Oryx8

- Only 9.79μl of protein to set up a 96-well plate
- 7-channel optimization
- Multi-component pH control
- Use any single or multi-drop plate
- Additive screens
- Sitting drop and Microbatch screening

Oryx8 quickly and accurately dispenses vapor diffusion drops from pre-dispensed reservoirs into sitting drop wells of all high quality vapor diffusion trays, including multi-drop plates. Protein is added at the same time using our unique multi-bore dispensing technique.

A new sliding evaporation shield provides extended protection for nanodrops and multiple drop vapor diffusion screening experiments. Microbatch experiments are automatically covered with oil within seconds of being dispensed.

Our suite of software includes packages for screening and optimization. It provides easy-to-use interfaces for setting up screening experiments and virtually effortless design of complex multivariate optimization experiments. Algorithms calculate and control pH for any number of buffer species; this provides precise control and knowledge of experiment pH.
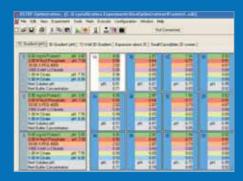
Fast, parallel dispensing of all components of optimization experiments deliver up to 384 microbatch wells per hour, automatically covered with oil with no further requirement for sealing.

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Oryx8 specification

Front Panel control software.
When valves need to be turned etc. instructions are given with diagrams.

7-Channel XStep optimization.
The stock solutions are shown on the left.
Each cell corresponds to one well on the target plate.

General

Crystallization methods	1. Sitting Drop
	2. Microbatch
Computer requirements	Windows 2000 / XP

Vapor Diffusion Method

Volume of droplet	0.2 to 10 µl
Plates accommodated	All high quality plates can be used
Number of wells dispensed	1 to 96x3

Microbatch Method

Volume range of crystalisation trial	0.2 to 10 µl
Volume of protein dispensed per trial	0.1 to 10 µl
Number of trials set up per run	1 to 192 (or more)
Number of solutions dispensed in each trial for optimization	1 to 7 (including water)

Microtips

Number of bores	7, 5, 4, 3 or 2
Cross - section of microtip at tip	0.45 - 0.95mm
Internal diameter of each bore	100 µm - 475 µm
Dead volume	Zero
Material	Water repellent fluoropolymer

Universal Syringe Driver

Number of discrete steps for syringe volume	More than 44,000
R.M.S. error per step	+/- 8%
Nominal maximum error per step	16%
Nominal maximum cumulative error over complete linear displacement	2 steps

Automatic XYZV Plate Loader

Linear displacement of table:

Travel, first horizontal axis (X)	321 mm
Travel, second horizontal axis (Y)	151 mm
Travel, first vertical axis (Z)	52 mm
Travel, second vertical axis (V)	52 mm
Nominal maximum cumulative error over complete linear displacement	0.1 mm
Length required on bench	670 mm
Depth required on bench	610 mm

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