

PHOENIX

Liquid Handling System

- High Throughput Screening
- Genomic Solutions
- Protein Crystallography



The Phoenix is a multiposition, high-throughput liquid-handling platform used around the world that incorporates a space-saving design with flexible dispensing options. The competitively priced Phoenix provides increased efficiency and cost-effectiveness. It is designed to meet the demanding requirements of protein crystallography, high throughput screening and genomics laboratories. This unique instrument combines the precise low-volume dispensing capabilities of a syringe head with an on-the-fly non-contact nanodispenser.

The Phoenix accomplishes fast, efficient liquid handling by moving air-tight seals inside 96 or 384 precision glass syringes arrayed in microplate spacing. The innovative design of the Phoenix dispensing head allows users to easily remove the entire syringe head for servicing or for changing to a different syringe style. An operator can change syringe heads in minutes, without the use of any tools.

The removable head design enables users to optimize the configuration of the Phoenix for a specific application by installing the proper dispensing head. The 96-syringe head is available in 100, 250, 500, 1000 μ l with flexible needles - or choose the 384 head with flexible needles.

Easy-to-learn and easy-to-use graphical interface features drag-and-drop protocol creation and real time protocol validation. The Windows-based software allows for user control of all parameters to optimize sample dispensing. Plates can be easily selected from the plate library, or new plates can be quickly defined.

Phoenix features:

- Nine assay positions: 6 source or destination plate positions, 2 reagent positions, 1 wash station position.
- 96 or 384 channel positive displacement syringe heads with flexible needles.
- Head volumes of 100, 250, 500, 1000 µl. Dispense volumes down to 100 nl.
- Optional non-contact nano-dispenser drive: can accommodate 1, 2, 3, or 4 channels to deliver volumes as low as 100 nl.
- Nano dispenser can be used in aspirate/dispense or bulk dispense modes.
- Bench-top lab use: footprint of (w x d x h) 25 x 27 x 29" (63,5 x 68,6 x 73,6 cm).
- Windows-based drag-and-drop software.
- Closed-loop motion control on each axis: verification of task completion via encoders on each motor.

Phoenix specifications:

- Dispense volumes:

96 Head:	100 nl to 1000 µl
Nano:	100 nl to 100 µl

- Size:

Base (h x w x d):	29 (73,6) x 25 (63,5) x 27 (68,6) in (cm) 142 lbs, 64,4 kg
Wash (h x w x d):	13 (33) x 6,5 (17) x 14 (36) in (cm) 5,5 lbs, 2,5 kg
Nano (h x w x d):	9,5 (24) x 6 (15) x 16 (41) in (cm) 18,5 lbs, 8,4 kg

- Electrical:

Base:	120/240 Vac, 3 A, 50/60 Hz
Wash:	120/240 Vac, 2 A, 50/60 Hz
Nano:	120/240 Vac, 1,5 A, 50/60 Hz

- Software:

Windows dotNet



Please note also available are:

The "**Gryphon**" with 2 plate positions and dispensing head for 96 or 384 flexible needles.
Optional non-contact 1-channel dispenser.

The "**Cobra 148**" with 2 plate positions and 1-, 4-, or 8-channel dispenser.

The refurbished "**Hydra**" - for high-speed aspirating and dispensing of finite volumes.

Further details upon request.