NANO me

More batches. Less complexity. Total confidence.

Industry's first pumpless, fully disposable cassette-based equipment for nanoparticle manufacturing.



FR-JET® Technology | Pump-free design | Single-Use Cassette | Simple Plug & Play | NO cleaning

NANOme® GMP system with our superior FR-JET® modular mixer, redefines rapid back-to-back nanoparticle manufacturing

— Up and running in minutes, not shifts

No training curve, no manual assembly. The preassembled flow path drops in and you're producing - so your team's time goes into output, not setup

— Skip cleaning validation

Every liquid-contacting surface lives in the single-use cassette, removing one of GMP's most time- and paperwork-heavy steps from your batch cycle.

— Sterility you don't have to police

A closed, pre-sterilized flow path with aseptic connectors means contamination risk is engineered out, not managed through extra procedure

— Every milligram counts

System dead volume under 30 mL means your formulation goes into product, not into the machine - critical when your input material is precious.

— Clinical-scale output on a bench-scale footprint

Up to 600 mg of RNA per batch, with a new batch ready every 20 minutes - enough throughput to supply trials without a commercial-scale build-out.

— Consistency by design, not by monitoring

A pressure-based flow system, no peristaltic pumps, delivers stable particle formation without pulsation-driven batch to batch variability .

— Deploy anywhere you need it

Compact enough for any lab, making decentralized or point-of-need manufacturing a real option, not just a concept.

— Audit-ready from day one

CFR 21 Part 11 and GAMP 5 compliant software gives you built-in data integrity and traceability for every batch.

— Zero re-development risk

Move from NANOscreen® and NANOlab® to GMP manufacturing in a single step - the same process, none of the re-optimization delay that usually stalls a CMC timeline.

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LEON ENABLING NANO NOW

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SINGLE USE AND SIMPLE TO USE

Benchtop device for GMP nanoparticle production

SYSTEM	
Description	Pumpless system for processing fluids in disposable kits for aseptic nanoparticle manufacturing under GMP.
Scope	Aseptic manufacturing of pharmaceutical nanoparticle formulations intended for clinical batches and small- to mid-sized commercial batches
Dimensions	45 cm × 70 cm × 90 cm (145 kg)
Features	– Automated system with touchscreen operation – Export function via USB outlet for process parameter logs – Storage of pre-written formulation protocols and process data tables – 21 CFR Part 11-compliant software (option for remote software updates) – Designed for aseptic production in Grade C cleanrooms – No need for system cleaning between batches (including product changeover)
Operation parameters	– Flow rates - inlet A: 10 - 160 mL/min, inlet B: 5 - 80 mL/min (flow stabilizes in <4 seconds) – Reactor configuration adapted for seamless process transfer from NANOlab® – Pressure rating ≤ 16 bar
Output	– Maximum total flow rate: 200 mL/min (assuming typical FRR 3:1 for LNPs) – Maximum product volume: approx. 1.5 L

DISPOSABLE KIT	
Description	Disposable kit to be used with the NANOme® apparatus
Features	– Sterile fluid path with closed design for GMP aseptic manufacturing – Ready-to-go kit: pre-assembled, triple-packaged & gamma-sterilized – Kit includes bioprocessing bags, with detachable product bag for downstream processing – Built-in aseptic connectors & disconnectors for maintaining a closed-loop workflow – Built-in sterile sampling feature for Quality Control – Easy handling, secure transport, and risk-free mounting and unmounting within seconds – Minimal internal hold-up volume to minimize material loss (<30mL) – Option to select between in-line or pre-filled in-bag dilution – Filling aid prop for easy handling during the filling operation (included)
Note	*Filling of single-use bags requires external pump, syringes, or similar equipment and in-line dilution requires an external pump (not included)*

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