Encapsulator B-395 Pro

For sterile microbeads and microcapsules

BÜCHI

Encapsulator B-395
Your partner for the production of microbeads and microcapsules

A quality product for the sterile encapsulation of cells, biological and active ingredients for laboratory-scale research and development work. The highly advanced technology enables particle production for numerous biotechnology and medical processes and other fields that require sterile conditions.

Aseptic
Sterile encapsulation of cells, microorganisms and active ingredients.

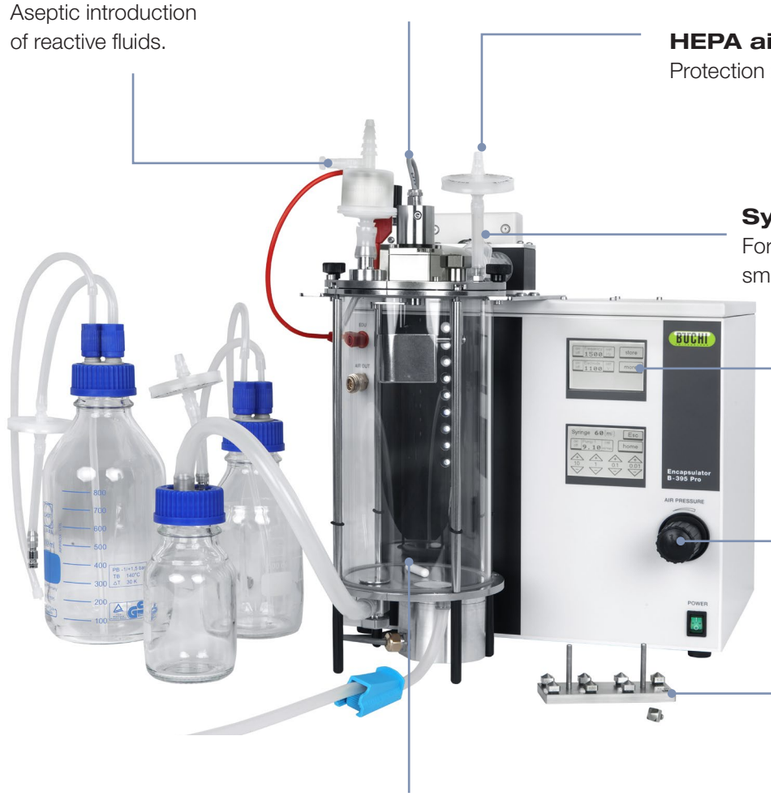
Reliable
Efficient, reproducible encapsulation process.

User-friendly
Intuitive to operate and easy to maintain.

Sterile filter
Aseptic introduction of reactive fluids.

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

HEPA air filter
Protection against contamination.



Syringe pump
For applications with small sample sizes.

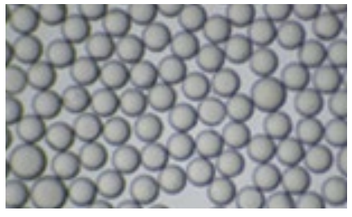
Control panel
Intuitive control of process parameters.

Pressure regulating valve
Precise control of pressure up to 1500 mbar.

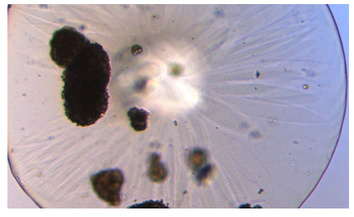
Reaction vessel*
Sterile working volume of 2 L.
*Also available with material certificates.

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

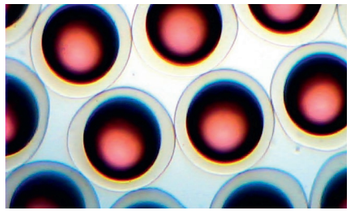
Application examples



PLGA beads with Ibuprofen

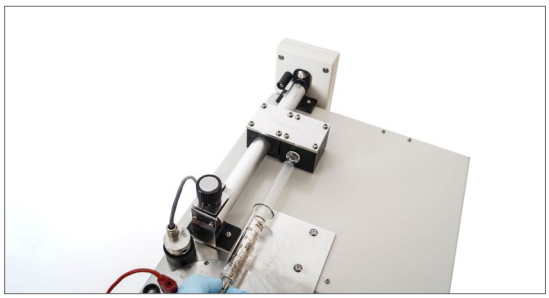


Encapsulated islet cells



Alginate capsules with oil core and red colouring

B-395 Pro:
Your most important benefits



Syringe pump
Easily calibrated syringe pump for low-loss feed of small sample quantities using sterile syringes of various volumes.

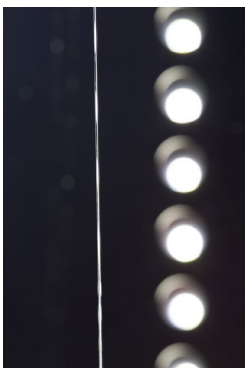
Material certificates
The reaction vessel for the Encapsulator B-395 Pro is available with material certificates for GMP documentation.

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

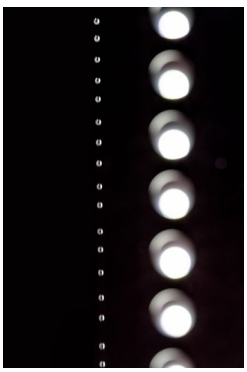
Air dripping nozzle
Nozzle system with airstream dispersal and minimized dead space, tailor-made for low-impact encapsulation of cell agglomerates.

Method of operation

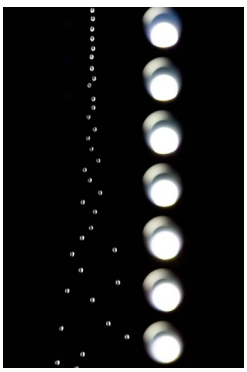
A laminar-flow fluid jet is subjected to a superimposed mechanical vibration, as a result of which it disintegrates into regular-sized droplets. They are then hardened by means of chemical or physical processes. Easy to achieve with the Encapsulator B-395 from BUCHI!



Generation of a stable fluid jet.



Generation of a stable, vertical droplet chain.



Electrostatic dispersal of the droplet chain.