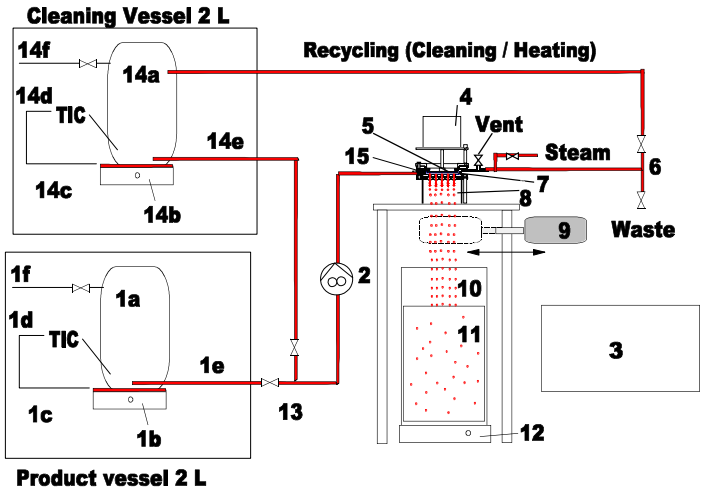
VAR E THERMAL: SHORT PRODUCT DESCRIPTION

Overview



Legend

1a	Stainless steel vessel (max. 6barg)
1b	Magnetic laboratory agitator with agitation element
1c	Heating plate
1d	Temperature controller with pT 100
1e	Heatable hose(electrical heating)
1f	Two nozzles for pressurising and for filling
2	Feed pump (option)
3a	Control cabinet for vibrator
3b	Control cabinet for heating
4	Vibrator
5	Pulsation chamber with membrane
6	Connection for vent, steam, waste and recycling
7	Nozzle plate
8	Sightglass with stroboscopic light
9	Bypass system
10	Vessel with hardening solution
11	Hardening solution with beads (for information)
12	Laboratory stirrer
13	Heatable hose for transfer
14a	Stainless steel vessel (max. 6barg)
14b	Magnetic laboratory agitator with agitation element
14c	Heating plate
14d	Temperature controller with pT 100
14e	Heatable hose(electrical heating)
14f	Two nozzles for pressurising and for filling
15	Electrical heating for encapsulator head

Short Description

The encapsulation unit is best suited for the generation of microbeads using matrices, where gelling is based on interfacial coacervation (e.g. alginate, carrageenan and the like). With the heatable feeding equipment you can use encapsulate melts with temperature up to 120°. Which of these, or any other matrix might suit your specific needs, depends on what you want to encapsulate (e.g. proteins or bacteria), what properties the beads should have (physical strength, permeability, edibility, and so on) and which regulations and guidelines you have to follow (Hygienic Guidelines for Food, FDA etc.).

Principle

A pressurized tank is used to generate a steady pulsation-free flow to the vibrating chamber. As an alternative, you can use a heatable, pulsation-free transfer pump. The bead generating unit has 13 nozzles. The vibration is superimposed on the product feed in the vibrating chamber by means of a membrane (frequency and amplitude can be adjusted digitally). The generated drops can be observed by means of an LED-stroboscopic light as stationary chains of parallel drops. The stroboscopic light is automatically synchronised with the adjusted vibration frequency. Monodisperse beads of the size between 0.2 and 1.5mm can be generated.

Control Cabinet for Vibrator

- ☒ Rack with display, four lines x 16 characters, programmable micro controller for vibration control and stroboscopic light
- ☒ Power supply between 110 V and 240 Volt, automatically adjusting

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