innovadyne Technologies, Inc.

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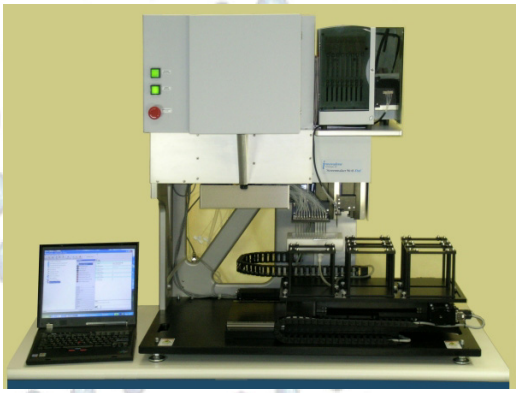
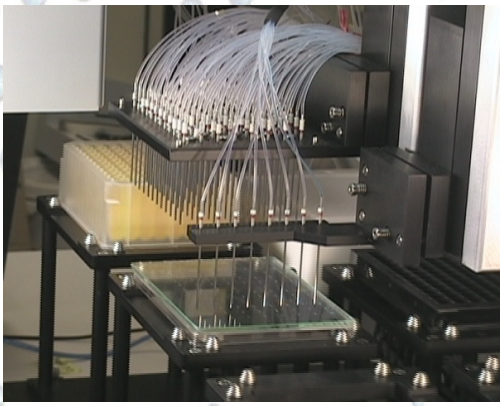
leading the way in high-precision dispensing

Screenmaker 96+8 Xtal





The **Screenmaker 96+8™ Xtal** liquid handler is a top-of-the-line fully automated system for protein crystallography. The low volume, non-contact dispensing and fast cycle time requirements of high-throughput protein crystallography are an excellent fit for Innovadyne's technology.

For sitting drop and hanging drop diffusion protocols, available commercial screens can be transferred to crystal plates through the combined use of syringe dispense technology and non-contact dispense technology. Transferring the mother liquors to the drop chamber or hanging drop plate, followed by addition of the protein of interest using a single channel of the 8-channel head, easily achieves subsequent performance of the crystal screens. The total elapsed time, from the deposition of the mother liquor drops through protein addition, is < 45 seconds. The Screenmaker Xtal platform also performs the preparation of fine and coarse mother liquor screens/grids. The product features the Nanobuilder software system that enables a wide range of applications and data manipulation, and a data transfer architecture designed to facilitate the importation of data from screen creation engines.

Like the Nanodrop™, Innovadyne's Screenmaker 96+8™ incorporates the company's proprietary non-contact dispense technology, coupled with traditional syringe dispensing and an integrated tip washing system. The result is a next generation workstation that enables the repetitive dispensing of highly viscous mother liquor cocktails and rare proteins with excellent precision and accuracy, negligible crossover contamination, minimal dead volume and no need for disposable tips (with their associated cost and downtime).

Features

- High-end, fully automated turn-key system for protein crystallography experiments
- Fastest platform on the market for crystallization screen performance -- <45 s
- Can replace 3 liquid handling stations in one multi-faceted application -- screen creation, screen set up and screen performance
- Sitting drop and hanging drop
- Discrete operation of each channel (no manifolds)
- Fast, rigorous wash of all tips simultaneously
- Individual channel articulation
- High-resolution, 5-plate stage (96, 384, and 1536 formats)
- Deep well and crystal plate formats supported
- Isolation of moving parts from sample path
- Easy daily maintenance and installation procedures

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Competitive Comparison

How does Innovadyne Technologies, Inc.'s **Screenmaker 96+8™ Xtal** stack up against the competition in the Protein Crystallography field? See the table below and judge for yourself.

	Innovadyne Screenmaker 96+8	96+1 Contact Xtal Dispensers	96+1 Non-Contact Dispensers	Disposable Tip Xtal Dispensers
Non-contact and contact dispensing (all tips)	yes	no	no	no
96 tip non-contact dispense of both mother liquors and protein	yes	no	no	no
Non-contact dispense of protein	yes	yes	yes	no
Up to 8 independent non-contact additive channels	yes	no	no	no
Transfer of mother liquors from deep well plates to crystal plate	yes	yes	yes	no
Hanging and Sitting Drop	yes	no	yes	yes
Coarse screen formulation	yes	no	some	no
Fine screen creation-grids	yes	no	yes	no
Fine screen creation-random	yes	no	no	no
Large dynamic range (100 nL-120 µL)	yes	no	yes	no
Screens in less than 60s	yes	no	no	no
Fast, rigorous wash of all tips simultaneously	yes	no	yes-16 tips	disposable tips
Individual channel dispense	yes	no	yes	no
High-resolution stage	yes	yes	yes	yes
Deep well and crystal plate formats supported	yes	yes	yes	no