

Additional Modules

Deliver Continuous, Closed, Single-Pass Operation

While the DIANT® nanoparticle production systems deliver revolutionary particle size, uniformity, and quality control, its companion process analytical technology, filtration, and controlled modification technologies create a truly continuous manufacturing

Lipid Nanoparticles (LNPs)

Liposomes

Nucleic Acid/Lipid Complexes

Polymeric Micelles

Suspensions

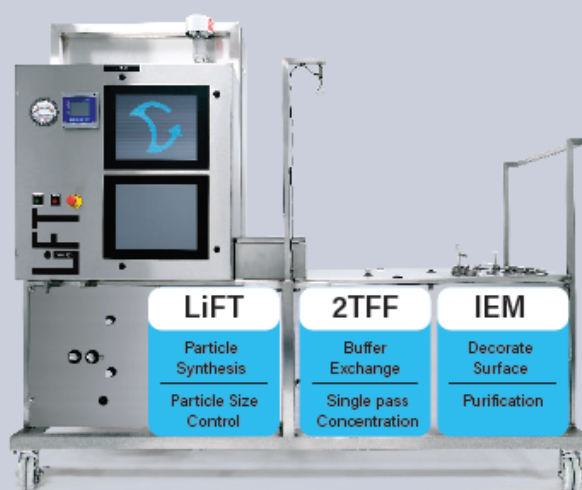
Inline Filtration

DIANT® 2TFF – Modulated TFF

This multi-stage, modulated tangential flow filtration system uses proprietary DIANT® technology to reduce biofouling. It connects directly with the particle synthesis stage for continuous or standalone operation. The DIANT® LARU 2TFF is scalable to the DIANT® LiFT production series, enabling seamless progression to commercial production

DIANT® LARU Specification Overview

Output Flow, Retentate	160 mL/min (max)
Input Flow Rate	400 mL/min
Concentration Factor	10x (nominal)
Dilution Factor	10x (nominal)



Continuous, Single-Pass Operation
DIANT® LiFT with Inline PAT, 2TFF & IEM

Inline Process Analytical Technology

The ground-breaking InProcess-LSP NanoFlowSizer™ SR-DLS offers a non-invasive nanoparticle size maintenance system with a custom-integrated particle size analyzer and pH monitoring, conductivity, and temperature control monitoring capabilities

Temperature

Control the temperature of your sample by adding a water circulator

Inline Controlled Modification of Pre-formed Vesicular Nanoparticles

The DIANT® IEM is a continuous processing system for the controlled modification of pre-formed vesicular nanoparticles, including:

Intravesicular aqueous modifications

small molecules like liposomes can be actively loaded to promote drug encapsulation

Extravesicular surface modifications

capabilities include adding polymeric coating and active drug moieties