


Droplet Microfluidics Workstation (Retired, but open to suggestions)

Droplet Workstation

Tool Type: Microfluidics
Location: Microfluidics Lab
Description: Droplet microfluidics workstation
Manufacturer: Micronit, Fluigent, Zeiss

About

The Droplet Microfluidics Workstation comprises a Micronit chip holder, an assortment of Micronit droplet generation chips, syringe pumps, and Fluigent pressure driven flow components and an inverted microscope. Users can configure these tools to generate small liquid droplets.

Safety Concerns

- Keep hands, hair, and loose clothing away from moving parts
- Prevent liquids from entering electronics
- Use on an even surface

Operating Procedures

The setup includes the following Fluigent pressure and flow controllers MFCS-EZ #1 for positive pressure

Ch1 0-69mb
Ch2 0-345mb
Ch3 0-345mb

MFCS-EZ #2 for vacuum

Ch1 -69 - 0mb
Ch2 -345 - 0mb
Ch3 -345 - 0mb

Flow controller and the following flow meters

XS 0-1.5 $\mu\text{l}/\text{min}$
M 0-80 $\mu\text{l}/\text{min}$
XS 0-80 $\mu\text{l}/\text{min}$
XS 0 - 5 ml/min
XS 0 - 5 ml/min

Detailed Specifications

We have the following Micronit droplet generators and chip holders in stock

- FC-PRO-CH4515, Fluidic Connect Pro w 4515IN Chip holder
 - FC-FFDG.2.50_PACK, Focussed flow droplet generator chips
 - FC_FFDDG.2_PACK, Focussed flow droplet generator chips
 - FC_TSDG.2_PACK, 3 T shaped droplet generator chips
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Reference Documentation

[FLOW-RATE PLATFORM SOFT FRONT PANEL Users Manual](#)

[FLOW RATE PLATFORM Users Manual](#)

[ESS Platform Users Manual](#)

[Maesflo Users Manual](#)

[Droplet Junction Chips Datasheet](#)

[MFCS Microfluidic Flow Control Users Manual](#)

[Flow Unit Inventory](#)

[Droplet Generator White Paper](#)

[Micronit Catalog](#)

[Micronit Quick Start](#)

[Fluidic Connect Pro Quick Start](#)

[Fluidic Connect Pro Handout](#)

[Fluidic Pro Catalog](#)

[Micronit Stock](#)

[Syringe Pump Quick Start](#)

[Reynolds and Peclet Number Effect on Flow Mixer](#)

[Cellix tips for resolving droplet generation challenges](#)

[Darwin Microfluidics review of hydrophilic and hydrophobic coatings for droplet generation](#)

[Darwin Microfluidics recommendations for choosing oils for droplet generation](#)

[Darwin Microfluidics chip cleaning recommendations](#)

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