NANO lab

More flexibility. Smaller batches. Direct GMP transfer.

Benchtop system for process development and non-clinical studies.



FR-JET® Technology | Batch & Continuous | From 1mL Batches | Direct GMP transfer | Non-GMP

KEY BENEFITS

— One system covers your full development range

From early screening through scale-up studies, NANOlab®`s broad flow rate window means you're not switching platforms as your program matures.

— Every hour of development work carries forward

Parameters you optimize here move straight to GMP manufacturing - no re-validation, no repeated studies, no wasted development time.

— Online monitoring of key process parameters leaves no doubt

Internal flow and pressure sensors give you real-time confirmation of key process parameters, so your data reflects the conditions you actually set.

— In-line dilution

Dilute in-line as part of the process, reducing hands-on time and a common source of variability between batches.

— Match the format to the experiment, not the other way around

Switch between small-volume sampling and continuous operation as your study design demands, without changing systems.

— Build institutional knowledge, not one-off runs

Save and recall process parameters across studies and team members, so past formulation work informs the next one.

— FR-JET® Technology. Your mixer. Your choice.

High-frequency screening campaign? Switch to reusable metal FR-JET® mixers and eliminate per-run costs entirely. Prefer convenience? Extended single-use mixers are always available. Same instrument, same mixer geometry, same results - no compromise either way.

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LEON ENABLING NANO NOW

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REVOLUTIONIZING NANOENCAPSULATION

Technical data

Scope	Non-clinical pharmaceutical nanoparticle formulations*
Features	– FR-JET® modular mixer (e-useable stainless steel or extended single-use polymer) for mixing two solutions – FR-JET® system offers a combination of pinholes, cores and outlets to tune the process – Flow-controlled feed of starting material streams using microgear pumps with low internal volumes – Customizable protocols for automated process runs – Export function for process parameter logs (flow rates, total flow, pressure)
Operation parameters	– Flow rate of single pump: 3-250 mL/min – Total flow rate: 6-500 mL/min (FRR 1:1)** – Pressure rating ≤ 40 bar – Samples can be dispensed automatically (≤1 mL, applicable at low TFRs only) – Minimized waste volume – Compatible with typical oils, some silicones, soft pastes, or thin honey-like viscous substances
Output	– Minimum product volume: starting at 1 mL – Maximum product volume: N/A (continuous operation mode)
Connections	– 1/8"ISO

* Optional GMP use is possible, please contact our team to learn more
** Total flow rate ranges vary with reactor configurations

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SCAN ME