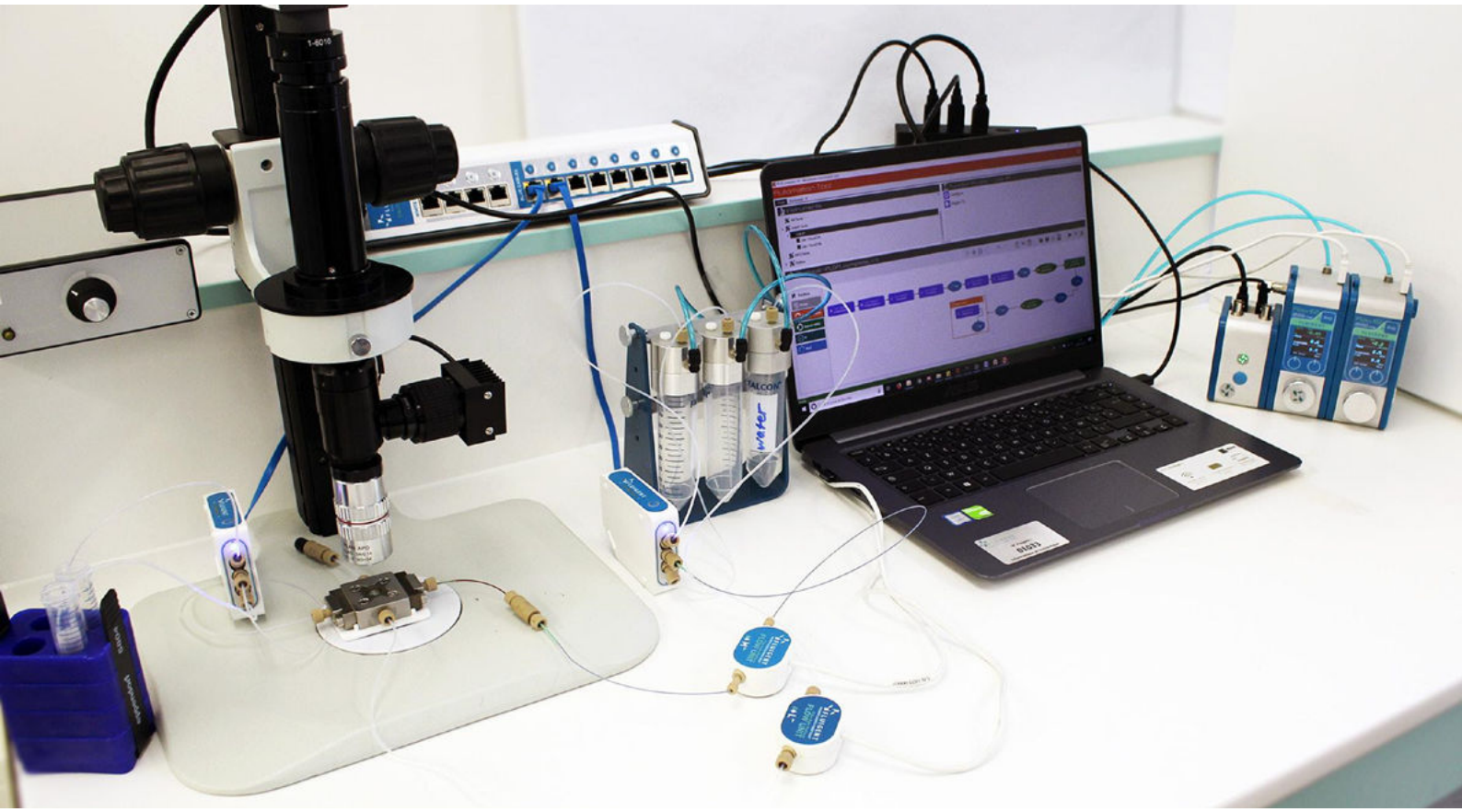
DATASHEET

FLUIGENT
SMART MICROFLUIDICS™

LIPOSOME NANOPARTICLES PRODUCTION STATION

PRODUCT DESCRIPTION

P/N: O-MIX-LIPO-PCK

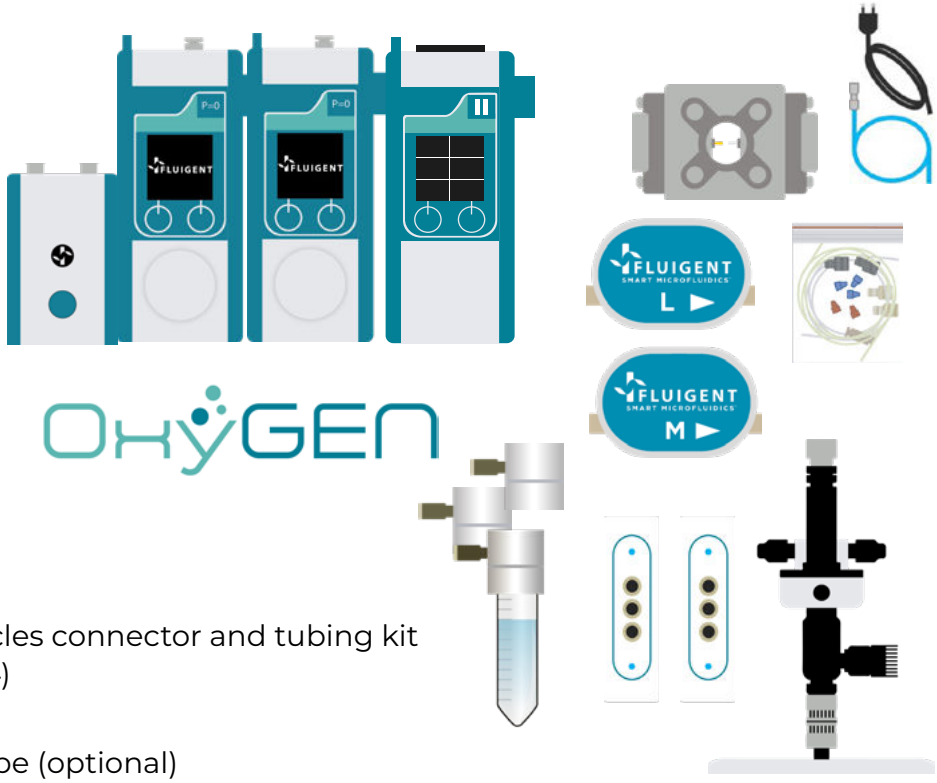


The Fluigent liposome nanoparticle production station is a robust and a high-quality system for precisely control the production of monodisperse Liposome nanoparticles with high flexibility in changing particle sizes production. Its performance is coming from the combination of Fluigent's LineUP microfluidic pumps and the RayDrop device, a breakthrough technology for high-quality particles production.

DESCRIPTION

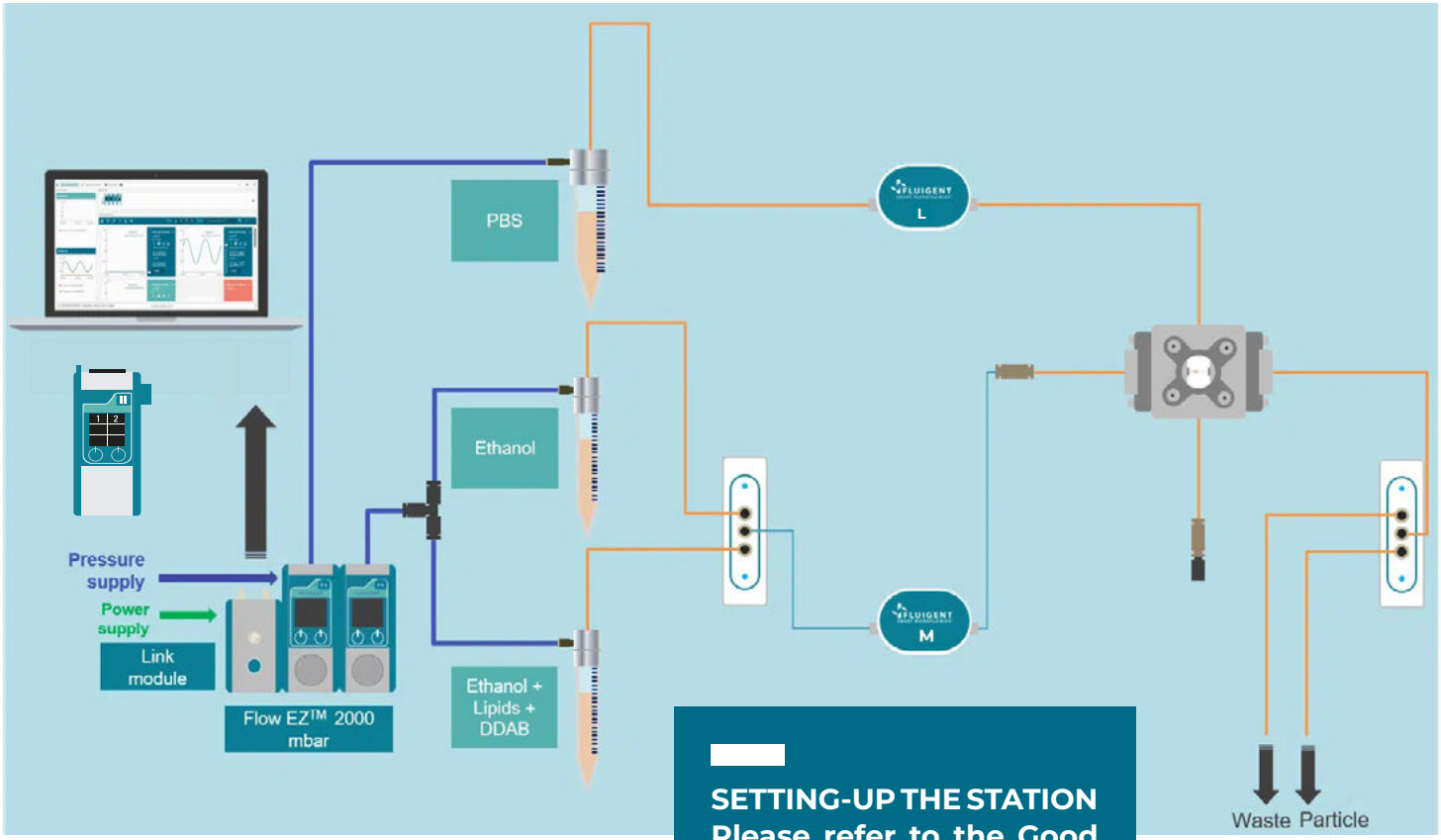
The **Fluigent liposome nanoparticle production station** is a **versatile** system for the production of **monodisperse Liposome nanoparticles with high flexibility, allowing for particle sizes over the range of 30-150 nm.**

CONTENT



2 * Flow EZ™ (2000 mbar)
1 * Link
2 * FLOW UNIT (M and L)
3 * P-CAP (3* 15ml)
2 * 2-SWITCH™
1 * SwitchEZ
1 * RayDrop™
1*Lineup supply kit
1*Low flow rate kit
1*High flow rate kit
3*Pcap 15ml kit
2* 2-switch kit
1* Raydrop liposome nanoparticles connector and tubing kit
Inline filters (x2) and fittings (x4)
OxyGEN Software

1 * Digital high-speed microscope (optional)



SETTING-UP THE STATION
Please refer to the Good Practice Guide

TECHNICAL SPECIFICATIONS

LIPOSOMES PRODUCTION	
Inner phase	Absolute ethanol + Lipids 10 mg/ml+ Dimethyldioctadecylammonium (DDAB) 2.5 mg/ml
Outer phase	Phospate-buffered saline (PBS) (pH 7.2)
Particle size range*	30nm to 150 nm
Polydispersity*	From 7% to 15%

FLOW CONTROL	
Pumps**	Fluigent Flow EZ™ (2 bar)
Flow sensors**	Fluigent FLOW UNIT (M)
Automated valves**	Fluigent 2-SWITCH™

SOFTWARE	
Live control & Automated control	Fluigent OxyGEN Software
Imaging	Pixelink Capture Software

IMAGING (OPTIONAL)	
Microscope	Fluigent Digital high-speed microscope

* Depending on FRR (download the Liposome nanoparticle production application note for more information)
**For detailed specification: download LineUP User Manuel, ESS User Manuel.

	Batch Method	Fluigent microfluidic method
Particle Size distribution	Low	High
Encapsulation efficiency	<30%	100%
Reproductibility	Low	High
Live particle size control	No	Precise
Range of particle size	Limited size range	Wide size range
Continuous production	No	Yes