

NANOlabor

High Precision, Nanoliter-Scale, Freedom at Every Step.

The NANOlabor is a high-precision liquid handling system engineered for advanced genomics workflows that demand ultra-low-volume accuracy. Using disposable pipette tips to aspirate and dispense nanoliter-scale volumes, it delivers contamination-free operation and highly consistent results, ideal for NGS, PCR setup, library preparation, and other sensitive applications.

Powered by advanced robotics and intuitive software, the platform supports high-throughput processing, flexible workflow configuration, and true walk-away automation.

Its precise nanoliter control minimizes reagent consumption while safeguarding the quality and integrity of low-abundance or fragile samples.



NANOlabor Dispensing Platform

Features & Benefits

- Versatile automated solution to help accelerate streamlined workflows.
- Configurable dispensing including fixed and disposable tips to support a dynamic range of applications.
- Nanoliter range disposable tips to eliminate cross-contamination and reduce reagent consumption and cost.
- Compact Design.
- Intuitive Powerful Software.
- Configurable nests for printing onto slides, plates, and microfluidic devices.
- Mechanical precision: X, Y, Z $\leq 0.03 \mu\text{m}$.
- Automated disposable tip mount and ejection.
- Advanced Vision System.
- Integrated Wash/Vacuum Station.
- PC Control Workstation.
- ILD5000 In-Line Degasser.
- Integrated Humidity Chamber.
- Aspirate and Dispense or Bulk Dispense.

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General Specifications

Weight

- 300 lbs (8 channel disposable tip configuration).

Dimensions (L x W x H)

- 52" x 26.25" x 27.8"

Nest size/Dispense area

- Nest size: 18.6" x 19.25"
- Dispense area: 19.7" x 15.75"

Power Requirements

- 110/220 VAC; 50/60 Hz.

Line Pressure Requirement

- Clean Dry Air: 45 PSI Minimum.

Dispense Head Options/Configurations

- Disposable tip channels: 8, 4, 1.
- Fixed ceramic tip channels: 8, 4, 1.
- Combination: 4 disposable tips, 1 fixed ceramic tip.

Nest Options/Configurations

Disposable Tip Deck Options

- Mixed Deck (MTP, slides, datum).
- MTP only (8 sites).
- Glass slides only (8 sites, 4 slides per site).
- Datum only (8 sites).

Fixed Ceramic Tip Deck Options

- MTP only (9 sites).
- Glass slides only (9 sites).
- Datum only (9 sites).

Specifications for Disposable Tip

Disposable Tip Specifications

- Sterile and Non-Sterile versions.
- 50 nL-200 nL.
- Orifice Diameter: 190 μ m.

Dispensing Modes

- On-the-Fly.
- Step-and-Repeat.

Specifications for BioJet Fixed Ceramic Tip

Fixed Tip Specifications

- 3 nL-2 μ L at < 5% CV.
- Orifice Diameter: 190 μ m and 100 μ m.
- Reagent Viscosity < 10 cP.
- Bulk Dispense, Aspirate and Dispense.