

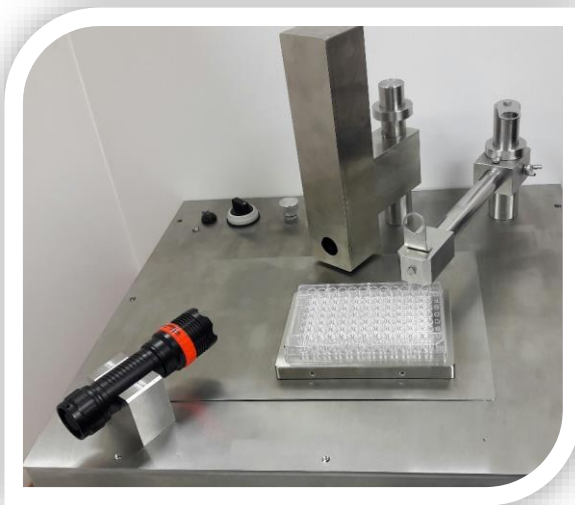
## Microfluidic Drop-On-Demand System (S-Droplet SDOD 1000)

Microdroplets have well defined shape, predetermined compositions. Their small size, low mass and potentially high-throughput formation are the enabling features for the bio-encapsulation and pharmaceutical screening applications. Conventional drop-on-demand systems suffer from tedious cleaning/sterilization process and longer change-over time. In those systems, the concern of contamination is extremely unacceptable when the produced droplets are for biomedical usage.

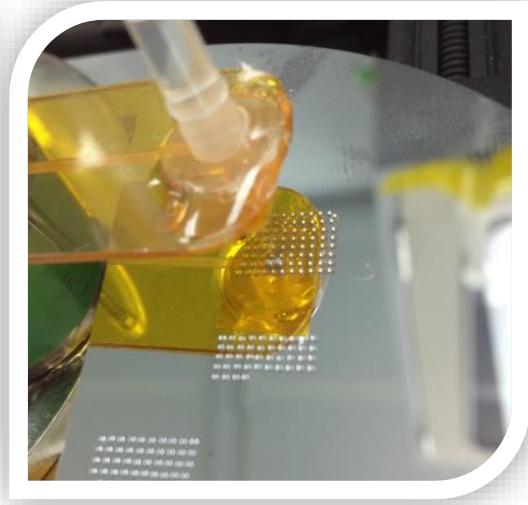
The microfluidic drop-on-demand system (S-Droplet SDOD 1000) leverages the advantages of microfluidics to integrate a disposable chip for droplet generation. The low cost, disposable and contamination-free chips form the core of the system, and are made from plastic through an injection molding process. The system is able to generate highly uniform sized droplets for microarray applications. The system was built following Good Manufacturing Practices (GMP) and European Pharmacopeia Standards (EUP).

### Product Features:

- System can be put and operated in Biosafety Cabinets;
- Two types of operation modes, fluid supplied by on-chip container or pressurized container;
- As small as 100  $\mu$ l solution needed for droplet array formation;
- Fully computer controlled program;
- Integrated camera for droplet formation setup;
- Process parameters printing at real time with optional Printer;

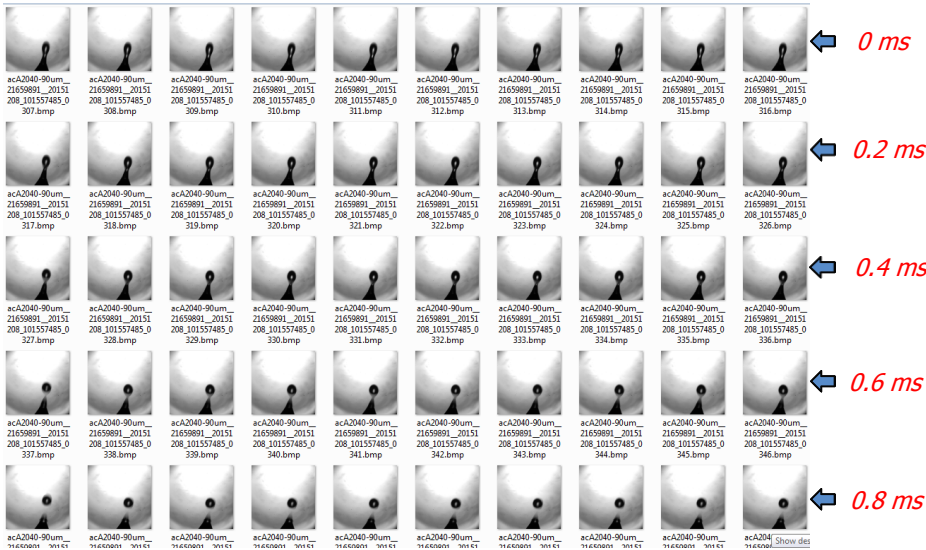
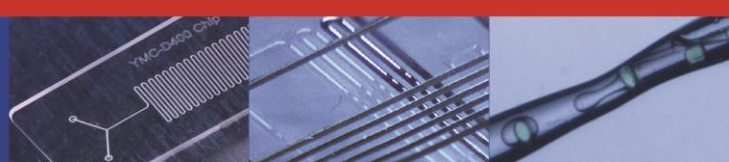


Drop-On-Demand System (SDOD 1000)



Droplet array patterning





Capture of the formation of 10 different droplets at each pre-set time delay after droplet formation triggering

- Highly repeatable droplet formation process captured by integrated camera

## General Specifications

Overall	
Dimension (L x W x H)	~ 500 mm x 500 mm x 400 mm (LxWxH)
Weight	~20 kg
Working Temperature	25 - 37°C
Voltage	115/230 VAC, 60/50Hz
Power	~ 100 W
Hardware Interface and Setting	
Interface to Computer	USB and Ethernet cable
Integrated camera	Program controlled
Droplet Formation	
Dispensing method	Non-contact, drop-on-demand
Array formation area	100 x 60 mm
Minimum solution volume needed	100 µl
Minimum droplet diameter	500 µm
Minimum drop-to-drop gap	300 µm (scalable)
Minimum distance per step of XY stage movement	7.5 µm
Pressure control accuracy	~10 Pascal
Available flow exit Diameter	250 µm

## Contact Us

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