

True Non-contact Technology™

EDC BIOSYSTEMS™

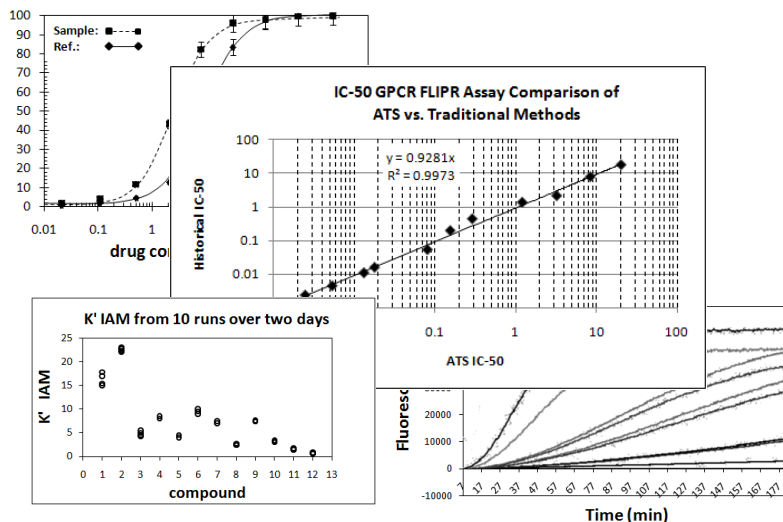
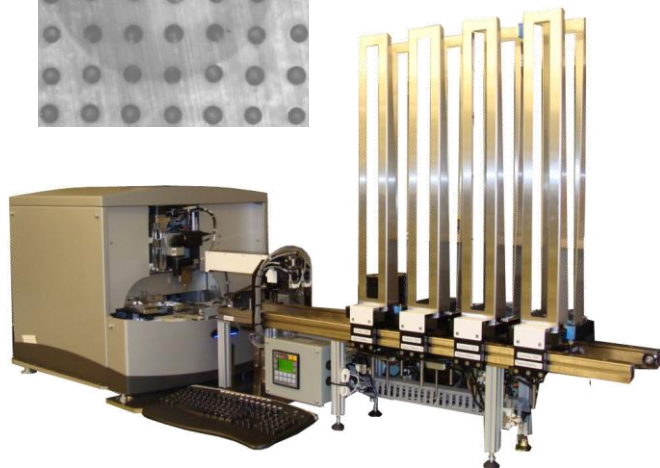
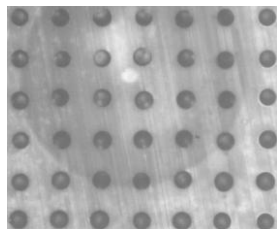


**ATS** :  
EDC Biosystems  
Acoustic Liquid Dispensing

- Open platform for application flexibility
- Lowest starting & dead volumes
- 1.0 nl minimum drop size
- Universal liquid calibration for simplicity
- Confidence in your liquid dispensing
- Lasting precision and performance
- Low cost of ownership
- Quiet operation

[www.edcbiosystems.com](http://www.edcbiosystems.com)

*Expand your capabilities using the ATS Acoustic Liquid Dispenser. Reliably dispense ultra-low liquid volumes for your screens, assays, and arrays while reducing waste, time and costs.*



**More Applications:** No other instrument can provide the level of liquid dispensing flexibility that the ATS has. From pre-plating of compounds for screening, dose-responses, hit-picking, plate reformatting and consolidation, to PCR, protein crystallography, niche arrays, and delivery of liquids onto microfluidic devices, the ATS is designed and built ready to handle any application requiring accurate and precise liquid transfers of ultra-low volumes.

### What is True Non-contact Technology?

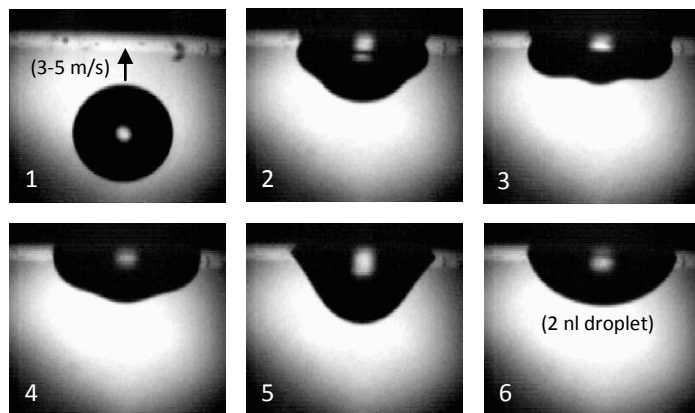
A means for transferring liquid from a source to a destination without the use of pins, tips, syringes or a capillary device. The transfer is direct, accurate, and extremely repeatable.

**Higher Performance:** The ATS can dispense from 96, 384, 1536 & 3456 wellplates. Transfer liquid from your choice of source plate\* into any destination substrate imaginable.

Total liquid transfer volumes start as low as 1.0 nL. A wide range of liquids can be transferred by the ATS using any calibration available on the system.

The ATS has a lower starting and dead volume than any other automated instrument, delivering high performance while conserving resources and reducing costs.

- ❖ Includes wellplates available from Aurora /Nexus, Corning Inc., and Greiner Bio-One. Other plates from other manufacturers may be used as well. Contact EDC Biosystems for complete details.



Dispensed 2 nl droplet landing onto a destination positioned upside-down and directly above the source well. Regardless of high velocity at impact and orientation, the droplet does not disintegrate or fall due to the dominating effect of the liquid surface tension at this volume scale.

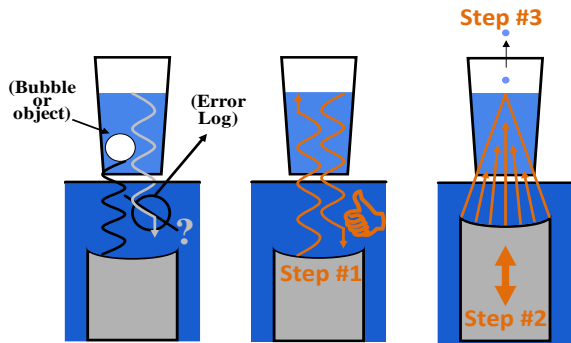
*For your cell-based assays, the ATS can evenly spread nanoliter droplets of the agonist or antagonist over the entire surface area.*



**The ATS Acoustic Liquid Dispenser** transfers chemical and biological solutions with unparalleled accuracy and precision directly from one plate to another. The ATS is flexible, application friendly and is highly adaptable to meet a broad range of liquid handling needs and requirements. Using EDC Biosystems' patented acoustic transfer process, you can perform your experiments with the lowest starting and dead volumes of any liquid handling device on the market. There are no print heads with fixed-spacing or volume-specific tip sizes to deal with, and no cross-contamination. The ATS easily integrates with other laboratory equipment for a complete automated solution.



ATS w/ Mono-Lift single-position plate lifter.

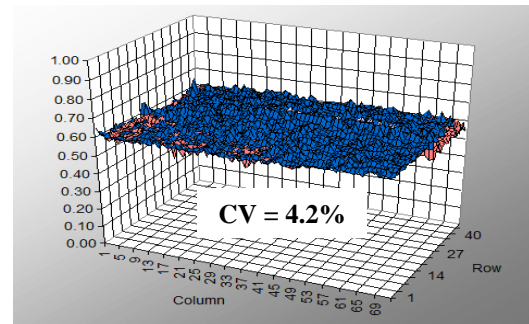


### The ATS Acoustic Liquid Dispensing Edge

The ATS utilizes real-time sensing and focusing technology. Immediately before every dispense, a sensing pulse gathers information on the present acoustic path. Upon receiving a return signal (Step #1), the acoustic lens makes necessary adjustments (Step #2) and then fires the dispensing pulse (Step #3). This entire process takes less than 50 milliseconds.

A key benefit of the ATS real-time dispensing process is its ability to reveal potential problems in the acoustic path. Errors are logged and the ATS moves onto the next dispense. Missed wells are identified and can be re-tried or excluded from the final analyses. This greatly reduces the incidence of false-negatives in experiments.

### Fluorescence Data: 1:1 Liquid Transfer of 2.0 nl From a 3456 Source to a 3456 Destination



**Engineering Excellence:** For every new technology that comes along, a new set of benchmarks define the levels of excellence. In acoustic dispensing, creating smaller drops such as 1.0 nl out from a variety of source plates is one of those benchmarks. Another is the ability to consistently dispense liquid out of ultrahigh-density plate formats. At EDC Biosystems, we are proud of having achieved both.

*Small footprint, rapid installation & setup, wide variety of plates, 1.0 nl dispense, low dead-volume, low maintenance, easy to use!*

**Instrument**

**Consumables**

**Maintenance**

**Data Quality**

**Software**

**Facilities**

**Dead Volume**

**Service**

**New Applications**

**Total Cost of Ownership:** Cost savings is more than just about the price of the instrument. The ATS acoustic liquid dispenser has a low cost of ownership. Installation is easy with only power and clean dry air required. As a result, maintenance costs are kept to a minimum. All functional application software is included. EDC Biosystems' OwnerCare training greatly empowers users to be more independent with instrument ownership. The ATS can also utilize a wide range of source plates without sacrificing low dead-volumes or performance, lowering consumable costs.



EDC Biosystems, Inc. Fremont, California, U.S.A.

**Reduce Waste:** The ATS uses True Non-contact Technology which does not require tips or capillaries. This eliminates tip disposal and cleaning with harsh solvents. In addition, since transferred liquid volumes can be orders of magnitude less than conventional liquid handling methods, the entire assay or experiment can also be miniaturized, greatly reducing consumable and chemical waste.

### specifications

- fluid viscosity: 0–20 cP
  - surface tension: 27–72 dynes/cm
  - density: 0.5–2.0 g/cm<sup>3</sup>
  - transfer volume: 1 nl to 2 µl+\*
  - transfer variability: <10% CV
  - 384 wellplate replication: <2.5 min\*
  - 1536 wellplate replication: <6 min\*
  - 3456 wellplate replication: <13 min\*
- \* Larger volumes increase transfer times  
\* For a single unit–volume well–to–well transfer

### system components

- internal coupling fluid circulation system
- wellplate charge–neutralizing system
- CCD camera wellplate monitoring system
- wellplate interference safety sensor
- internal barcode reader
- internal destination plate flipper
- ethernet–based connectivity
- built–in Windows based PC

### special features

- application and mapping software included
- quick–change destination grippers
- real–time data management system
- single–position plate load/unloading available
- landscape wellplate orientation for both source and destination plates
- workcell integration and automation–ready

### dimensions and facilities

- size: 71 cm W x 78 cm D x 65 cm H
- weight: 115 kg
- clean dry air: 60–80 psi, 2 CFM
- electrical: 110 VAC, 50/60 Hz or 230 VAC, 50 Hz
- coupling fluid: distilled water (400 ml)

### distributors



www.automedsystems.com



www.zinsser-analytic.com

EDC Biosystems, Inc. 49090 Milmont Dr., Fremont, CA 94538 | p 510.257.1500 | f 510.257.1186 | www.edcbiosystems.com