Mini Spray Dryer B-290
The world leading R&D solution for Spray Drying

For more than 30 years BUCHI provides an easy to use product with proven performance. Discover its outstanding efficiency and flexibility.

Proven performance
The most established and flexible instrument for lab spray drying

Cost efficient
Achieve reproducible results at minimal costs

Easy to use
Fast setup and easy to operate
Mini Spray Dryer B-290
Key features and advantages

Peristaltic pump
Delivery of sample to spraying nozzle

Flow meter
Valve for setting the gas flow for the nozzle

Control panel
Direct control of process parameters

Outlet temperature sensor
Precise temperature monitoring

Cyclonic separator
Separation of dry particles

Product removal flask
Sample collection
Dehumidifier B-296
- Constant ambient conditions
- Condensation of water
- For use in combination with Inert Loop B-295 for solvents and water-based mixtures

Three nozzle variations
- Two-fluid nozzle for particle sizes 2 – 25 µm
- Three-fluid nozzle for spraying immiscible fluids.
- Ultrasonic Package for particle sizes 10 – 60 µm

Inert Loop B-295
- For working in inert atmospheres
- Condensation of solvents
- Feedback of inert gases

Application
Experienced BUCHI technicians in our laboratories all over the world will be happy to help you configure your specific application. There is also a database containing details of several hundred applications

Application-specific glassware
- High-performance cyclonic separator for small particles
- Brown glass for light-sensitive products
- Decontamination flask
- Custom designs also possible

Spray solidification bath
Spray solidification bath for working with molten wax and polymer samples with a melting point of up to 70 °C

The Mini Spray Dryer B-290 is a user-friendly laboratory-scale spray-drier. Its sturdy glass apparatus provides a clear view of the process and can easily be cleaned and assembled by a single person. The desired particles or microcapsules ranging in size from 2 – 60 µm are quickly produced using a low-impact and energy-efficient process.

Spray drying comprises the following main stages: preparation of the spraying solution, spraying the solution, separating the particles and removal of the dry powder.
B-290: Your most important benefits

Proven performance
Large range of applications due to:
- free access to global application database
- over 700 publications
- over 400 patents
- local application support by BUCHI
- thousands of satisfied customers

Cost efficient
- Reproducible powder production at lab scale
- Small sample amount saves valuable material (> 5 g)
- High yields (up to 70%)
- Fast drying process (up to 1 L / h)
- Shorter times to optimize formulations
- Lowest maintenance costs

Easy to use
- Intuitive handling
- Scale up to pilot or industrial scale possible
- Fast setup and cleaning times
- Visible process due to glass assembly
- Adjustable particle size (2 – 25 microns)

Complete your portfolio

Nano Spray Dryer B-90
Spray Dryer for small samples and particles

Encapsulator B-390 / B-395 Pro
Gentle bead and capsule production

Rotavapor® R-300
Convenient and efficient rotary evaporation

NIR-Online®
Production quality control in real time

www.buchi.com/spray-drying