



A Division of *Spraying Systems Co.*®

## FLUID AIR PROCESS AND BIOLOGY LABS



### COMPREHENSIVE. ACCURATE. FAST.

Fluid Air's lab teams will work with you to determine the right solutions for drying, including low-temperature electrostatic drying. With the breadth and depth of expertise and capabilities built into the process and bio labs, Fluid Air offers its customers a complete suite of expertise required to develop processes customized for their products.

#### PROCESS LABORATORY

Our process laboratories can perform formulation analysis and optimize processes and product characteristics for full-scale manufacturing and the market. We can also bring our state-of-the-art PolarDry® equipment into your facility.

Fluid Air's experienced process engineering team members have backgrounds in pharmaceutical, nutraceutical, food, chemical, and biopharmaceutical industries. These engineers and scientists have bachelors, masters, and PhDs in bioengineering, biomedical engineering, microbiology, biotechnology, and chemistry. Fluid Air supports process labs around the world, including France, China, and Australia.

Fluid Air's pilot process labs are equipped with lab- and production-scale PolarDry® and oral solid dosage machines, as well as analytical equipment such as scanning electron microscopy, differential scanning calorimetry, and ancillary instruments that assist in particle engineering.

#### BIOLOGICAL LABORATORY

Fluid Air's biological laboratory at its Naperville, Illinois headquarters offers a complete range of analytical technology for testing and optimization of pharmaceuticals and microbiological products in strict confidentiality.

The Fluid Air bio lab can process pharmaceuticals, probiotics, microbiome therapeutics, agricultural bacteria, and biologics like plasma, proteins, peptides, and oligonucleotides and is set up to work with Biosafety Level 1 organisms and biologics.

The bio lab's range of technical applications include:

- Small- and large-scale culturing of bacteria
- Pre-formulation and formulation
- Process development and scale-up
- Fluorescence and luminescence bioassay development
- Viability and survival rate determination



### BIO LAB EQUIPMENT

- Biosafety hood
- Autoclave
- Incubators/Environmental chambers
- Cryofreezer
- Fluorescence and luminescence microplate readers
- Bioreactor and chambers
- Large-capacity and bench centrifuges

### ANALYTICAL LAB EQUIPMENT

- Loss-on-drying moisture analyzers
- Water activity meter
- Particle size analyzer
- Scanning electron microscope
- Differential scanning calorimeter
- Viscosity measurement
- Adenosine triphosphate meter

### ANCILLARY EQUIPMENT

- Microfluidizers
- Solids/Liquid injection manifold in-line mixer
- Particle screener for separation of particles by size on PolarDry® Model 032
- Nitrogen glove box and laboratory hood space
- Ultra-low temperature freezer

### POLARDRY® AND ORAL SOLID DOSAGE EQUIPMENT

- |                    |                  |
|--------------------|------------------|
| • PolarDry® 0.1    | • GRANUMILL® JR. |
| • PolarDry® 001    | • MAGNAFLO® 0002 |
| • PolarDry® 004 SD | • PHARMX® PX1    |
| • PolarDry® 032    |                  |

### SEE FOR YOURSELF

Work with our in-house lab to compare PolarDry® results to your current processes.

Contact Fluid Air at **1-855-905-2228** or request testing now at [fluidairinfo@spray.com](mailto:fluidairinfo@spray.com)



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*\*The Fluid Air biology lab currently only provides analytical services for powders processed in-house during a Fluid Air trial. Results are for informational purposes only.*