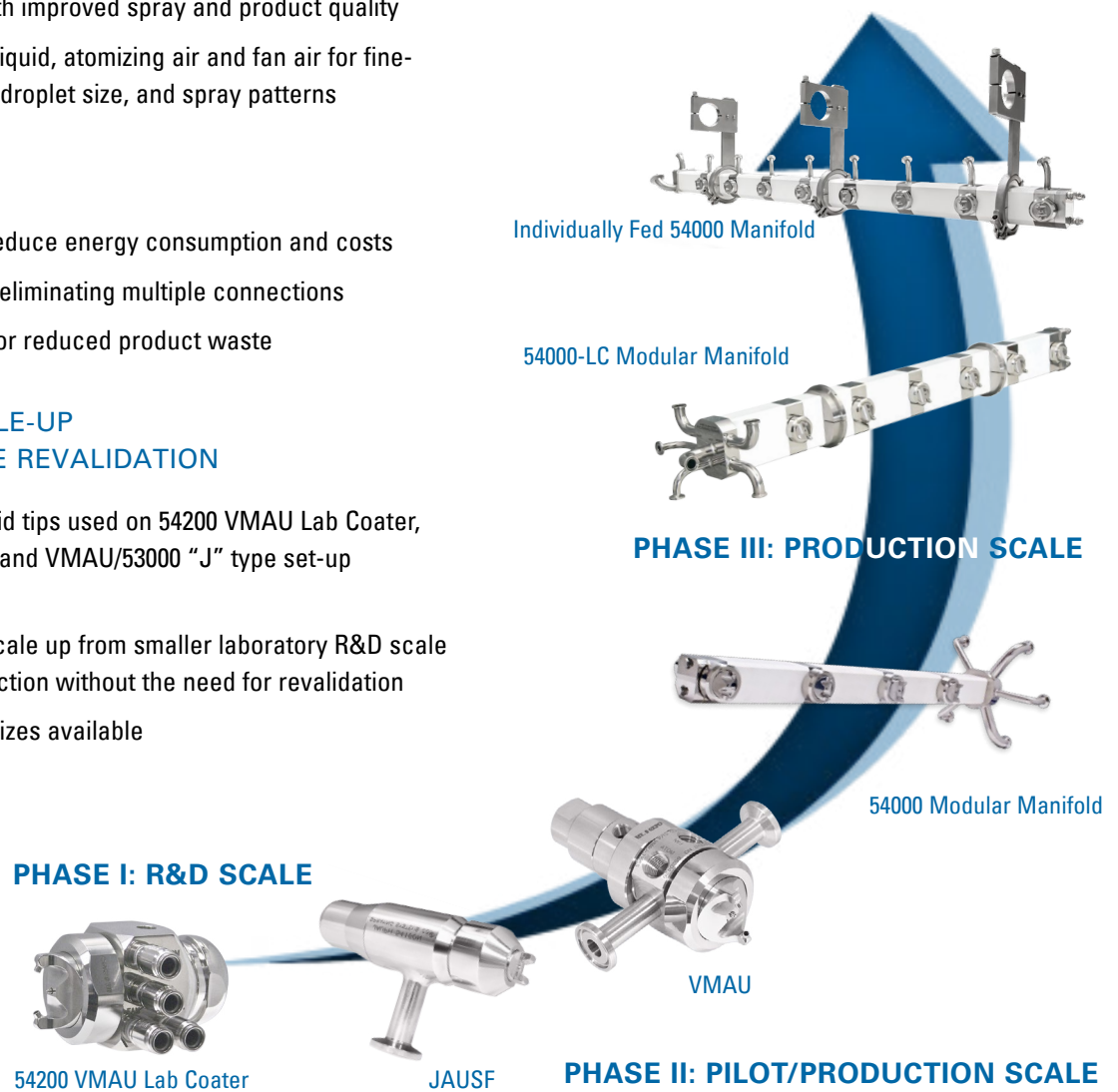
- Adjustable fan settings reduce energy consumption and costs
- Save time and money by eliminating multiple connections
- Minimize over-spraying for reduced product waste

### SIMPLIFY YOUR SCALE-UP WITHOUT EXTENSIVE REVALIDATION

- Same size setups and fluid tips used on 54200 VMAU Lab Coater, 54000 Modular Manifold and VMAU/53000 "J" type set-up automatic spray nozzles
- This makes it simple to scale up from smaller laboratory R&D scale applications to full production without the need for revalidation
- Wide range of capacity sizes available

### ANTI-BEARDING SETUPS

Provide superior bearding resistance, dramatically cutting cleaning and maintenance downtime, allowing users to run their spray operations for many times longer without shutting down.

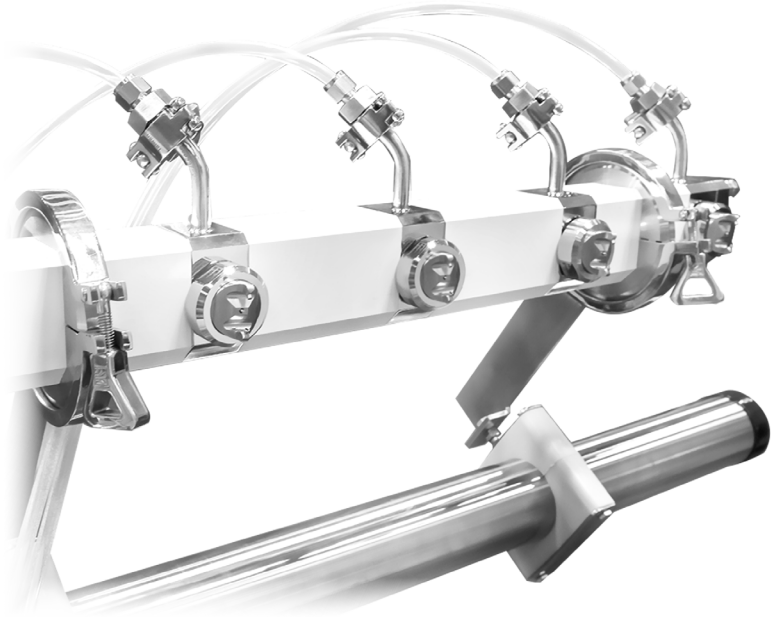


## INTERNAL RECIRCULATING SPRAY GUNS REDUCE CLOGGING AND IMPROVE COATING RESULTS

Each Individually Fed 54000 Manifold is equipped with 4 or more individually fed, re-circulating VMAU spray nozzles, allowing the coating solution to flow continuously and re-circulate through the system while the nozzle needle is extended for cleaning/shut-off.

Continuous flow is significant in tablet coating processes because many coating solutions are suspensions (i.e., solids suspended in a liquid). Great care is taken to agitate the liquid and deliver it to the nozzle at a high enough flow rate to prevent the solids from settling, which can occur if the liquid stops flowing, or if the flow rate becomes too low.

By providing a mechanism to allow the liquid to continue flowing through the system when the needle shuts off the flow to the nozzle a recirculation port in the manifold body maintains agitation of the coating solution, allowing the solids to remain in suspension and thereby reducing the risk of clogging/settling.



[VISIT WWW.SPRAY.COM/PHARMCATALOG TO LEARN MORE](http://WWW.SPRAY.COM/PHARMCATALOG)

Fluid Air TABCOATER®, **FA107**

Modular Air Atomizing Manifold, **Bulletin 562B**

54200 VMAU Lab Coater, **Bulletin 672**

P-Series Anti-Bearding Spray Setups, **Bulletin 687B**



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