



SERVICES AVAILABLE

- LAB SCALE
- PILOT SCALE
- MANUFACTURING SCALE
- HIGH PURITY SPRAY DRYING

SPRAY DRYING SERVICES

Spray drying is the method whereby solutions or slurries are rapidly dried to final particulate form by atomizing the liquid into a heated chamber. By making the droplets small enough and the chamber large enough, the droplets are dried before the droplets reach the wall of the chamber. The resulting product is a free-flowing material.

In a typical drying operation, the slurry to be dried is pumped into the chamber to atomizers or spray nozzles designed to disperse the liquid slurry into a controlled drop

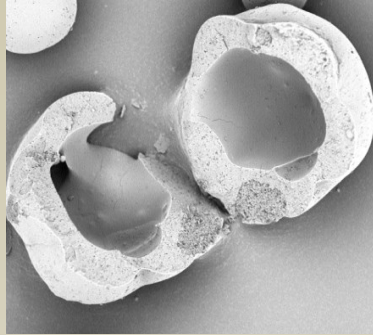
size spray. AVEKA's atomization techniques includes two-fluid nozzles and single-fluid high pressure swirl nozzles. The droplets of the solution or slurry are then introduced into the hot gas/air flow in a mixing chamber designed with adequate residence time and droplet trajectory distance to dry the sprayed material.

AVEKA Group

*AVEKA Inc
AVEKA Manufacturing
Cresco Food Technologies
AVEKA Nutra Processing
AVEKA CCE Technologies*

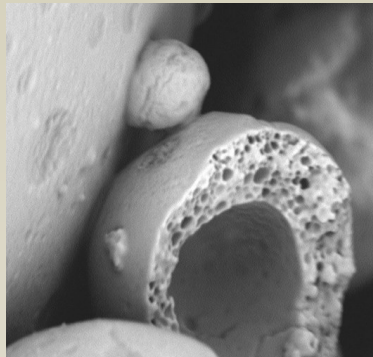
Spray Drying

In all dryers, there is some method for removing the product from the chamber after drying. In tower dryers, the chamber is equipped with a cone bottom. Gravity and air flow from the drying air is used to convey the product from the chamber to a cyclone or baghouse collector. In box type dryers, the product falls to the bottom of the chamber and is swept to a discharge point by a reciprocating unloader.



Examples of materials that we have spray dried:

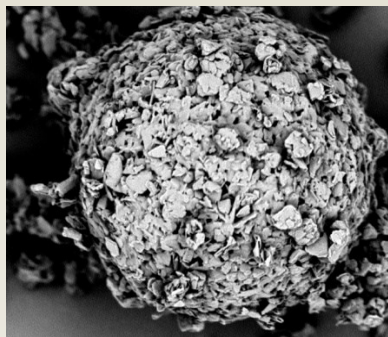
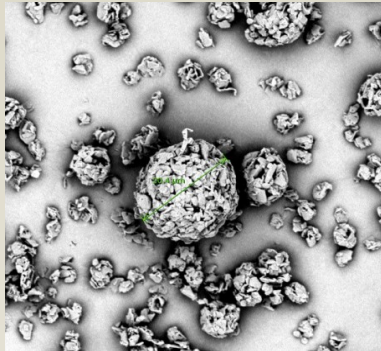
- Industrial materials: polymers, ceramics, surfactants, inorganic salts, pigments, microencapsulated particles
- Food grade materials: proteins, starch, buffered vinegar, corn stillage, nutraceuticals



Quality Pledge

- Commitment to safety
- Prioritize customer satisfaction
- Consistent, exceptional product
- Strong business partnerships
- IP model that works for everyone
- USDA, FSIS inspected, certified
- Kosher Certified
- Certified Organic
- FSSC 22000
- ISO 9001:2008
- HACCP Program

Let us work with you to develop an innovative plan to take your idea from concept to commerce.



AVEKA Inc

Small to medium scale

- Tower dryers
 - Industrial grade materials
 - Drying capacity: 0.5 to 200 lbs/hr water evaporation
 - Batch sizes: 10 lbs to 2,500 lbs
- Laboratory dryers
 - Food or industrial grade materials
 - Drying capacity: 1 to 4 gal/hr water evaporation
 - Particle sizes: 5 to 50 microns

AVEKA Manufacturing

Large scale manufacturing

- Rogers Box Dryer
 - Food grade materials
 - Drying capacity from 3,500 to 4,500 lbs/hr water evaporation
 - Particle sizes: 50 to 100 microns
- Evaporator – capacity 2,500 lbs/hr
- Packaging lines – bags, boxes, drums, super sacks

Cresco Food Technologies

Large scale manufacturing

- Rogers Box Dryer
 - Food grade materials
 - Drying capacity: 3,500 to 4,500 lbs/hr water evaporation
 - Particle sizes: 50 to 100 microns
- Packaging lines – bags, boxes, drums, super sacks

AVEKA Nutra Processing

Medium to large scale manufacturing

- Two Tower Dryers
 - Food grade materials
 - Drying capacity: 750 to 4,000 lbs/hr water evaporation each
 - Particle sizes: 25 to 75 microns
- Evaporator – capacity 1,000 lbs/hr
- Packaging lines – bags, boxes, drums, super sacks