

Solutions for formulation challenges

Formulation challenges for enhancing the bioavailability of poorly soluble APIs can be solved by spray drying. We have extensive capabilities and expertise in process development, scale-up, and manufacturing of spray dried material for preclinical to commercial needs. Bring us your formulation challenges and we will bring you years of experience to get your molecule to market. Partner with us for a better API and formulation solution today.

Spray drying capabilities from preclinical to commercial scale

Equipment/sites	Buchi B-290 Spray Dryer (Bend, OR, US and Bourgoin, France)			GEA Mobile Minor™ and Anhydro™ MicraSpray 150 spray dryers (Bend, OR, US)	Anhydro™ MicraSpray 400 (Florence, SC, US)	GEA Pharma-SD™ type PSD-3 (Cork, Ireland, aqueous only)	Anhydro™ MasterSpray 1250 (Florence, SC, US)
Scale	1–100s g	100–1,000s g	1–10s kg	10 kg–0.5 MT		100 kg–MTs	
	Preclinical	Phase I and II		Phase II and commercial		Commercial	

Scale up

Scientific and engineering expertise in spray drying thermodynamics








Our focus is on your molecule's success and the Quadrant 2™ predictive modeling tool uses proprietary algorithms to provide the optimal combination of technology and excipient to enhance the solubility of your molecule. Across a global network, Thermo Fisher Scientific has manufacturing capabilities for amorphous solid dispersions to enhance bioavailability of poorly soluble molecules, applicable to a broad range of APIs.

Spray drying expertise

- For process development and scale-up activities, we utilize benchtop Buchi B-290, Anhydro MicraSpray 35, and larger-scale GEA Mobile Minor and Anhydro MicraSpray 150 spray dryers at our Bend, OR site.
- Further scale up to commercial volumes is available at our facility in Florence, SC with commercial-scale Anhydro MicraSpray 400 and MasterSpray 1250 spray dryers.
- Aqueous spray drying for late phase development and commercial scale is available from our Cork, Ireland site utilizing GEA PSD-3 equipment. Full analytical support plus Quality by Design, PAT tools implementation, design of experiments, and process validation are also available.
- Teams from the Bend, OR and Florence, SC sites cooperate closely to support technology transfer activities and collaborate with clients to mitigate risk through process development, NDA submission and launch.

In addition, we can offer API manufacture, solid state chemistry and drug product development and commercial supply services with your spray drying needs to deliver an integrated offering to solve your challenges and move your product to the next milestone.

Proven track record

-  Low to high potent handling
-  Grams to metric tons
-  More than 400 molecules analyzed using Quadrant 2 predictive modeling tool
-  More than 120 molecules spray dried
-  More than 60 molecules progressed to the next development phase
-  Scale up from development to commercial scale
-  Integration of API, spray drying, and drug product services

From spray drying to preclinical and commercialization, we can be your full-service partner. Contact us today.