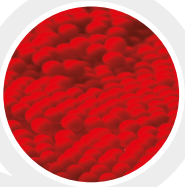
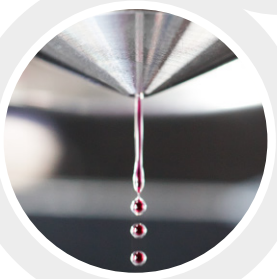
Encapsulator B-390
For innovative microbeads and microcapsules

The versatile system for controlled encapsulation of active ingredients and materials for laboratory-scale research and development work. The simplicity and adaptability of the device allow its use in a variety of areas – pharmaceuticals, materials, cosmetics, the food industry and agriculture.

Versatile
Numerous applications in a variety of scientific fields





Reliable
Efficient, reproducible encapsulation process

User-friendly
Intuitive to operate and easy to maintain

Encapsulator B-390

Your partner for the production of microbeads and microcapsules

Pulsation unit
Precise generation of mechanical vibrations (40 – 6000 Hz)

Nozzle heating
Processing of melts up to 80 °C

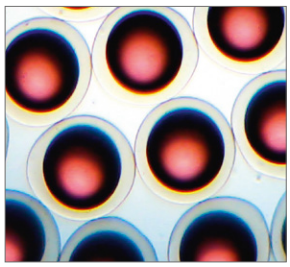
Control panel
Intuitive control of process parameters

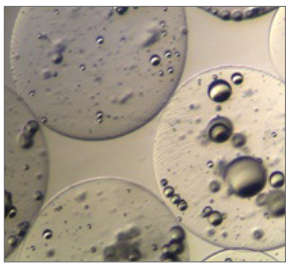
Pressure regulating valve
Precise control of pressure up to 1500 mbar

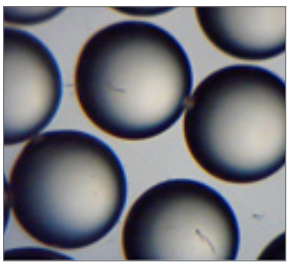
Stroboscopic lamp
Visualization of droplet formation process

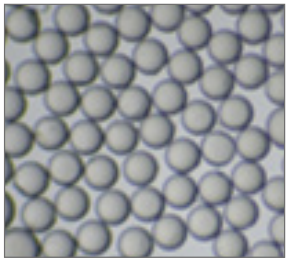
8 precision nozzles
(80, 120, 150, 200, 300, 450, 750 and 1000 µm)

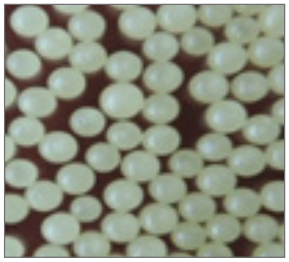
Application examples

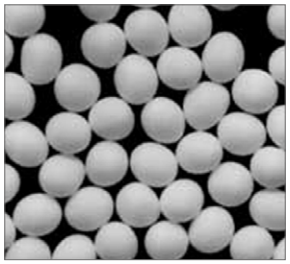

Alginate capsules with oil core and red colouring


Alginate capsules with multiple oil cores


Beads made of gelatine with Vitamin C


PLGA beads with Ibuprofen


Dried gelatine beads


Wax beads

Key features and options

Concentric nozzle system

Concentric nozzle system for creating core-shell capsules (dia. 200 – 2000 µm)

Flow vibration nozzle

Airflow-assisted nozzle system for producing beads (dia. 80 – 1000 µm) from highly viscous polymers

Big capsules nozzle

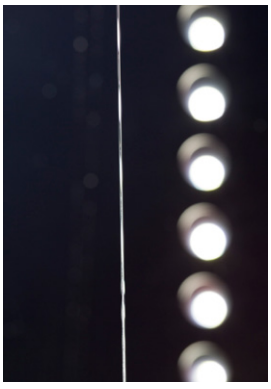
Nozzle system for production of large core-shell capsules (dia. 2 – 4 mm) by means of drop separation process

Nozzle heating

The integrated nozzle heater expands the breadth of applications. It enables the processing of melts such as wax or gelatine

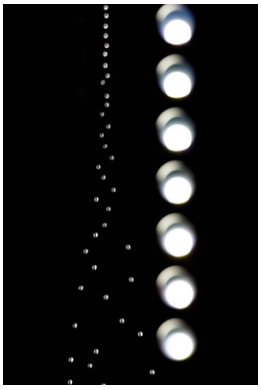
Method of operation

A laminar-flow fluid jet is subjected to a superimposed mechanical vibration, as a result of which it disintegrates into regular-sized droplets. They are then hardened by means of chemical or physical processes. Easy to achieve with the Encapsulator B-390 from BUCHI!



Generation of a stable fluid jet

Generation of a stable, vertical droplet chain



Electrostatic dispersal of the droplet chain

Encapsulator B-390: Your most important benefits

Versatile

· Production of monodisperse microbeads and microcapsules
· Choice of particle diameters between 80 µm and 4000 µm
· Suitable for the encapsulation of microorganisms, organic and inorganic substances

Reliable

· Efficient, reproducible encapsulation process
· Exceptionally tight particle size distribution
· High encapsulation efficiency and high yields

User-friendly

· Intuitive to operate and easy to maintain
· Quick and easy process optimization thanks to visualization of droplet formation
· The BUCHI application database and BUCHI application support help you get the most out of working with the Encapsulator B-390

Complete your portfolio

Mini Spray Dryer B-290
World leading laboratory Spray Dryer

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

Encapsulator B-395 Pro
Gentle, sterile bead and capsule production

Rotavapor® R-300
Convenient and efficient rotary evaporation

www.buchi.com/spray-drying

Quality in your hands