



# Features and Benefits of the U-2D Micro Sample Management System - Tech Information

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**More than a 96-well plate — it's a smarter way to manage your low volume HPLC or GC samples.**

## **Modular Micro-Sample Management**

**Feature:** U-2D™ fits into a 96-well plate format but functions as a modular sample system.

**Benefit:** Offers flexibility to use as a plate or remove inserts for vial-based workflows—ideal for labs needing both.

## **Cost-Efficient Upgrade**

**Feature:** Comparable in price to certified precision point inserts and more than 30% less than fused insert vials.

**Benefit:** Delivers premium performance without premium pricing—maximize your lab's budget.

## **High-Precision LCMS-Grade Glass Inserts**

**Feature:** Bubble-resistant, silanized glass with tight dimensional tolerances.

**Benefit:** Improves sample stability, reduces interaction with sensitive compounds, and eliminates the need for extra prep steps like vortexing or centrifuging.

## **Autosampler Compatibility**

**Feature:** Compatible with most modern HPLC/LCMS autosamplers and trays.

**Benefit:** Seamlessly integrates into existing workflows—no need to overhaul your equipment.

## **Increased Sample Throughput**

**Feature:** Up to 92 more samples per bay vs. 2mL vial trays (e.g., Agilent 1200).

**Benefit:** Boosts efficiency and reduces downtime in high-throughput environments.

## **Centrifuge-Ready Design**

**Feature:** Rack and base tested up to 2,500 x g.

**Benefit:** Confidently use in demanding prep workflows without compromising structural integrity.

## **Cryo-Compatible**

**Feature:** Performs like a standard glass insert plate under cryogenic conditions.

**Benefit:** Reliable for cold storage and sensitive sample preservation.

### Sensor-Friendly Construction

**Feature:** Rack and base ensure full contact with no air gaps—ideal for capacitance sensors.

**Benefit:** Accurate liquid level detection across a wide range of instruments.

### Superior Thermal Transfer

**Feature:** In rack-only mode, all inserts are exposed directly to heat transfer media.

**Benefit:** Faster, more uniform solvent reduction and improved analyte recovery.

### Reusable, Stackable Base

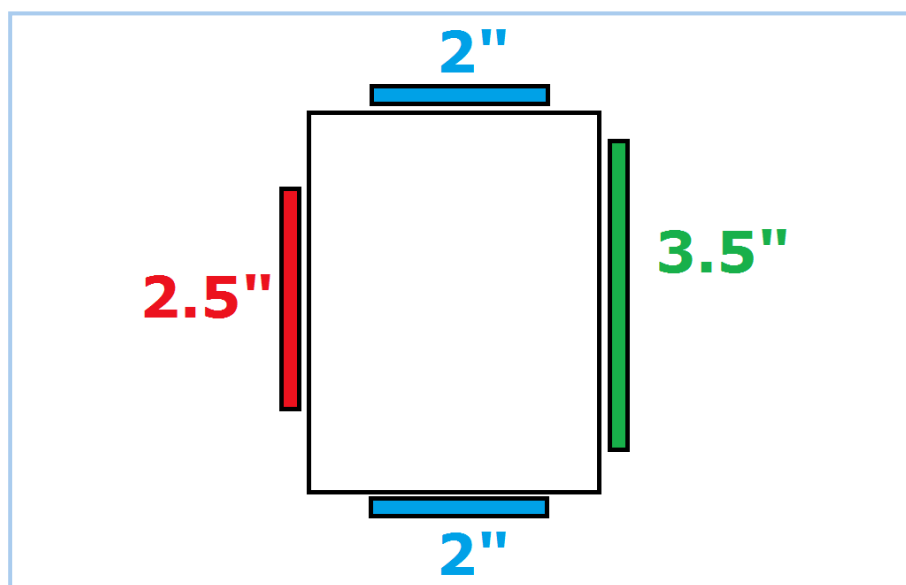
**Feature:** ANSI/SLAS-compliant base with interlocking design.

**Benefit:** Saves space, supports automation, and enhances lab organization.

### Secure Labeling Options

**Feature:** Low-energy polypropylene tabs resist smearing; compatible with custom markers.

**Benefit:** Maintain clear, durable sample ID and chain of custody.



### Solvent-Resistant Sealing Options

**Feature:** Silicone mats and zone-free films available; chemical-resistant options for HPLC solvents.

**Benefit:** Protects volatile samples and minimizes evaporation loss.

### Glass vs. Plastic Advantage

**Feature:** Wells made of glass resists leachables, supports more solvents, and offers better clarity.

**Benefit:** Cleaner results, broader method compatibility, and reduced MS contamination.

### Enhanced Visual Inspection

**Feature:** Clear, glass-bottom inserts allow full visibility of each sample.

**Benefit:** Quickly detect:

- Precipitation
- Air bubbles
- Color changes
- Missed fills
- Dirt or debris

This level of clarity is unmatched by conventional plastic or glass-lined plates, improving quality control and reducing rework.

## **Stackability & Nesting**

**Feature:** Racks with inserts can be stacked securely with only one base at the bottom.

**Benefit:** Saves space and improves workflow efficiency. Interlocking design ensures stability during storage or transport. (*Note: Bases should not be stacked on top of holders.*)

## **Eco-Friendly Design**

**Feature:** The reusable base is not discarded after use.

**Benefit:** Reduces plastic waste and environmental impact—making U-2D™ a greener choice compared to disposable plate systems.

## **ANSI Compliance**

**Feature:** Fully meets all ANSI/SLAS standards for 96-well plates, including footprint and well spacing.

**Benefit:** Ensures compatibility with most lab automation systems. While plate height may differ from others (as ANSI does not standardize height), most autosamplers can be easily adjusted to accommodate it.



Click [HERE](#) for U-2D™ ordering information and pictures

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