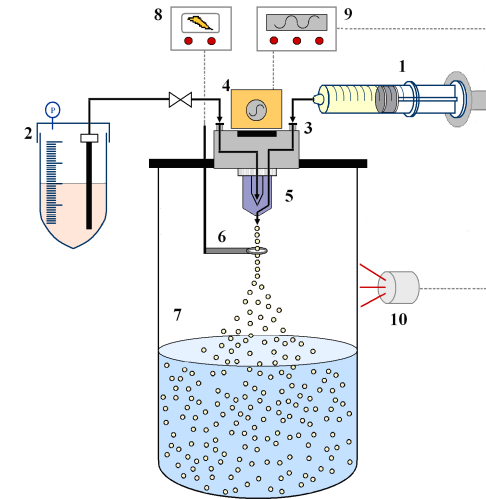


## Encapsulator Inotech IE 50R

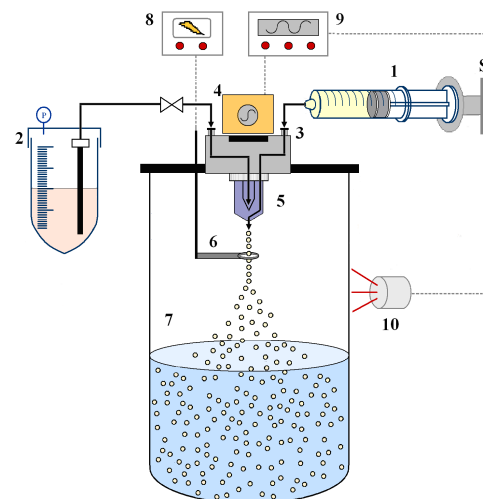


The production of beads with encapsulator Inotech IE 50R is based on the principle that a laminar liquid jet is broken into equally sized droplets by a superimposed vibration. It enables encapsulation of animal and plant cells, microorganisms, enzymes, drugs (liquid or solid), flavors and fragrances in beads or capsules. A wide range of hydrogel polymers are compatible with the Encapsulator Inotech IE 50R such as alginate, carrageen, cellulose sulphate, chitosan, gelatine and pectin.

- single nozzle or concentric nozzle (for co-extrusion method) kit with nozzle diameter 100 – 1500  $\mu\text{m}$
- reproducible bead formation (0,15 - 2 mm) with narrow bead size distribution
- high cell viability due to low shear stress during bead formation
- short production time (50 – 3000 beads/s)
- sterile working conditions in an autoclavable reaction vessel (when necessary)
- delivery of the shell/core phase by the integrated syringe pump or by air pressure (flow rates: 70-2500 ml/h)
- appropriate for low viscous liquids

**Location:** Department of Pharmaceutical Technology

## Enkapsulator Inotech IE 50R



Izdelava (mikro)kapsul ali pelet s pomočjo enkapsulatorja Inotech IE 50R temelji na principu razbitja laminarnega curka tekočine v enakomerno velike kapljice pod vplivom nihanja membrane. Aparatua je primerna za kapsuliranje živalskih ali rastlinskih celic, mikroorganizmov, encimov, zdravilnih učinkovin (trdnih ali v tekoči disperziji), arom in dišav v (mikro)sfere ali kapsule. Za tvorbo polimernega ogrodja oz. ovojnice lahko uporabimo raztopine različnih polimerov, kot so alginat, karagenani, hitosan, želatina in pektin.

- sistem z enojno ali koncentrično šobo (za metodo ko-ekstruzije), premer šob 100 – 1500  $\mu\text{m}$
- ponovljiva tvorba (mikro)kapsul oz. pelet (0,15 - 2 mm) z ozko porazdelitvijo velikosti delcev
- visok odstotek preživelih celic zaradi milih pogojev kapsuliranja
- hiter proces kapsuliranja (50 – 3000 kapsul/s)
- možnost dela v sterilnih pogojih; reakcijsko posodo, šobe in brizge lahko avtoklaviramo
- zunanjo in notranjo fazo dovajamo s pomočjo peristaltične črpalke ali kompresorja (pretok: 70-2500 ml/h)
- primeren za niskoviskozne tekočine

**Lokacija:** Katedra za farmacevtsko tehnologijo