

Encapsulator STARTUP

Your Successful Start in Micro-Encapsulation



The Encapsulator STARTUP from EncapBioSystems is a member of the new generations of Encapsulators based on the original Inotech Encapsulator design that provides easy sample optimization. The Encapsulator STARTUP offers you access to the technique of micro-encapsulation at a moderate price. This method of round, uniform bead production remains based on the proven principle that a laminar liquid jet is broken into equal beads when a vibration at the appropriate frequency is applied to the jet. The vibration frequency determines the quantity of beads produced, so at a vibration frequency of 700Hz, you will produce 700 beads per second.

Applications

Immobilization of enzymes, drugs, flavors & fragrances, dyes, cells and microbes. A wide range of hydrogel polymers are compatible with the Encapsulator Startup such as alginate, carrageen, cellulose sulphate, chitosan, gelatine and pectin, as well as waxes. Superior, uniform, solid beads may also be produced.

Key Features

- Reproducible Bead Formation in the range of 0.15 mm to 2.0 mm.
- High Bead Size Uniformity due to the integrated Electrostatic Dispersion Unit (EDU).
- Real Time Control and optimization of the bead production process by visualizing in the light of an integrated Strobe Lamp.
- User Friendly: The operation of the Encapsulator may be learned quickly and easily. Parameter setting is on touch screen and the Bead Producing Unit is made of stainless steel 316 L for easy cleaning and sterilizing if required.
- Batch Size of 30 ml to 500 ml with a dead volume of approx. 1 ml.
- Set of 8 Single Nozzles covers the bead size range of 0.15 mm to 2.0 mm with Nozzle sizes of 0.08, 0.12, 0.15, 0.20, 0.30, 0.45, 0.75 and 1.0 mm.
- Delivery of the polymer mixture by air pressure with flow rates from 70 ml/h (0.08 mm nozzle) to 2'500 ml/h (1.0 mm nozzle).
- Heating of the Bead Production Unit is incorporated. It is used for polymers having application temperatures above room temperature.
- Open System for non-sterile bead production, but aseptic conditions may be achieved in a laminar airflow hood.
- Optional: - Concentric Nozzle Kit for one step capsule production.

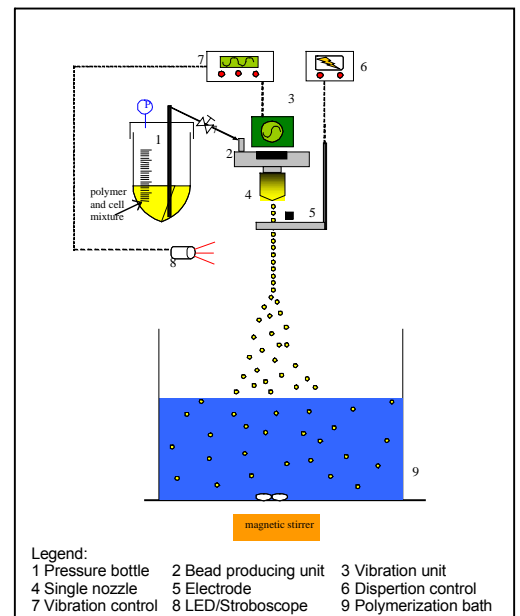
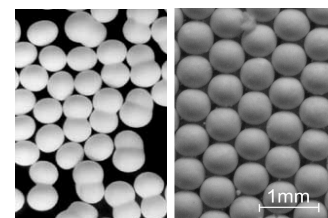


Diagram of Encapsulator STARTUP



Effect of Electrostatic Dispersion Unit (EDU) on bead uniformity.
Left: without EDU Right: with EDU