DATASHEET

FLUIGENT
SMART MICROFLUIDICS

DOUBLE EMULSION PRODUCTION STATION

Product description

P/N: O-DE-STD-PCK

FLUIGENT

DESCRIPTION

The Fluigent double emulsion production station is a robust and a complete system for producing outstanding monodispersed double emulsion in one single device.

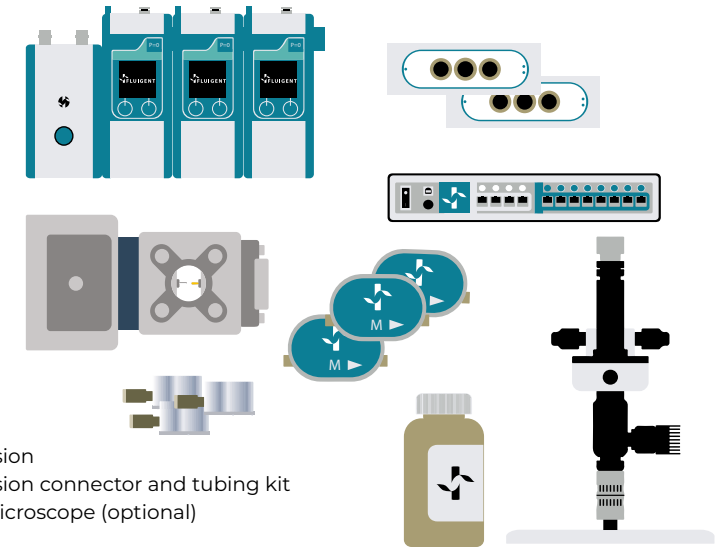
Its performance results from the combination of Fluigent's LineUP microfluidic pumps and the RayDrop device, a breakthrough technology for highly monodispersed and stable double emulsions.

Advantages & Benefits

Monodispersity **Consistency** **Flexibility & Versatility**

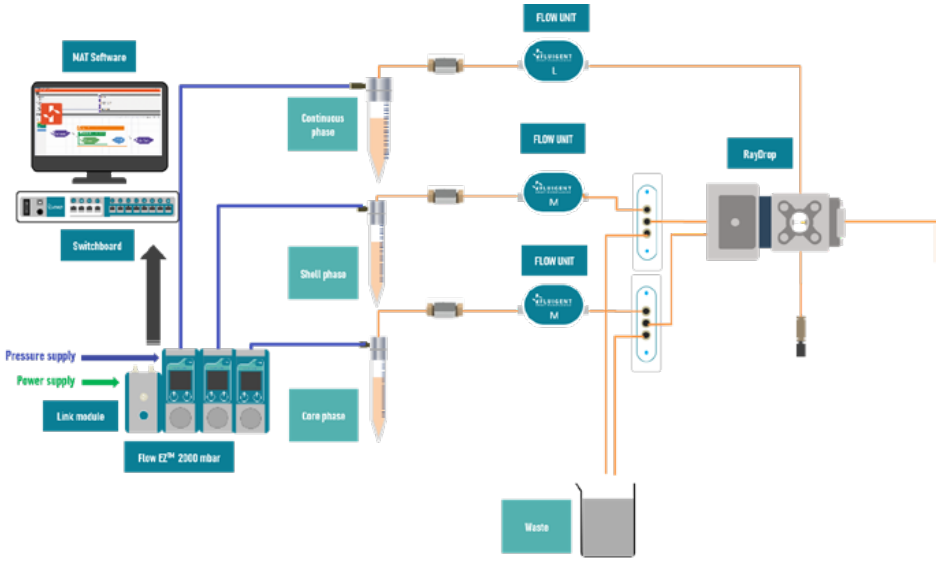
- Perform double emulsion in one single device
- No surface coatings needed
- Flexible: can generateboth water-in-oil-in-water and oil-in-water in-oil droplets
- No surfactant needed for droplet formation
- Up to 5 000 Hz droplet generation rate *
- Double emulsion size range from 70µm to 150µm diameter
- Easy to clean, exchangeable nozzle
- No leakage, uses standard HPLC PEEK connectors

Content



3*FlowEZ 2 bar
1*Link
1*Flow EZ supply kit
2*Pcap 50 ml
2*Pcap kit 50ml
1*Pcap 15ml
1*Pcap kit 15ml
2* Flow unit M
2*Low flow rate kit
1* Flow unit L
1*High flow rate kit
2*2-switch
2*2-switch kit
1*SwitchEZ
1*Raydrop double emulsion
1*Raydrop double emulsion connector and tubing kit
1 * Digital high-speed microscope (optional)
12 mL dSURF (optional)

SET-UP OVERVIEW



SETTING-UP THE STATION

Please refer to the Double emulsion protocol

TECHNICAL SPECIFICATIONS

Chip characteristics	Co-flow focusing design
	3 inputs, 1 output
	Water-in oil-in-water and oil-in-water-in-oil double emulsion
Double emulsion size*	Shell: from 70 to 150 µm
	Core: from 20 to 120 µm
Monodispersity	CV <2%
Generation rate	5 000 Hz (measured for the smallest double emulsion size) can go higher under specific conditions
Capillaries dimension	Nozzle: Core: 30 µm ID
	Shell: 70 µm ID
	Output: 150 µm ID
Wetted material continuous phase	PEEK, FEP, glass, stainless steel 316L, polyimide, Viton (seal), resin (nozzle)
Wetted material dispersed phase	PEEK, FEP, Glass, resin (nozzle)
Fluids compatibility	Water, mineral oil, fluorinated oil, ethanol, ethyl acetate, IPA, Acetone, acid (ph>5), tetrahydrofurane

TECHNICAL SPECIFICATIONS (CONTINUE)

FLOW CONTROL	
Pumps**	Fluigent Flow EZTM (2000 mbar)
Flow sensors**	Fluigent FLOW UNITs (M and L)
Automated valves**	Fluigent 2-SWITCHTM

IMAGING	
Microscope	Fluigent Digital high-speed microscope

SOFTWARE	
Live control	Fluigent A-iO
Automated control	Fluigent MAT
Imaging	Pixelink Capture Software

**Depends on fluids physical properties*

***For detailed specification: download LineUP User Manuel, ESS User Manuel.*

CONTACT

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